



Committee of the Whole

Town of Truro
Thursday, January 25th, 2024 – 4:00 p.m.
Town Hall – Council Chambers

A Committee of the Whole meeting for the Town of Truro took place on Thursday, January 25th, 2024, at 4:00 p.m. in Council Chambers.

Present: Mayor W.R. (Bill) Mills, Deputy Mayor C. Hinton, Councillors W. Talbot, A. Graham, B. Thomas, I. McGrath

In Attendance: CAO M. Dolter, Director of Public Works A. MacKinnon, Director of Planning J. Fox, Director of Corporate Services B. Coulter, Director of Parks, Recreation & Culture A. Simms, Fire Chief B. Currie

Regrets: Councillor J. Flemming, Police Chief D. MacNeil

Mayor B. Mills called the meeting to order and began with a Land Acknowledgment, recognizing that we are in Mi'kma'ki, the ancestral and traditional lands of the Mi'kmaq people.

1. **APPROVAL OF THE AGENDA**

On motion of Deputy Mayor C. Hinton and Councillor B. Thomas, the agenda was approved as circulated. Motion carried.

2. **APPROVAL OF MINUTES**

On motion of Councillors I. McGrath and A. Graham, the minutes of November 30th, 2023, were approved as circulated. Motion carried.

3. **NET ZERO ATLANTIC**

Victoria Watson from Net Zero Atlantic delivered a presentation in relation to offshore wind energy. The presentation is attached to these minutes.

4. **URBAN FOREST COMMITTEE – HEMLOCK WOOLY ADELGID**

Urban Forest Committee member Tim McGrath delivered a presentation in relation to the Hemlock Woolly Adelgid. The presentation is attached to these minutes.

5. **ADJOURNMENT**

There being no further business, the meeting was adjourned at approximately 5:15 p.m.

W. R. (Bill) Mills
Mayor

M. Dolter
Chief Administrative Officer



What could offshore wind energy mean for Nova Scotia?

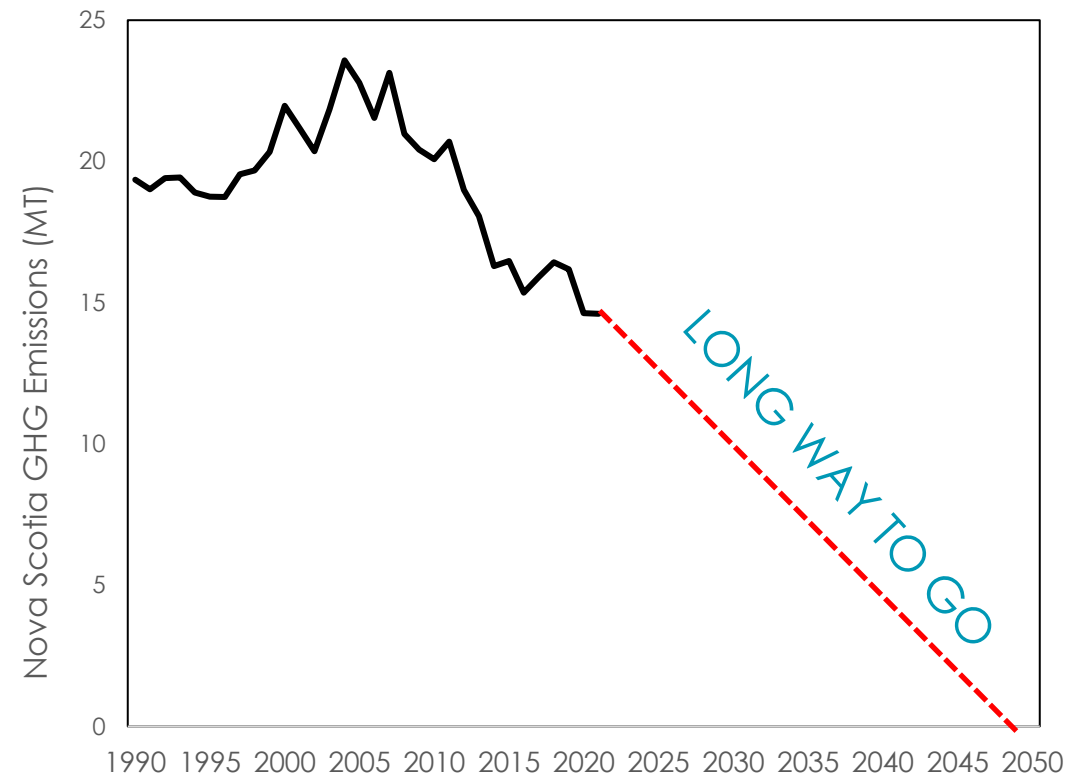
Presentation to the Town of Truro

Victoria Watson

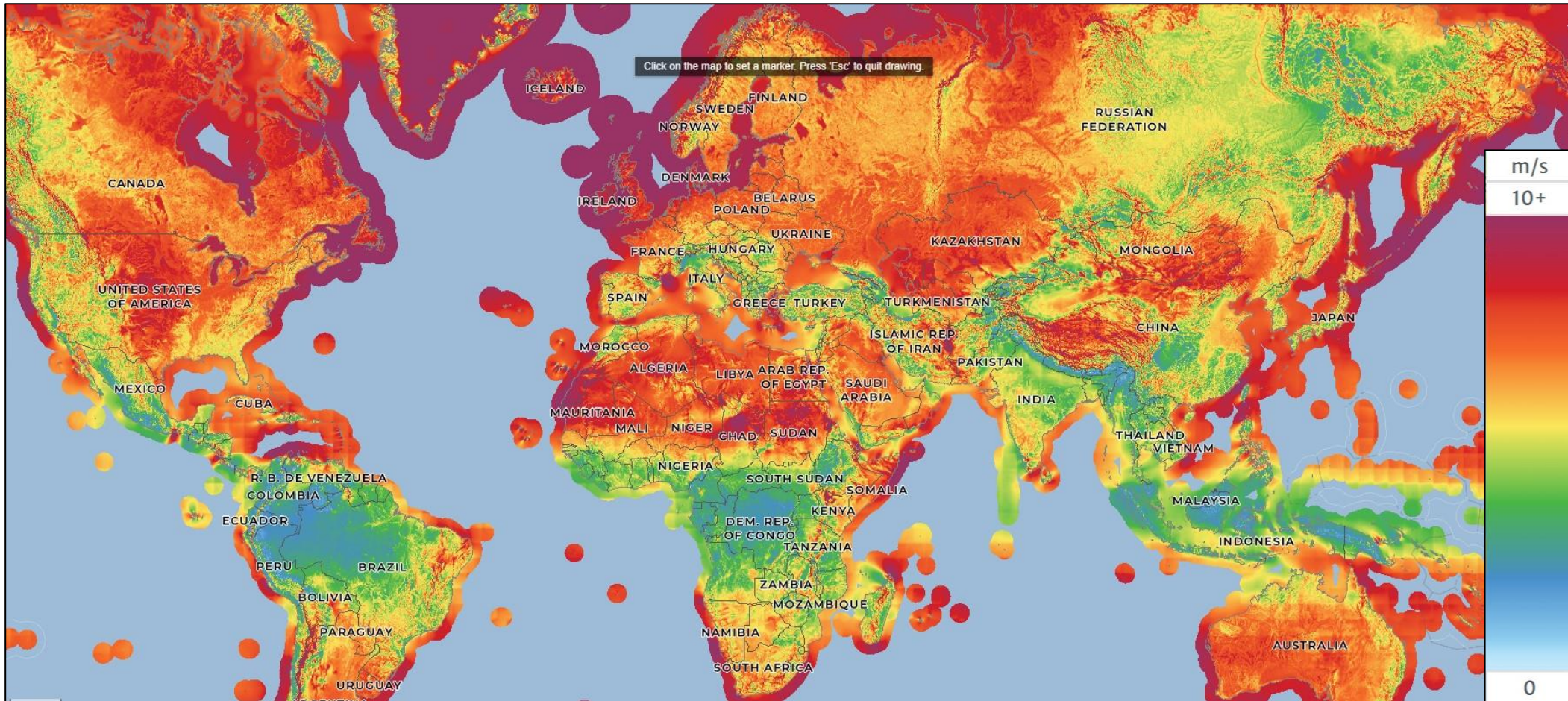
January 25, 2024

Nova Scotia's emissions need to be reduced.

