

Guideline for Debris Removal for Culvert Maintenance

OBJECTIVE:

This guideline identifies best management practices for removing woody debris from watercourses. It also addresses routine maintenance of culverts and bridges at road or formal trail crossings. Debris may need to be removed when it is obstructing the flow of a watercourse, affecting flooding or impacting the integrity of structures directly or through flow deflection.

CVC does not support the removal of woody debris within watercourses, floodplains or other natural areas where there is no imminent risk to existing infrastructure, life or property. Woody debris in streams, on the forest floor or in a woodland is important for many natural processes. Debris decomposes over time and supports nutrient cycling, soil formation, forest succession, wildlife habitat and biodiversity.

CVC supports regular inspection of culverts and bridges along with debris removal if the buildup of woody debris threatens urban infrastructure.

CVC has developed the following criteria that should be met to identify areas where woody debris removal should occur.

- The debris buildup poses an imminent risk to culvert infrastructure or may cause flooding of private property, roadways or other public infrastructure.
- The debris buildup is within 10m (30ft) of an existing crossing structure or below the first meander bend, whichever is greater.
- The debris accumulation is a result of recent flooding or storm events.
- There is no significant buildup of sediment behind the debris.
- Flow diversion is not required.
- There will be no vehicular or construction equipment within the watercourse and there will be no grading in order to achieve access to the woody debris.
- Woody debris removal will be by hand if feasible.
- Woody blockages by trees or shrubs still rooted in the bank will be cut to ensure that the root structure remains in the bank. No grubbing of the bank will occur.

The following are considered best management practices that should be followed for all debris removal projects in order to minimize impacts to natural features:

- Debris that has potential to cause property damage or flooding should be removed as soon as possible to avoid further debris buildup.
- Debris removal should be within the appropriate fisheries timing window (please contact CVC if you are unsure of the timing window for the watercourse).
- As soon as possible prior to the removal of the debris contact CVC to advise of the removal and to obtain advice.

Notes:

These activities are described under the *Fisheries Act* self assessment process. It is the opinion of CVC that by following the criteria and best management practices the project does not require review by Fisheries and Oceans Canada (DFO).

The transportation, disposal or reuse of woody material should follow the regulations set out by the Canadian Food Inspection Agency for emerald ash borer or Asian long horned beetle.

It is the responsibility of the proponent to ensure that they are in compliance with all legislation including the *Endangered Species Act*. If the watercourse is identified as habitat for endangered species, it is recommended that you contact the Ministry of Natural Resources.

Notes from the Ministry of Natural Resources – Endangered Species Act:

Review under the Endangered Species Act, 2007 (ESA), is the responsibility of the proponent and is provided here for information only. All consultation must be directly between the proponent and MNR. Under the ESA, many aquatic species receive species protection and habitat protection (Section 9 and 10 of the ESA). Redside Dace is a species found within a number of watersheds draining into Lake Ontario within the GTA. Any in or near-water activities that may impact Redside Dace or other species protected under the ESA require review by MNR to ensure that the activities will not be in contravention of Section 9 or 10 of the ESA.

It is important to note that woody debris is a critical habitat component for Redside Dace and many other aquatic species and is integral to aquatic ecosystems. Woody debris removal activities should be limited to those sites that are a threat to infrastructure or pose a risk to public safety (e.g. flooding).

Given the urgency associated with the removal of woody debris that may be impacting infrastructure and/or public safety following severe weather events, MNR will work with municipalities to ensure timely review of debris removal activities under the ESA. To expedite review, municipalities are urged to contact MNR Aurora District with the following information:

- Municipal contact information (name, position, contact details)
- A map of debris removal locations and UTM coordinates in locations identified to be the habitat of Redside Dace and upstream of these areas (see regional Redside Dace screening maps)
- Timelines associated with debris removal activities
- Information pertaining to how debris removal activities meet the criteria outlined above by CVC
- Information should be sent directly to Emily Funnell, Species at Risk Biologist, MNR Aurora District, at emily.funnell@ontario.ca (subject line to read Municipal Debris Removal for Culvert Maintenance).