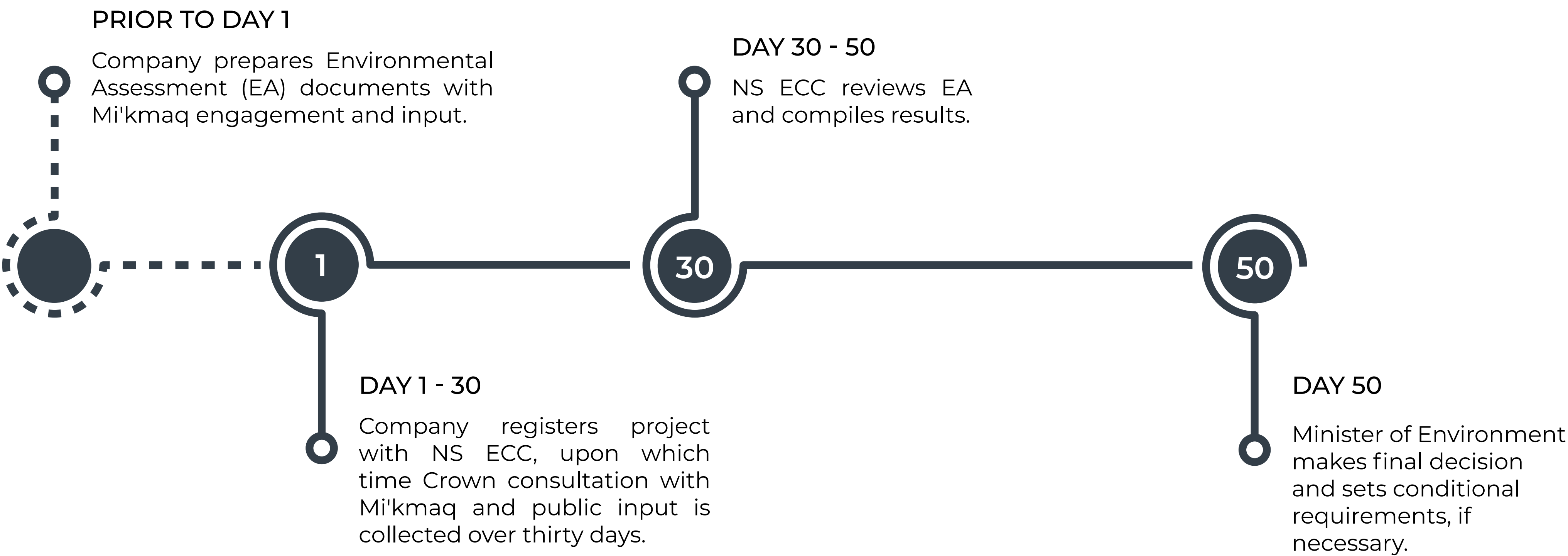


SWEB YELLOW BIRCH ENVIRONMENTAL ASSESSMENT PROJECT

ENVIRONMENTAL ASSESSMENT CLASS I PROCESS

- Is required by Nova Scotia Environment & Climate Change (NS ECC) to ensure that a Project's environmental effects are minimized.
- Identifies and evaluates environmental effects at an early stage in Project development, and recommends mitigation to reduce adverse impacts.
- Public consultation is an integral part of this process. Community is invited to comment on the environmental assessment during the review period.
- Reviewed by NS ECC and other relevant government agencies.
- Nova Scotia Minister of the Environment only provides approval once satisfied that environmental effects have been adequately assessed and addressed.



TYPICAL BASELINE STUDIES



AVIFAUNA



WETLANDS



VISUAL AESTHETICS



AIR QUALITY



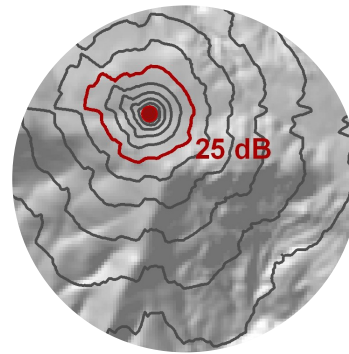
GENERAL WILDLIFE



WATERCOURSES & FISH HABITAT



CULTURAL & HERITAGE RESOURCES



SOUND MODELING



PLANTS



GROUNDWATER & GEOLOGY



SOCIOECONOMIC CONDITIONS

SWEB YELLOW BIRCH ENVIRONMENTAL ASSESSMENT PROJECT

BASELINE SURVEYS

AVIFAUNA (BIRD SURVEYS)

SURVEY TYPE

METHOD

SIGNIFICANT RESULTS

BREEDING BIRD

10-minute point counts were conducted on site from sunrise to ~11AM during 6 survey events.

