

**POLICY DOCUMENT**

# Threatened, Endangered & Environmentally Critical Plant Species at Risk on the ALTO Southern Route

*Federal SARA Obligations, Critical Habitat, and the Frontenac Arch Biosphere Reserve*

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## **CENTRAL CONCLUSION**

The southern corridor cannot proceed without a detailed, mandatory flora impact assessment meeting SARA Section 79 obligations. Based on current knowledge of species distribution, such an assessment would likely identify critical habitat destruction that cannot be permitted, mitigated, or offset without jeopardizing the survival or recovery of multiple listed species in Canada. As a federal Crown corporation, Alto has no discretion about whether these obligations apply. They do.

## **Section 1 — The Frontenac Arch: An Irreplaceable Plant Diversity Corridor**

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The Frontenac Arch Biosphere Reserve, designated by UNESCO in 2002, is widely recognized as the most biodiverse terrestrial region in Canada. Five separate forest regions converge here on a geological land bridge connecting the Canadian Shield to the Adirondack Mountains. A comprehensive biodiversity study identified 1,592 vascular plant and vertebrate species within the biosphere region, including a high proportion of species at their range limits. Many are listed under SARA.

The Frontenac Arch's ecological value is not simply a matter of what lives there. It is the region's function as a migration and dispersal corridor that makes it irreplaceable. Plant species colonize new territories, recover from local disturbance, and maintain genetic diversity through seed dispersal, which in this region is facilitated by animals moving north-south along the Arch. A permanently fenced HSR corridor cutting across the Arch would sever this function for all ground-level dispersal. For species already reduced to a handful of small populations, this isolation is not a theoretical future risk: it is an acceleration toward extirpation.

High-speed rail infrastructure is a fully fenced, grade-separated linear barrier with no level crossings. The corridor is up to 60 metres in total maintained width. For species that cannot fly or cross open ground rapidly, including most plant communities and their seed-dispersal vectors, a permanently fenced HSR corridor is functionally impassable.

## **Section 2 — Plant Species at Risk in the Southern Corridor**

### **2.1 Deerberry — The Most Critical Case**

Deerberry (*Vaccinium stamineum*) is classified as Threatened under SARA Schedule 1. Its situation in Canada is extremely precarious. Less than one percent of the global range of Deerberry occurs in Canada. There are only five extant populations in Canada, all in Ontario, with the great majority in the Thousand Islands region. At least six additional populations in the Niagara region have been extirpated in the last 70 years.

Critically, no natural seedling establishment has ever been observed in Canada. The Government of Canada's Recovery Strategy for Deerberry warns that its survival depends on maintaining habitat at all currently known sites with no loss of populations. The ALTO southern corridor passes through exactly the landscape type that Deerberry requires: open woodland with Pitch Pine, Red Oak, and White Pine on shallow granite soils, maintained historically by fire. The Thousand Islands Key Biodiversity Area designation (WCS Canada, 2025) explicitly identifies Deerberry as one of the characteristic species of the designated area.

#### **LEGAL THRESHOLD — SARA S. 79(2)**

For a species like Deerberry, which has only five populations in Canada and no recorded natural seedling establishment, establishing that a corridor construction project will not jeopardize recovery is an exceptionally high bar. It is not clear that any technically feasible alignment of the southern corridor can meet it.

### **2.2 Butternut — Endangered and Legally Protected**

Butternut (*Juglans cinerea*) is designated Endangered under SARA Schedule 1, confirmed in a 2017 reassessment. The species has lost most of its range to Butternut Canker, a non-native fungal disease, and approximately 13,000 surviving trees remain in Ontario. A healthy population apparently resistant to the canker was found in the Frontenac Arch, making this population of disproportionate conservation significance nationally. Butternut is found throughout the southern ALTO corridor in deciduous and mixed forests, particularly at forest edges and along waterways. Any construction activity that removes a Butternut tree or damages habitat within a prescribed area around confirmed individuals engages SARA protections directly.