- Canadian legislation requires **net-zero emissions by 2050** and phasing out coal-fired electricity by 2030.
- Nova Scotia legislation requires **80% renewable electricity by 2030**.
 - In 2022, 33% of the province's electricity came from renewables (solar, wind, hydro), and **67% came from fossil fuels** (coal, petroleum and natural gas).
 - Demand for electricity is expected to increase.

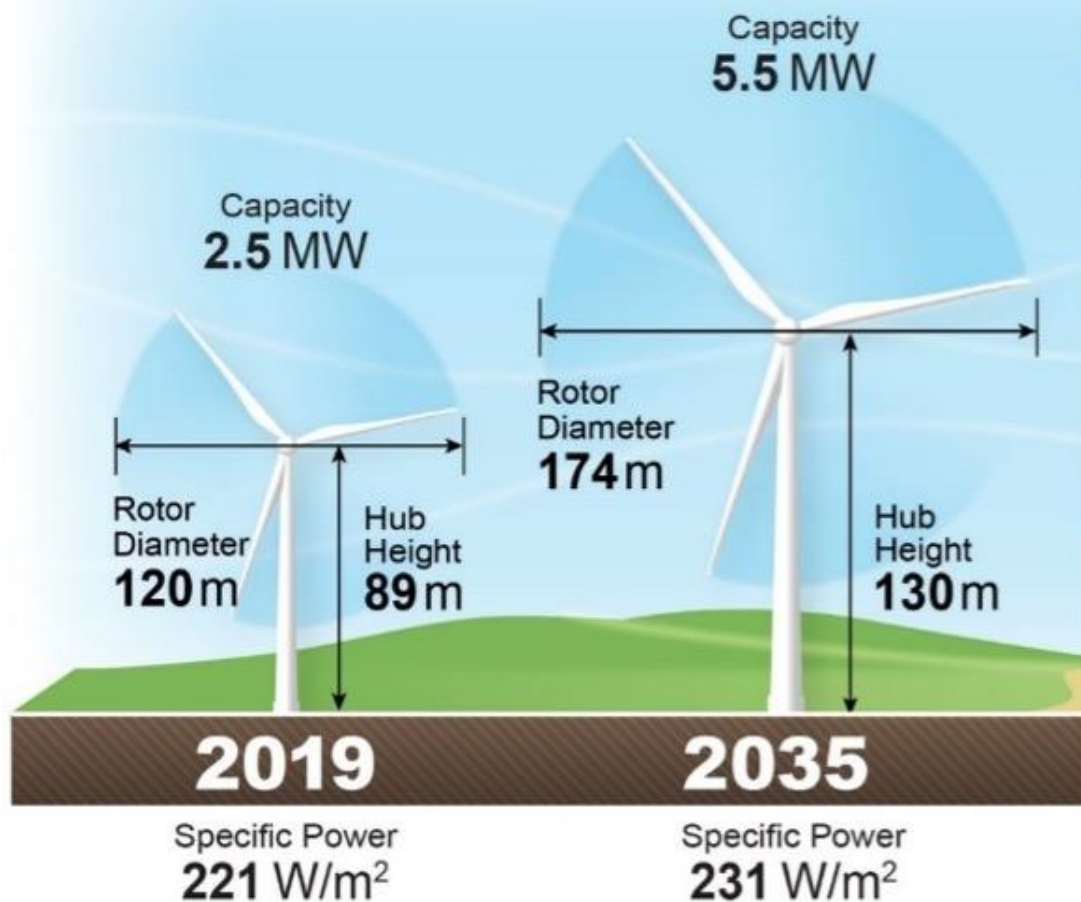


A global resource

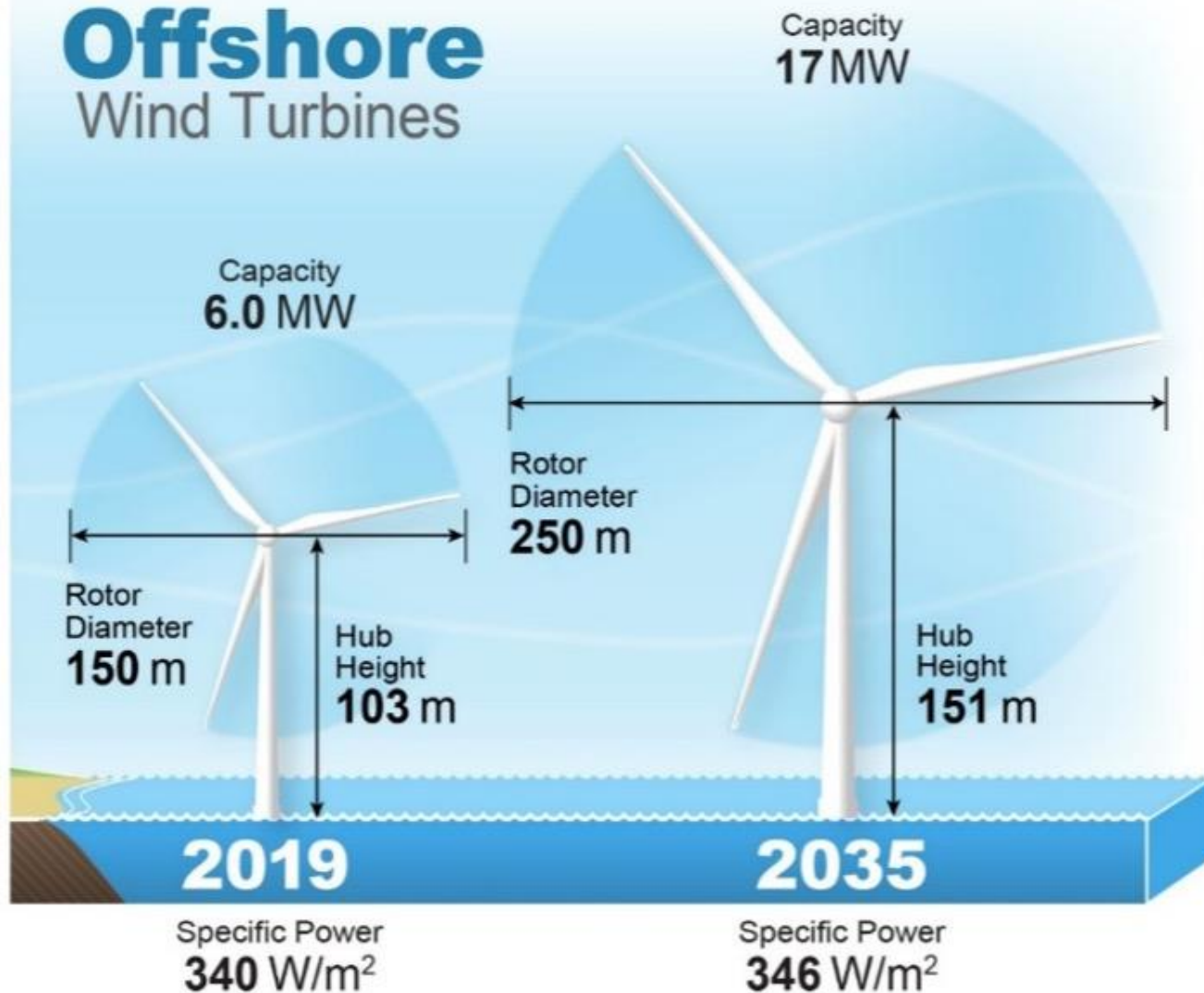


- Like other natural resources, offshore wind is not distributed evenly across the globe.