A total of 751 individuals (61 species) were observed. 5 are SAR: Canada Warbler, Chimney Swift, Common Nighthawk, Olive-sided Flycatcher and Rusty Blackbird, and 8 are SOCC: American Kestrel, American Robin, Bay-breasted Warbler, Boreal Chickadee, Canada Jay, Purple Finch, Red Crossbill, and Swainson's Thrush.

COMMON NIGHTHAWK

7-minute point counts at 8 survey stations on site.

4 individual nighthawks were observed during these surveys.

NOCTURNAL OWL

10-minute point counts with intermittent owl call playback. 7 survey stations on one night of surveys.

No owls were observed during these surveys.

SPRING MIGRATION & DIURNAL

10-15 ten-minute point counts were completed on site from sunrise to ~11AM across 6 survey events.

A total of 457 individuals (55 species) were observed. 2 are SAR: Evening Grosbeak and Rusty Blackbird, and 4 are SOCC: American Kestrel, Blackpoll Warbler, Boreal Chickadee, and Canada Jay.

FALL MIGRATION

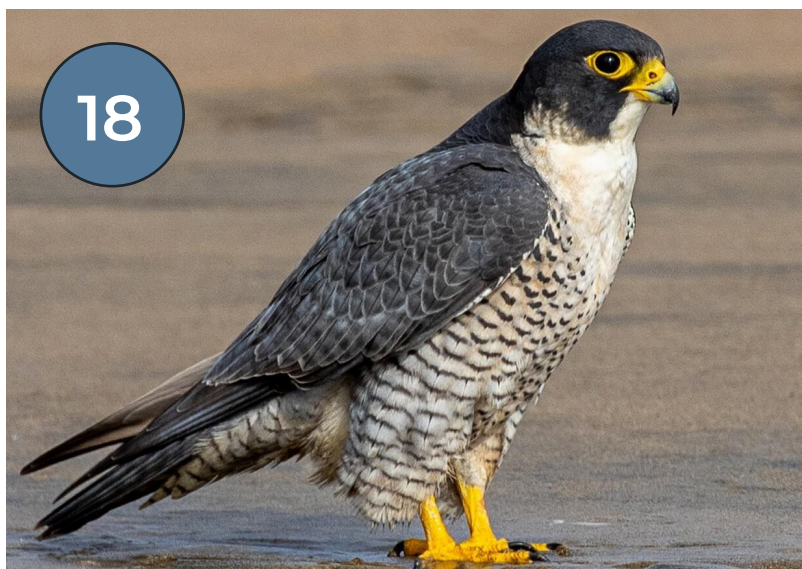
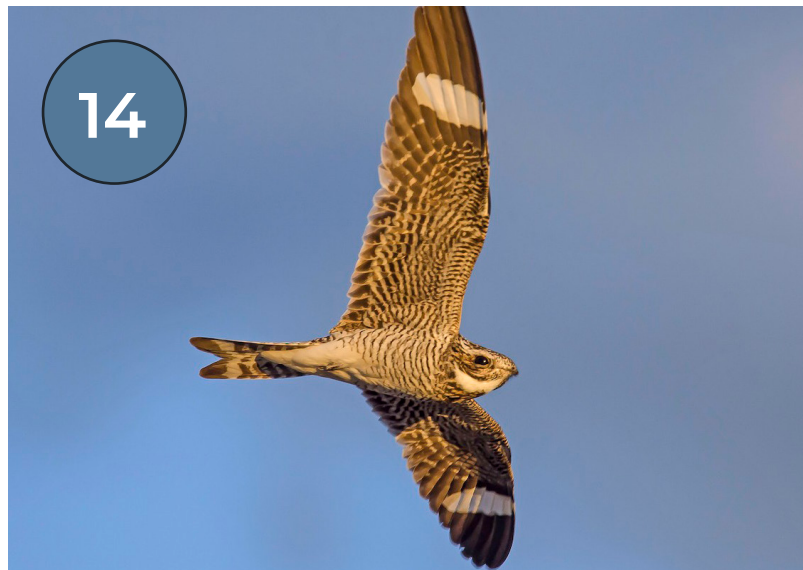
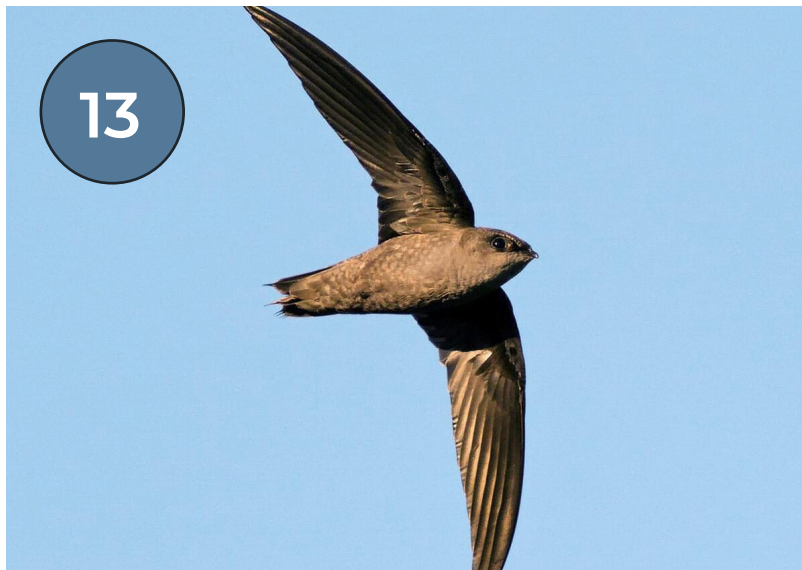
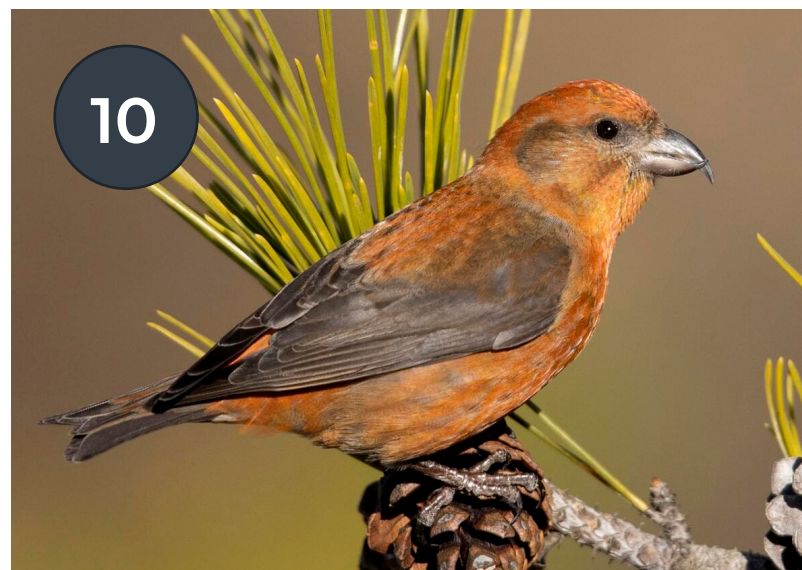
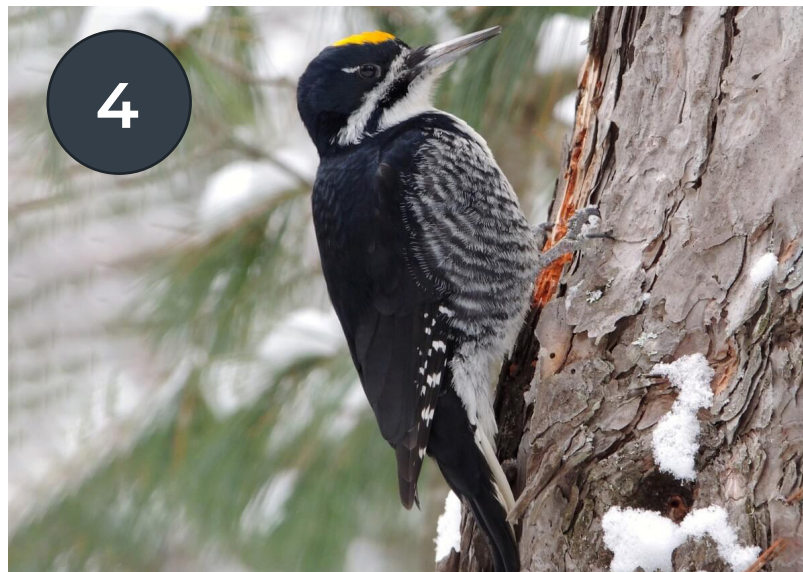
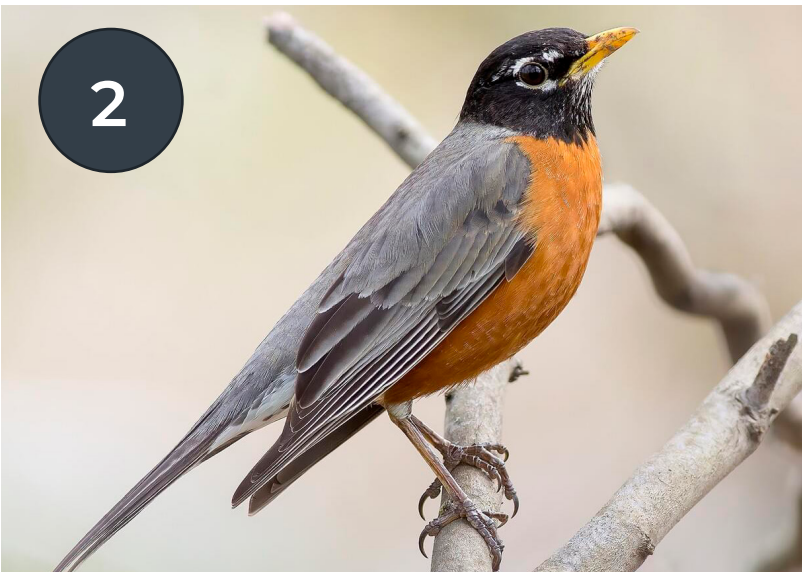
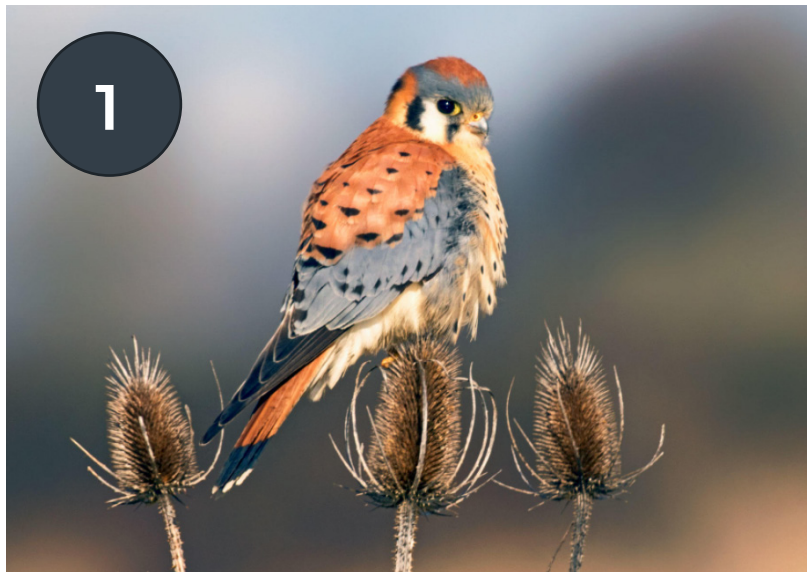
10-15 ten-minute point counts were completed on site from sunrise to ~11AM across 8 survey events.

