

Since August 2011, MVC staff have been receiving inquiries from concerned residents requesting clarification from MVC and the City with regard to low water levels along the Trans Canada Trail in Stittsville, as a culvert was installed along the trail.

In 2010, the upper reaches of Poole Creek was classified as a municipal drain. MVC became involved in this process first in 2003. In 2010 MVC issued permission for works after a technical review of the Engineer's report. The report mainly addressed the removal of

beaver dams and the replacement of existing infrastructure. MVC was satisfied that the ecological and hydrological function to the wetlands would be negligible.

As a result of the recent concerns, MVC requested clarification on the works related to the drain. City staff confirmed that all works were in compliance with the Engineer's report. MVC is currently investigating and monitoring impacts of low water levels in the watershed.

Upper Pool e Creek Wetl and Complex Current Conditions

Location

Lots 19, 20, 21, Concession XI, Goulbourn Ward, (formerly RMOc)

The Upper Pool Creek wetland lies west of West Ridge Road of the town of Stittsville and south of Hazeldean Road. It is bisected by a former railroad bed, which now is a section of the Trans Canada Trail (TCT). The trail is used intensively by the public.

Description

The wetland complex is composed of a number of wetland types, which include two large marshes, on either side of the TCT. The north portion covers about 37 ha, and the southern portion approximately 24 ha respectively. Adjacent to the marshes lie five individual shrub, brush and treed swamps, totaling 31 ha. Beyond these are stands of moisture tolerant forests.

At the time of inspection no inundated wetland areas were visible, the exposed soil appeared to have recently been under water.

Culvert along Trans Canada Trail

The culvert is located approximately 1100 m west of the eastern trail entrance. The equalizer connects the northern part of the marsh to the southern part of the marsh and is situated on the main waterway. It consists of a 4-foot steel culvert, the bottom of which is partially filled with soil and gravel. The present culvert was installed in the fall of 2010 to replace an older culvert of similar diameter. The elevation of the replacement culvert is reported to be somewhat higher than the previous structure.

During a site inspection conducted on September 24, 2011 it was noted that with the exception of a small puddle the culvert as well as the incoming and outgoing stream were found to be dry. Several green frogs, a juvenile bullfrog and some stressed central mudminnows were found in the puddle. The marsh upstream was found to be dry. The marsh downstream was similarly found to be dry.

Observations

The fact that cattail marsh is situated on either side, upstream as well as downstream of the equalizer culvert, indicate that the culvert was not the control feature for either side of the cattail marsh. It was determined that the present dry condition of the marsh was not influenced by the culvert replacement because both sides appear equally dry at the present time, and since the current culvert invert is reported to be situated at a slightly higher elevation than the previous one. The downstream marsh leads into a shrub-and-brush swamp. This suggests that the former beaver dams had not been the major water level control feature for the marsh 700 m upstream.

It follows that the current absence of water in the wetland is due to causes other than the maintenance work of 2010.

Impacts

Impacts of dry conditions upon some wetland wildlife, such as minnow species or muskrats will be severe. Other wildlife, such as frogs and turtles will burrow into muddy areas and suffer fewer losses. Wetland birds will have moved to alternate locations.

Note: It is a recognized fact that optimum conditions for many wetland mammal and waterfowl species require stabilized water levels for a number of years, to be interrupted by occasional dry-outs to aerate the soil.

The wetland plant composition will not become altered provided that future water levels will re-flood the marsh.