Onshore Wind Turbines

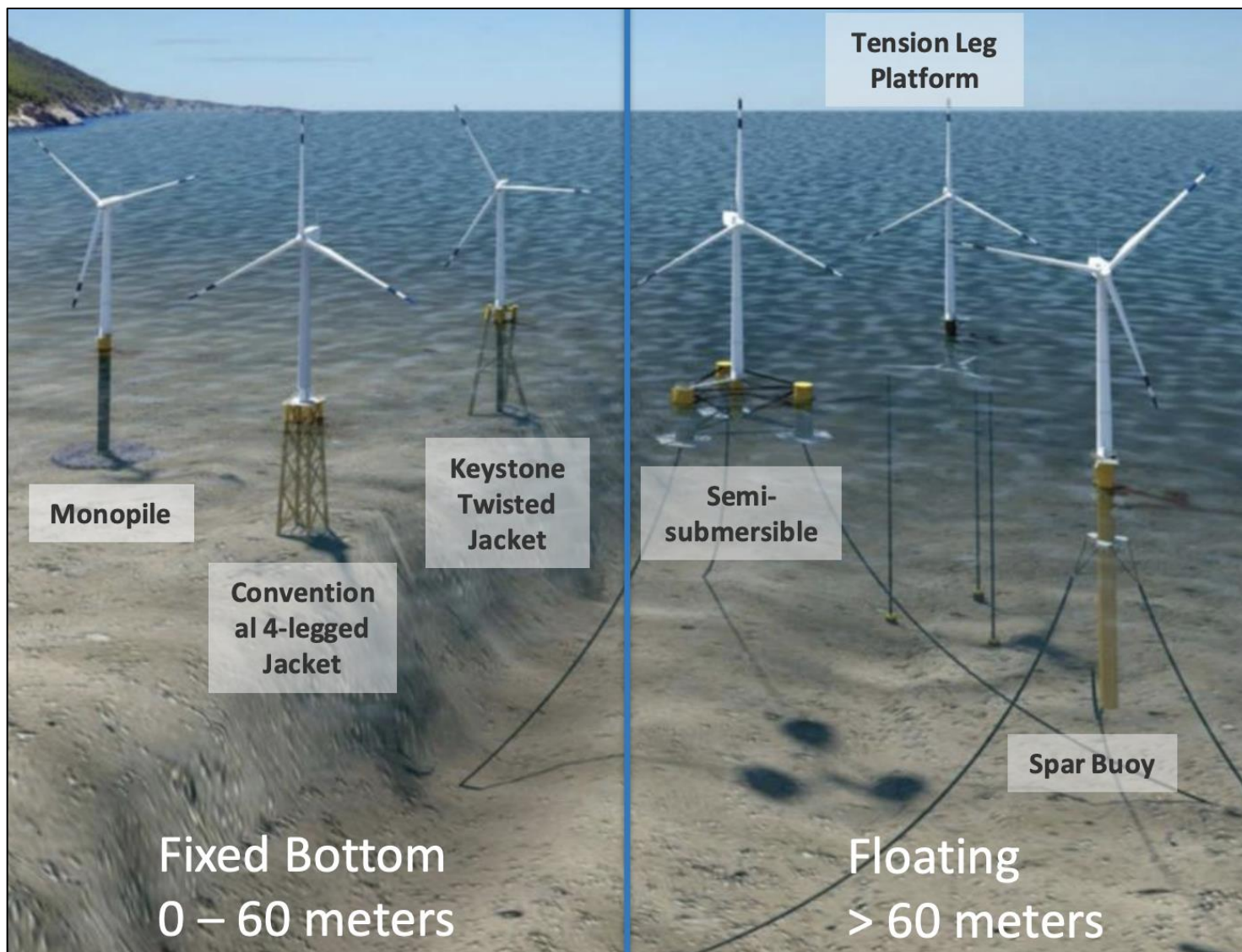


Offshore Wind Turbines



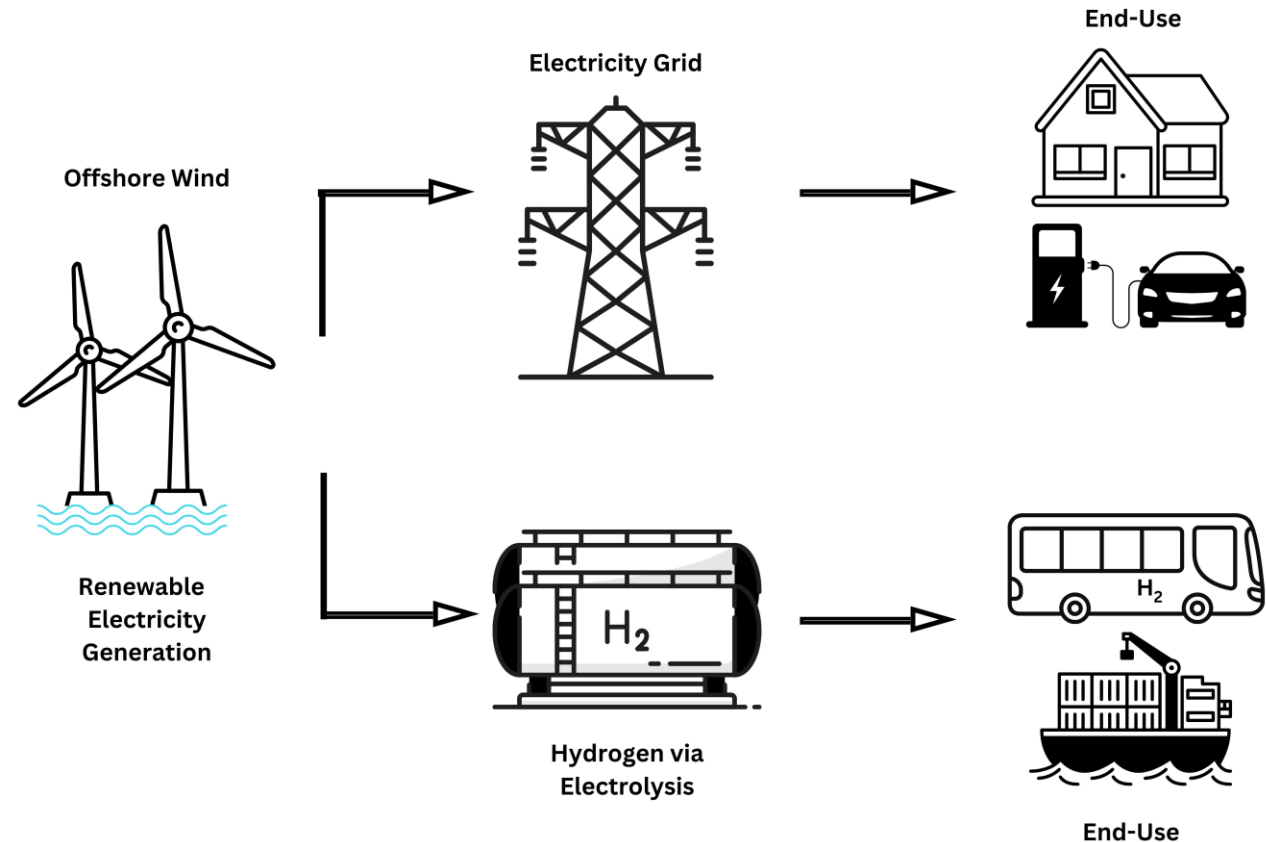
Turbine foundation types

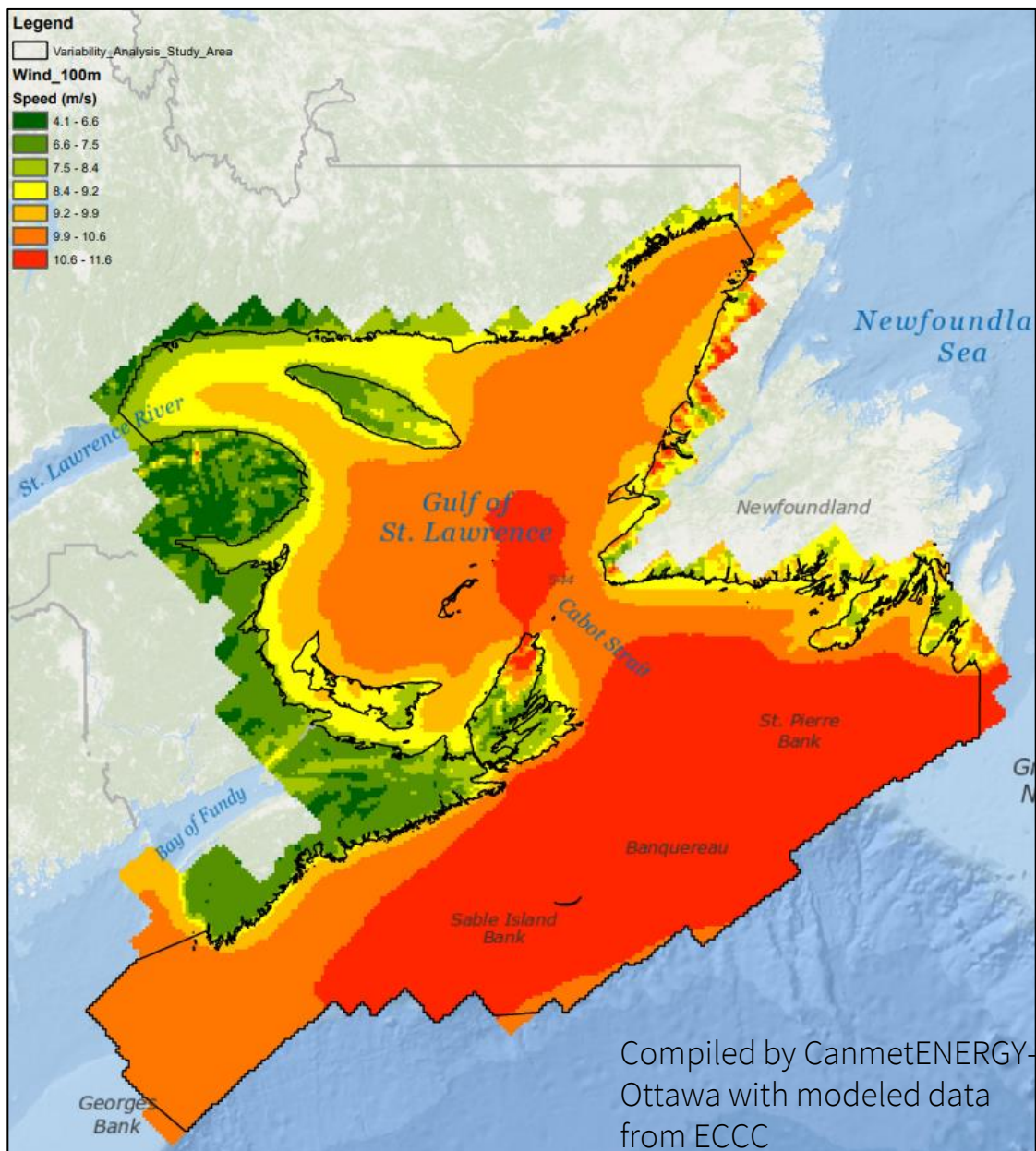
- There are two main types of offshore wind turbine foundations:
 - Fixed bottom
 - Floating
- Foundation types are dependent on depth and subsea geology.



Wind energy end use

- Wind energy can be used to meet electricity demand, or produce green fuels (e.g., hydrogen).
- This can be used domestically or exported.
- Potential paths to market:
 - Local/regional electricity supply
 - United States electricity market
 - Local/regional hydrogen supply
 - Hydrogen export (e.g., EU)