A total of 800 individuals (74 species) were observed. 4 are SAR: Common Nighthawk, Eastern Wood-Pewee, Evening Grosbeak, and Peregrine Falcon, and 10 are SOCC: American Kestrel, American Robin, Bay-breasted Warbler, Black-backed Woodpecker, Blackpoll Warbler, Boreal Chickadee, Canada Jay, Pine Siskin, Purple Finch and Red Crossbill.

WINTER BIRD

15 ten-minute point counts were conducted on site across 4 survey events.

Surveys are still ongoing, and will be completed by March 31, 2024.



SPECIES OF CONSERVATION CONCERN

- 1

American Kestrel
Photo Source: Gary Grossman
- 2

American Robin
Photo Source: Alex Eberts
- 3

Bay-Breasted Warbler
Photo Source: Keenan Yakola
- 4

Black-Backed Woodpecker
Photo Source: Luke Berg
- 5

Blackpoll Warbler
Photo Source: Simon Boivin
- 6

Boreal Chickadee
Photo Source: Ryan Sanderson
- 7

Canada Jay
Photo Source: Andrew Theus
- 8

Pine Siskin
Photo Source: David Mitchell
- 9

Purple Finch
Photo Source: Frances Higgs
- 10

Red Crossbill
Photo Source: Michael Stubblefield
- 11

Swainson's Thrush
Photo Source: Terence Zahner

SPECIES AT RISK

- 12

Canada Warbler
Photo Source: Dale Bonk
- 13

Chimney Swift
Photo Source: Peter F
- 14

Common Nighthawk
Photo Source: Richard Stebbins
- 15

Eastern Wood-Pewee
Photo Source: John Deitsch
- 16

Evening Grosbeak
Photo Source: Bellemare Celine
- 17

Olive-Sided Flycatcher
Photo Source: Luke Seitz
- 18

Peregrine Falcon
Photo Source: Joshua Stacy
- 19

Rusty Blackbird
Photo Source: Daniel Jauvin

SWEB YELLOW BIRCH ENVIRONMENTAL ASSESSMENT PROJECT

BASELINE SURVEYS

BAT SURVEYS

SURVEY TYPE

METHOD

SIGNIFICANT RESULTS

BAT

ECCC's Canadian Wildlife Service (Atlantic Region) - Wind Energy & Birds Environmental Assessment Guidance Update (ECCC, 2022). Passive monitoring using autonomous recording units (ARU's, SM4BAT, Wildlife Acoustics).

