

## Schedule A - Culvert

### Project Description

(Please complete one Schedule for each crossing)

#### Location

Site Name/No/Civic Address: \_\_\_\_\_

Please mark location on a copy of a topographic map (preferably at 1:50,000 scale) or Google Earth Image and include as a separate attachment with the application.

If including a 1:50,000 Topographic Map, Please Provide:

Map No: \_\_\_\_\_

Or, UTM Coordinates:

N \_\_\_\_\_ E \_\_\_\_\_ NAD \_\_\_\_\_ ZONE \_\_\_\_\_

#### Design

##### Drainage Area Profile:

Drainage Area: \_\_\_\_\_ km<sup>2</sup>

Main Channel Length: \_\_\_\_\_ km

Slope of Drainage Area: \_\_\_\_\_ %

##### Drainage Area Classification:

Forest: \_\_\_\_\_ %

Barren: \_\_\_\_\_ %

Wetland: \_\_\_\_\_ %

Urban: \_\_\_\_\_ %

##### Hydrologic Details:

Return Period: 1: \_\_\_\_\_ years

Estimation Method: ☐ Rational ☐ TR55 ☐ RFFA ☐ Other \_\_\_\_\_

Maximum Flow: \_\_\_\_\_ m<sup>3</sup>/s Design Flow: \_\_\_\_\_ m<sup>3</sup>/s

##### Description of Estimation:

Please show calculation(s) below or attach separate sheets, if required.

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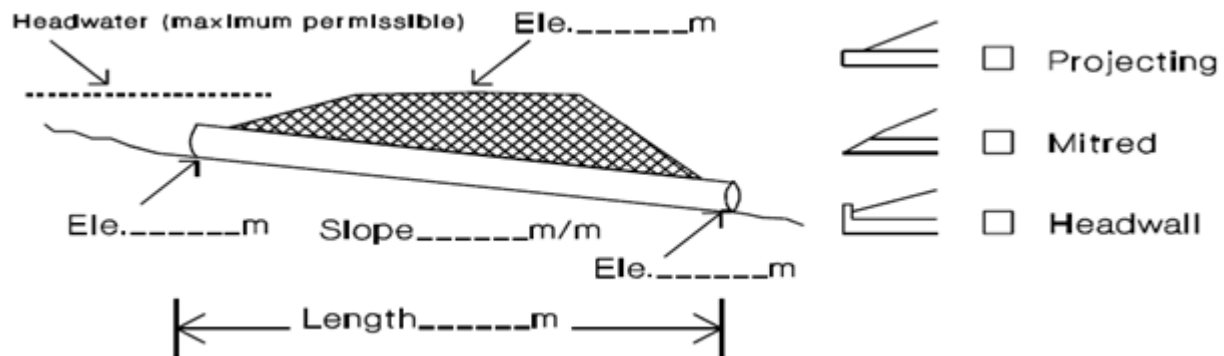
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## Design (cont'd)

Culvert Shape: ☐ Round ☐ Pipe-arch ☐ Other \_\_\_\_\_  
Culvert Material: ☐ Steel ☐ Concrete ☐ Aluminum ☐ Other \_\_\_\_\_  
Headwall Type: ☐ Concrete ☐ Wood ☐ Rip-rap ☐ Other \_\_\_\_\_  
Number of Pipes: \_\_\_\_\_ Length: \_\_\_\_\_ metres  
Width: \_\_\_\_\_ mm Height: \_\_\_\_\_ mm (for arch-pipe)  
Diameter: \_\_\_\_\_ mm (for round pipe)  
Max Velocity: \_\_\_\_\_ m/s Min Velocity: \_\_\_\_\_ m/s

If the undertaking involves replacing an existing culvert, please provide dimensions of existing culvert and reasoning behind the replacement (undersized, collapse, etc.): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Complete the diagram below and check inlet/outlet type:



## Construction

Equipment to be used: \_\_\_\_\_

Proposed dewatering method: \_\_\_\_\_

Briefly describe how erosion control and stabilization will be carried out:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Briefly describe how site restoration will be carried out:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Technical guidelines, departmental policies and application forms are available at:

<https://www.gov.nl.ca/ecc/waterres/permits-licenses/appforms/>