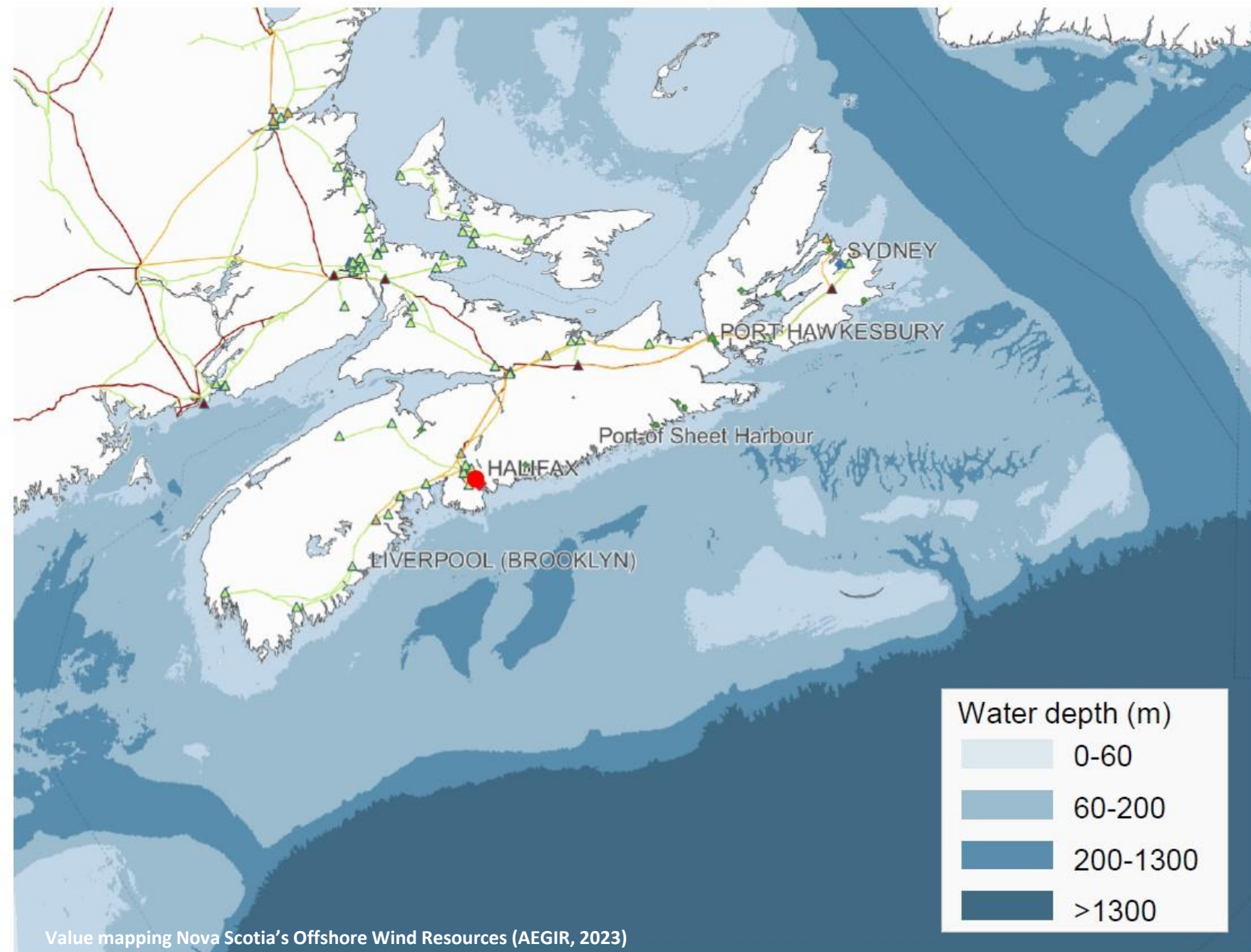
Offshore wind in Nova Scotia

- Atlantic Canada's OSW resource is exceptional.
- NS Government made commitment to offering lease agreements for up to 5GW of offshore wind by 2030.
 - Surpasses current need for electricity in NS.

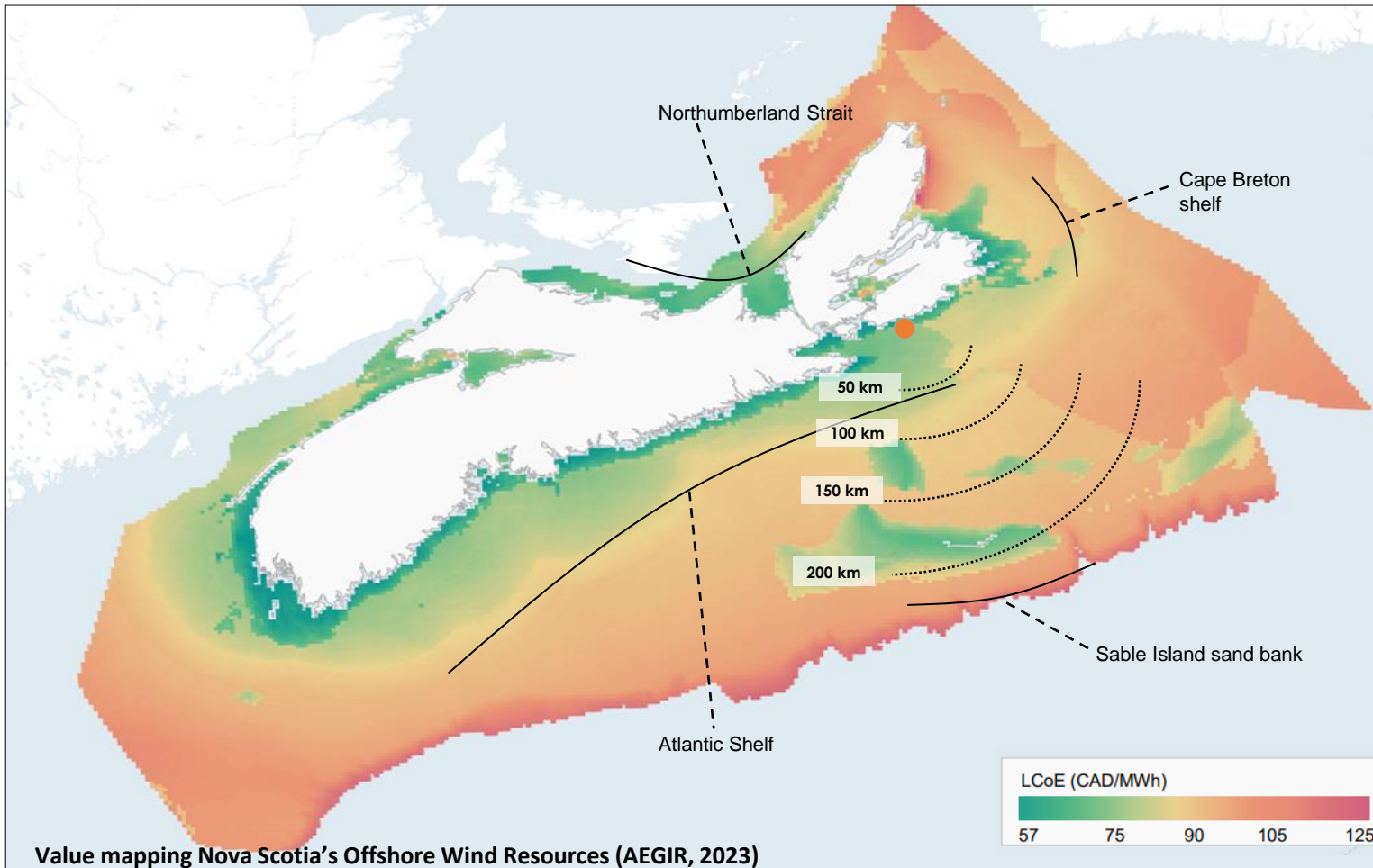


Water depth Nova Scotia

- Important for determining likely type of development
- <60m depth = good for fixed bottom
- >60m depth = good for floating



Mapping development



Green areas are likely to be most cost competitive based on:

- Average annual wind speed
- Water depth
- Distance to construction ports and grid connection