### **2.3 Granite Barren Communities — Irreplaceable Habitats**

The granite barrens of the Frontenac Arch (rocky hilltops and ridgelines with exposed Precambrian bedrock and shallow, nutrient-poor soils) support communities of fire-adapted plants including Pitch Pine, Bear Oak, and Deerberry that exist at their northern limits. Research published in *Applied Vegetation Science* (Cohen, 2023) found that many Frontenac Arch granite barrens are already disappearing due to woody plant encroachment in the absence of fire. Physical destruction through construction is irreversible; no management regime can restore blasted and graded bedrock terrain to a functioning granite barren.

### **2.4 Additional Listed Plant Species**

- Blunt-lobed Woodsia (*Woodsia obtusa*) — Endangered; only known Canadian populations are in the Frontenac Arch and western Quebec
- Juniper Sedge (*Carex juniperorum*) — Endangered; the Salmon River Alvar within the Biosphere hosts what may be the world's largest population
- Small White Lady's Slipper (*Cypripedium candidum*) — nationally rare; documented in Napanee Plain limestone habitats crossed by the southern corridor
- Lakeside Daisy (*Hymenoxys herbacea*) — rare; documented in Napanee Plain alvar communities

## Section 3 – Federal Legal Obligations

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### 3.1 SARA Section 79 – Mandatory Notification and Assessment

SARA Section 79 creates specific obligations for federal projects: when a federal environmental assessment is required, the proponent must notify the competent minister if the project is likely to affect a SARA Schedule 1 listed species or its critical habitat. Alto, as a federal Crown corporation, is subject to these obligations without exception. Notification must occur as soon as this likelihood is known. Given the species identified in Section 2, that threshold has been crossed. SARA Section 79(2) requires that all feasible measures be taken to minimize impacts on listed species and their critical habitat, and that the activity will not jeopardize the survival or recovery of the species.

### 3.2 SARA Section 61 – Critical Habitat Prohibition

SARA Section 61 prohibits the destruction of any part of identified critical habitat. For species with published Recovery Strategies (including Deerberry and Butternut — critical habitat is identified in those documents. This prohibition is absolute and applies regardless of the proponent's identity or the project's public benefit.

#### NOTE ON ONTARIO'S PROVINCIAL FRAMEWORK — BILL 5 (2025)

Ontario substantially weakened its species-at-risk legislation in June 2025 through Bill 5 (Protect Ontario by Unleashing our Economy Act, 2025). The amended Endangered Species Act and its forthcoming replacement, the Species Conservation Act, 2025, narrow habitat definitions, remove harassment prohibitions, and shift to a registration-first model. Federal SARA obligations are entirely unaffected by Ontario's legislation. The 2025 ESA reforms increase the federal legal burden on this project, not reduce it.

## Section 4 – Recommendations

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1

#### Commission and publish a mandatory flora impact assessment meeting SARA Section 79 obligations

Alto must conduct and publish a comprehensive assessment of impacts on all SARA-listed plant species, identifying all sites where critical habitat is likely to be affected, before any route selection is finalised.

2

#### Demonstrate the SARA three-part test for Deerberry

Alto must demonstrate that all reasonable alternatives have been considered, all feasible mitigation will be taken, and the activity will not jeopardize Deerberry's survival or recovery. Given five surviving populations and no natural seedling establishment, this may be an insurmountable threshold for the southern corridor.

3

#### Engage Parks Canada, ECCC, and Ontario MNR formally

Parks Canada should be formally notified of the proximity of the southern corridor to Thousand Islands National Park and the critical habitat of Deerberry. ECCC's SARA competent authority should be formally engaged.

4

**Extend the public consultation period if needed for flora data review**

Community-sourced species occurrence data must be properly reviewed and incorporated before route selection. Formal consultation with the Frontenac Arch Biosphere Network, NCC, and Ontario Nature on botanical species occurrence is required.

5

**Do not treat Ontario's weakened provincial framework as reducing federal SARA exposure**

The 2025 ESA reforms have increased the federal legal burden on this project. Federal SARA is now the primary and in some cases sole operative protection for several species in this corridor.

## Sources and References

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