

February 25, 2022

Noganosh Lake Provincial Park – Noganosh Water Control Structures Rehabilitation & Conversion

Public notice inviting comment on a Class Environmental Assessment Category B project

Noganosh Lake Provincial Park is principally located in Brown Township, Parry Sound District, within Ontario Parks' Northeast Zone. Maintenance work will be undertaken on the Main Dam and the Plug Dam in Noganosh Lake Provincial Park, Ontario (Figure 1). These two structures control the Noganosh Lake water level and all linked lakes in Noganosh Lake Provincial Park. This work is being undertaken in accordance with the approved management direction for the park and the Class Environmental Assessment for Provincial Parks and Conservation Reserves.

A Dam Safety Assessment Report of the Noganosh Lake water control structures was issued in March 2021, Dam Safety Assessment – Noganosh (CIMA+, 2021). The report conclusions are:

1. The Main Dam is in fair condition and does not meet stability criteria.
2. The Plug Dam is in poor to fair condition. It is not sufficiently high and there are risks of uncontrolled overtopping.

Report engineers recommend maintenance of both structures within the next two years. If they are not maintained and a catastrophic failure were to occur the environment in the system would be negatively affected.

A review of maintenance alternatives for the Main Dam and Plug Dam was undertaken. The following maintenance alternatives were reviewed:

1. No change to the geometry of the Main Dam and armouring of the Plug Dam.
2. Lowering part of the Main Dam to a crest elevation of 215.15 metres (m) to create an overflow fixed crest weir, removing the need for operation, and armouring the Plug Dam to use it as a secondary spillway.
3. Lowering the entire Main Dam to a crest elevation of 215.15 m to create an overflow fixed crest weir, removing the need for operation, and raising the crest of the Plug Dam to minimize overtopping.

All of the alternatives will maintain the existing normal summer water elevation of 215.15m.

Alternative 3 is preferred. Alternative 3 passes more water at the Main Dam and minimizes overtopping of the Plug Dam. Alternative 3 details are provided below.

Main Dam work:

- Remove the deck and lower the entire Main Dam to an elevation of 215.15 m to increase discharge capacity.
- Stabilize the Main Dam with rock anchors at a regular spacing in the weir and gravity dam section, and in each pier. Build a concrete slab on top of the Main Dam to transfer the anchor load to the dam core.
- Permanently close the stop log sluiceway. A 20:1 “V” notch section of 4.2 m wide by 10.5 centimetres (cm) deep is built over the sluiceway, providing a low flow passage between the piers. No operation is needed. Leave logs in place and use as formwork to pour a concrete plug on the downstream side.

Plug Dam work:

- Raise the crest of the Plug Dam to an elevation of 216.40 m (1.08 m increase) to minimize overtopping and protect against wave action.
- Drive sheet piles into the Plug Dam core to reduce seepage through the dam.

The following changes will be experienced once lake control structure maintenance is complete:

Hydraulics:

- No change to the upstream water level for normal conditions during spring, summer and fall.
- In the current operation scheme, the water level was lowered up to a maximum of 30 cm during winter. Once the maintenance is complete, the summer water level of Noganosh Lake and all linked lakes will be maintained year-round since the Main Dam will no longer be operable.
- There are no flows passing over the Plug Dam under normal conditions.
- Minor increase in the lake level during floods.
- A “V” notch section will allow for a minimum flow below the Main Dam except in severe low flow conditions. The “V” notch has no impact on flood levels.

Environment:

- Navigation on the lakes upstream of the Main Dam will be unchanged during the recreation season in spring, summer and fall. Water levels on Noganosh Lake and all linked lakes will be up to 30 cm higher than existing winter level under normal conditions.
- There will no longer be flows passing over the Plug Dam in normal conditions and as such there will be potential downstream impact/loss to wetland areas downstream of the Plug Dam.
- The Noganosh Lake Main dam site as a whole, is documented in Noganosh Dams Rehabilitation Project Cultural Heritage Assessment Report and Heritage Impact Assessment (Content Works, 2021) as having heritage value, but no heritage attributes will be affected by this alternative.

- The project has the potential to affect species at risk during construction, requiring mitigation measures to be developed and implemented. The long-term effects of the project on winter habitat for SAR and fish species and their habitats are not fully understood.

The Noganosh Water Control Structures Rehabilitation & Conversion is being evaluated using the *Class Environmental Assessment for Provincial Parks and Conservation Reserves* (Class EA PPCR; Category B). Your comments pertaining to the Class EA PPCR project can be submitted directly to Ontario Parks using the contact information below. A Class EA PPCR Notice of Completion will be sent to those who submit comments or request further notice.

For more information on the project, to submit comments¹, or to request further notice, please contact the undersigned. Your comments on the project will be accepted during a 30-day comment period from March 2nd to March 31st, 2022. We will carefully consider all submissions when evaluating the project's environmental effects.

When the project evaluation is completed and approved, Ontario Parks may proceed to implement the project without further general notice.

I look forward to hearing from you.

Sincerely,



Cheryl Moore – Park Superintendent, Noganosh Lake Provincial Park

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¹Ontario Parks is collecting your personal information and comments under the authority of the Ontario's *Provincial Parks and Conservation Reserves Act, 2006*. Any personal information you provide (address, name, telephone, etc.) will be protected in accordance with the *Freedom of Information and Protection of Privacy Act, 1990*. Your comments will become part of the record of consultation and may be shared with the general public. Your personal information may be used by the Ontario Parks to send you information about future ministry planning initiatives in the park area. If you have questions about use of your personal information please contact Will Kershaw, Senior Management Planner, Ontario Parks Northeast Zone at 705-919-5223.

Figure 1: Noganosh Lake Provincial Park – highlighting the locations of the Main Dam and Plug Dam