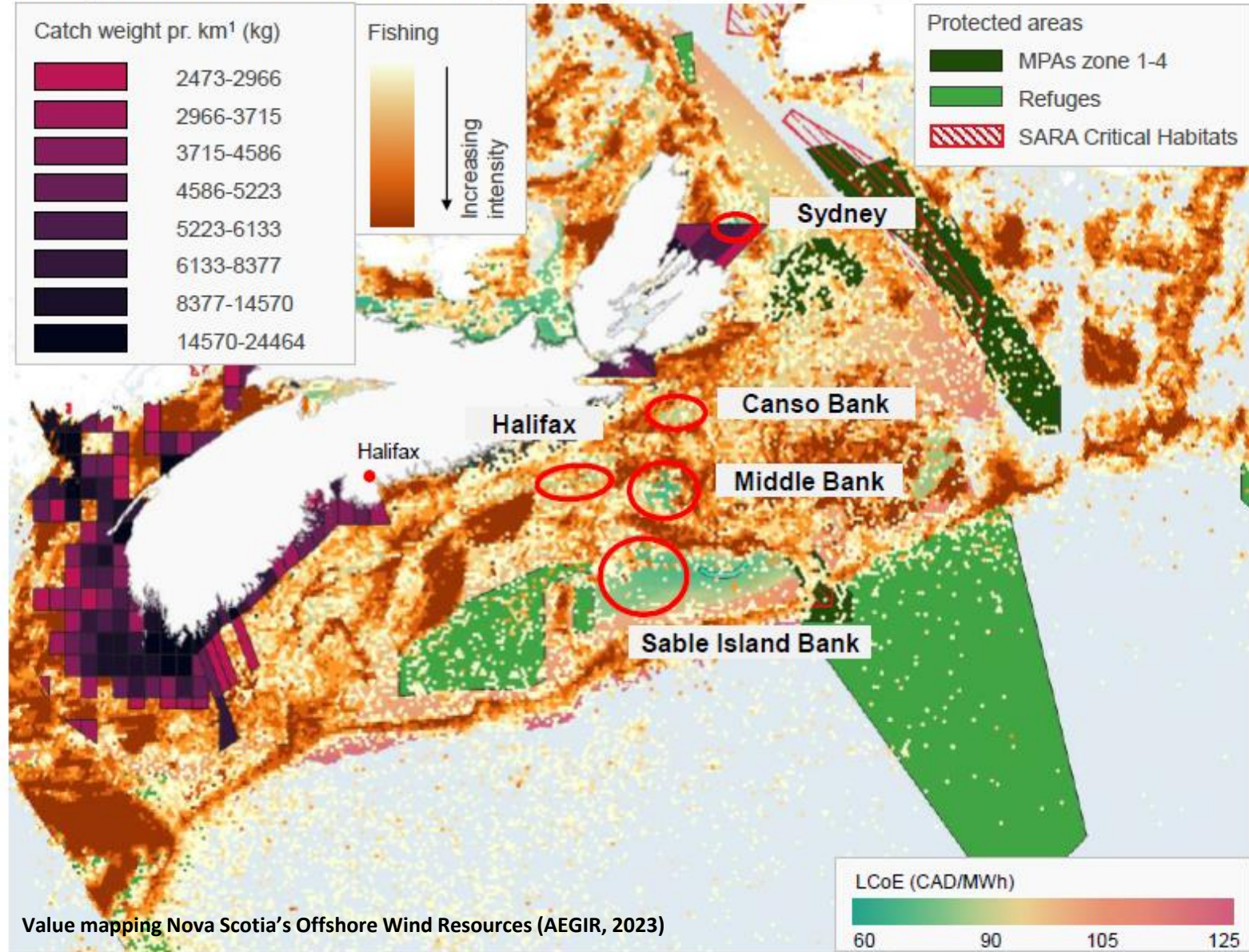


Considerations include:

Economic	Environmental	Social
Fisheries and Other Ocean Uses	Air Quality and Greenhouse Gases	Indigenous Communities, Activities, Interests, and Rights
Tax revenue	Marine Fish and Avifauna habitats (birds and bats)	Visual Aesthetics
Royalty revenue from leases	Marine mammals and sea turtles	Physical and cultural heritage
Job creation	Acoustic environment	Protected and Special Areas
Workforce development, skills realignment,	Increased vessel activity	Health
Transportation infrastructure development (ports, rail, road)	Reef effect from foundations, anchors, cables	Community benefit/wellbeing
Supply chain development/indirect economic impacts		



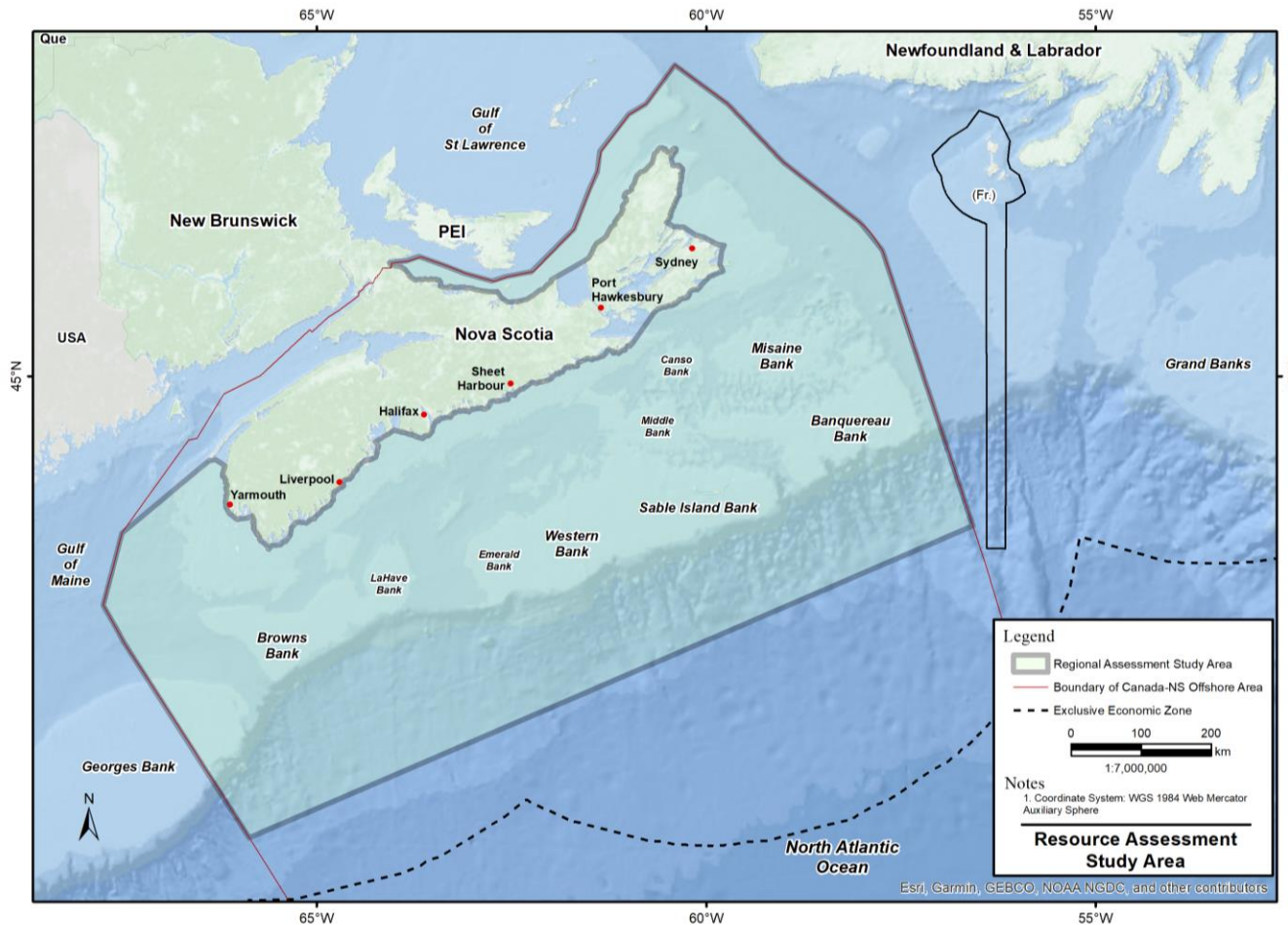
Heatmap overlaid with selected data on fishing, lobstering and protected areas¹



Value mapping Nova Scotia's Offshore Wind Resources (AEGIR, 2023)



Regional Assessment of Offshore Wind in Nova Scotia



Regional Assessment (RA) led by an independent Committee appointed by the Minister of Environment and Climate Change Canada.

