

## Notice of determination for Canadian Impact Assessment Registry

This notice of determination is being issued by Parks Canada under the *Impact Assessment Act*. Parks Canada has decided that the project is not likely to cause significant adverse environmental effects.

The invasive alien insect species Hemlock Woolly Adelgid (HWA) has been detected in Kejimikujik. This Detailed Impact Assessment (DIA) uses the Resist-Accept-Direct decision framework to examine the alternatives available to Parks Canada, in collaboration with the Mi'kmaq, to address the HWA infestation. Comparing the risks and benefits of the default Accept/Adapt (or do nothing) approach against the risks and benefits of active management using a combined Resist and Direct approach results in the following findings.

Hemlock forests which are not actively managed are expected to undergo significant changes in structure and function as a direct result of the HWA infestation. Because of the large scale of hemlock forest, the limited availability of options to control HWA, and the scale at which available active management interventions can be applied, this is the likely outcome for the majority of hemlock stands in Kejimikujik.

Resisting the effects of HWA infestation through the proposed application of chemical treatment in priority stands will allow hemlock to persist on some of the landscape, and will help to maintain the characteristic structure and function of hemlock forest within treated stands. The maintenance of some hemlock stands will serve as a mitigation against potential cascading effects on other species attributable to forest changes from HWA. Potential adverse effects, such as those associated with non-target insects, are likely short-term, limited in scale and largely mitigatable. Chemical control will help bridge the gap between the current status of the HWA infestation and a time when more sustainable approaches to active management of HWA, such as biocontrol, become available in the future.

The Mi'kmaq's ability to use hemlock and associated understory plants will be compromised if Parks Canada does not intervene in the HWA infestation. The clear identification and communication of which trees are treated with imidacloprid will give the Mi'kmaq a choice as to whether they use those trees and surrounding understory plants for traditional use, or use other untreated stands. Risks associated with the active management of HWA on the health of the Mi'kmaq are considered to be mitigatable.

The proposed application of silviculture within Jeremy's Bay Campground is primarily to accommodate visitor experience and safety objectives. Directing change in this manner will hasten the transition to a forest type dominated by tree species other than hemlock faster than would have occurred under a do nothing approach. The scale of these changes to the structure and function of the forest will be small, occurring within the limited area of JBC (~50 hectares). Potential adverse effects to visitor experience will be mitigated through timing of activities to avoid peak visitor season and through public information and education. Parks Canada will educate the public about the HWA infestation and share information about its collaborative efforts with the Mi'kmaq to manage HWA infestations.

Active management of HWA may be beneficial for the cultural landscape in comparison to doing nothing. However, in order to fully realize the benefits among many objectives, close collaboration with the Mi'kmaq will be essential.

Comments on the draft DIA were received from environmental non-governmental organizations (ENGOs), the general public, local stakeholders, and government departments. Most organizations and individuals that provided feedback were generally supportive of the project, however some concerns about the best way to implement the project were raised, and recommendations provided. The key areas of concern identified by multiple parties included 1) how to best implement silvicultural interventions in JBC, 2) the need for a waterbody buffer for IMA-jet treatment, and 3) the need for additional outreach and education on HWA and active management approaches for the public, visitors, stakeholders and staff. This feedback has resulted in changes to the project, and additional explanation within the DIA.

The Mi'kmaq of Nova Scotia provided several recommendations on the project and draft DIA through engagement and consultation. This included concerns about impacts to Mi'kmaq health, the application of a 15 metre buffer around watercourses in stands where IMA-jet will be used, a desire to identify and treat legacy "grandmother" / culturally modified trees as part of the Pilot Project, an interest in project interactions with the mycorrhizal network in hemlock stands, and continued collaboration with direct involvement of Mi'kmaq in the Pilot Project to learn and help inform shared decision making. These recommendations informed the selection of valued components, development of mitigations, as well as plans for involvement in the Pilot Project and continued collaboration and shared decision making around HWA management.

Future approaches to HWA management beyond the proposed pilot project will be developed in collaboration with the Mi'kmaq of Nova Scotia. An HWA Management Plan for Kejimikujik will be developed, and will take into consideration desired outcomes for the forest ecosystem and other valued components, lessons learned from early implementation, monitoring and research.

Mitigation measures will be implemented for the following during the Pilot Project: Eastern hemlock forests, insects, wildlife, cultural landscapes, cultural resources, Mi'kmaq health, visitor experience, soil, water, and vegetation. The development of additional mitigations will be the subject of ongoing collaboration between Parks Canada and the Mi'kmaq of Nova Scotia.

Taking into account implementation of mitigation measures outlined the DIA, the project is not likely to cause significant adverse environmental effects.

To request a copy of the Detailed Impact Assessment report, contact:

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