Total of 696 bat calls were detected in the Project Area, including 314 detections of SAR and 133 detections of SOCC. SAR: Little Brown Bat and Northern Myotis and SOCC: Eastern Red Bat, Hoary Bat and Silver-Haired Bat.



SPECIES OF CONSERVATION CONCERN

- 1 Eastern Red Bat
Photo Source: Phil Myers & Jani Hatchett
- 2 Hoary Bat
Photo Source: Merlin Tuttle
- 3 Silver-Haired Bat
Photo Source: Michael Durham

SPECIES AT RISK

- 4 Little Brown Bat
Photo Source: Karen Vanderwolf
- 5 Northern Myotis
Photo Source: Dave Thomas

BASELINE SURVEYS

PLANTS, WETLANDS & PELLET SURVEYS

SURVEY TYPE

METHOD

SIGNIFICANT RESULTS

VEGETATION

Transects were walked throughout Study Area.

137 species of vascular plants were identified. 2 are SOCC: American Beech and Blood Milkwort, no SAR. Total combined length of transects: 24.2 km. Incidental observations of Mainland Moose (SAR) pellets during 2023 vegetation surveys.

WETLAND & WATERCOURSE DELINEATIONS

US Army Corps of Engineers Wetlands Delineation Manual and the Northcentral and Northeastern Interim Regional Supplement Version 2.0 (US Army Corps of Engineers, 2012).

To be determined.
Incidental observations of Brook Trout (SOCC) during Breeding Bird Surveys (2023).

PELLET

Transects were walked throughout Study Area.

Total of 333 observations. The most observed species include: Snowshoe Hare (195) and White-tailed Deer (9). Incidental observations of Eastern Coyote (39), American Red Squirrel (38), North American Porcupine (15), Bobcat (9), Black Bear (2) and North American Beaver (1). Total combined length of transects: 30.0 km.



SPECIES OF CONSERVATION CONCERN

- 1 American Beech
Photo Source: Sara Rall
- 2 Blood Milkwort
Photo Source: Mike N
- 3 Brook Trout
Photo Source: Vermont Fish & Wildlife Department

SPECIES AT RISK

- 4 Mainland Moose
Photo Source: Ryan Hagerty



SWEB YELLOW BIRCH ENVIRONMENTAL ASSESSMENT PROJECT

ARCHAEOLOGICAL RESOURCE IMPACT ASSESSMENT (ARIA)

- Required as part of the Environmental Assessment process
- Conducted under the terms of the Special Places Protection Act
- Purpose of the ARIA is to determine the potential for archaeological resources within the project area and to provide recommendations for appropriate resource management strategies.
- Key components of the assessment:
 - Historical Research Permit
 - Historical background study
 - Archaeological reconnaissance



Source: Davis MacIntyre & Associates

STUDY

ARCHAEOLOGICAL
RESOURCE IMPACT
ASSESSMENT (ARIA)

METHOD

Historic background study and site
reconnaissance survey.

SIGNIFICANT RESULTS

To be determined.

MI'KMAW ENGAGEMENT

The Proponent began initiating engagement and consultation with Mi'kmaq communities as early as 2021, establishing communication through various channels to designated contacts for the respective communities. Key engagement activities that have been carried out by the Proponent till date include the following:

- Introductory email sent to all Mi'kmaq Communities regarding proficiency of Proponent in development of similar projects in Nova Scotia, invitation to further discuss proposed project and potential for collaboration.
- Hand-delivery of letters by SWEB Developmental Director (Jason Parise) to Mi'kmaq communities providing details on the Proponent's Background, plans to develop the proposed project and invitation for further discussion on the projects.
- Convening virtual meetings with representatives of Mi'kmaq communities to provide overview of the proposed project and potential for collaboration.

The Proponent will continue to employ and sustain consultation efforts with the Mi'kmaq Communities throughout the development of the proposed project to ensure their meaningful participation in decisions that could potentially impact indigenous land and resources.

Where issues/concerns are raised, plans to address the issues will be developed and mitigation measures timely implemented to alleviate potential impacts.



Source: Province of Nova Scotia