- The RA Committee will recommend geographic area(s) to be considered for future development and provide recommendations to government for mitigation, monitoring and follow-up for future projects.

Contributions from citizens and representative groups are wanted.

- Open House sessions are happening now.
- Written submissions can be made via the RA email or the public comment tool on the Registry.

Completion is targeted for the fall of 2024.



Summary of Other Current Initiatives:

Offshore Renewable Energy Regulations (ORER)

- Federal-managed waters

NS Provincial Offshore Wind Roadmap

- Iterative

Canada-Nova Scotia Offshore Energy Regulator

- Transitioning from Offshore Oil and Gas

Marine Spatial Planning

- Department of Fisheries and Oceans - ongoing



Next steps

- This session is part of an ongoing discussion.
- Share your thoughts! We would love to hear your questions, concerns, and topics of interest for a future event in your community.
- Participate in ongoing discussions and encourage others.
 - Net Zero Atlantic workshops
 - Regional Assessment Information Sessions
 - New opportunities to engage (e.g., with industry, provincial government, etc.)

More Information: netzeroatlantic.ca/offshorewind

Contact us: offshorewind@netzeroatlantic.ca

Regional Assessment Registry: <https://www.iaac-aeic.gc.ca/050/evaluations/proj/83514>

Regional Assessment Email: OffshoreWind-EolienneExtracotiere@iaac-aeic.gc.ca

A decorative graphic in the bottom right corner consisting of several overlapping horizontal bars in shades of blue, green, and orange.

Truro Hemlock Woolly Adelgid Action Plan

TRURO URBAN FOREST COMMITTEE

JANUARY 20, 2024



Objectives

1

Prevent Hemlock Woolly Adelgid (HWA) damage to the towns valuable Eastern Hemlock forest

2

Be proactive to enable prompt response to infestation

3

Put resources in place to treat high priority stands of trees

Background



- ▶ Non-native insect without natural enemies
- ▶ Reproduces prolifically
 - Asexual reproduction (no males involved)
 - Two generations produced in single year
- ▶ Results in mortality in 3-15 years after introduction
- ▶ First found in North America in 1950 – Virginia
- ▶ Reached southwest Nova Scotia in 2017
- ▶ Reached Bedford and Windsor Nova Scotia in 2023
- ▶ Spreads by wind, birds, humans (wood, hitchhikers)
- ▶ Truro DNA traps – possible detection 2023



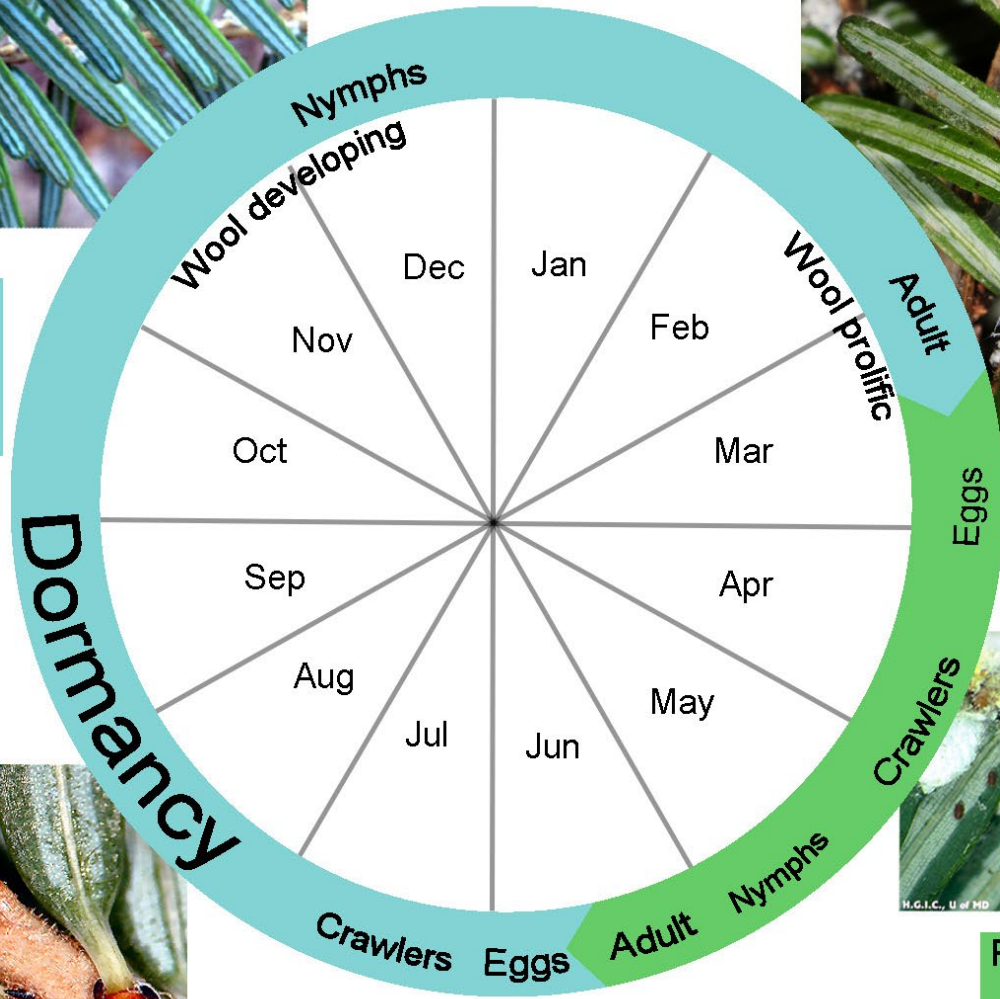
Sistens (winter) generation "to halt"



Adult Wool prolific



Progrediens (spring) generation "to proceed"



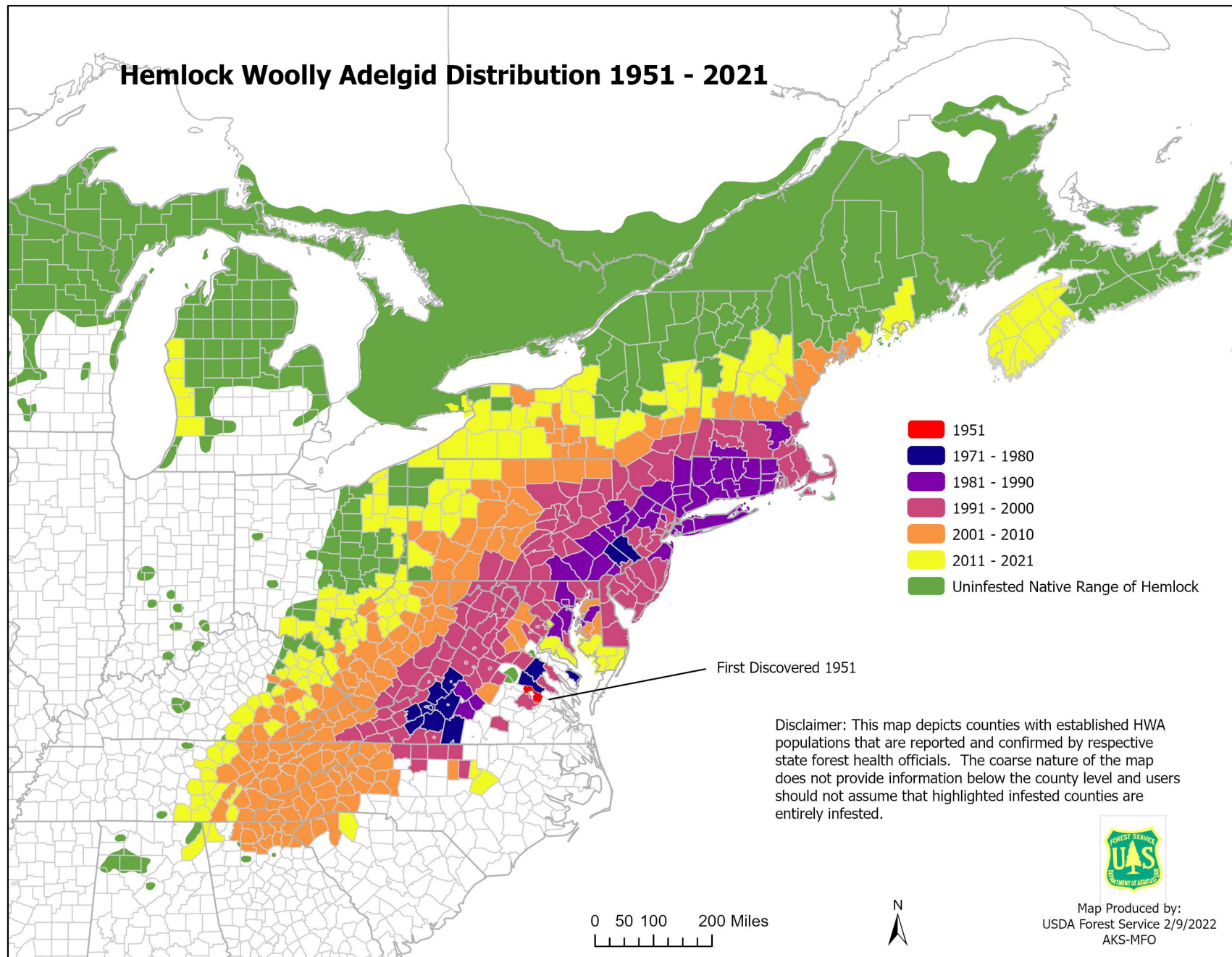
Hemlock Woolly Adelgid in Nova Scotia
Spring Haven, NS, May 2018



Exit full screen (f)



Hemlock Woolly Adelgid Distribution 1951 - 2021

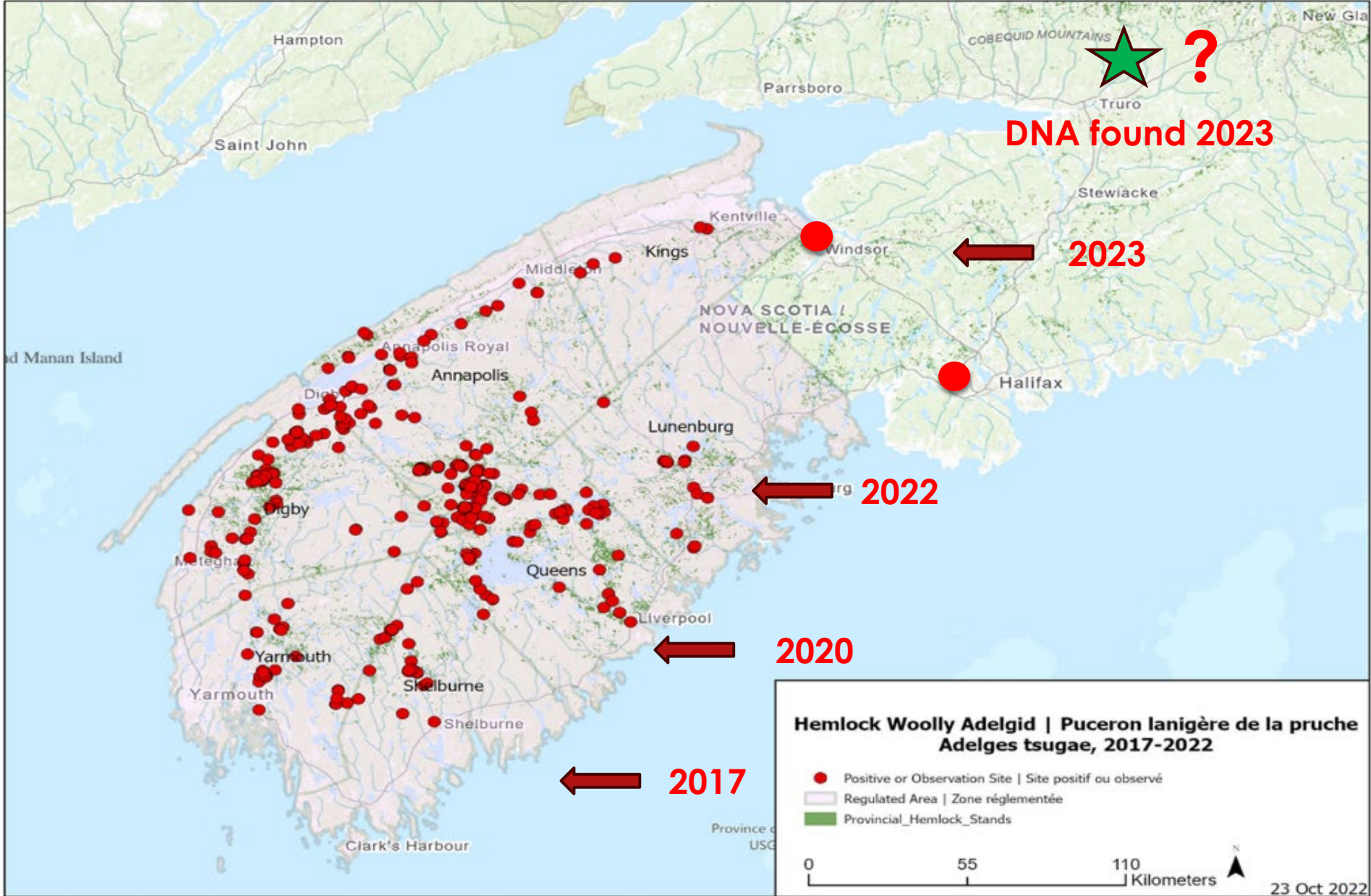


First Discovered 1951

Disclaimer: This map depicts counties with established HWA populations that are reported and confirmed by respective state forest health officials. The coarse nature of the map does not provide information below the county level and users should not assume that highlighted infested counties are entirely infested.



Map Produced by:
USDA Forest Service 2/9/2022
AKS-MFO



Impacts



- ▶ **Recreational/Social/Spiritual**
- ▶ **Economic**
- ▶ **Fire**
- ▶ **Biodiversity**
 - **Old Growth**
 - **Riparian**
 - **Ecosystems**
 - **Carbon sequestering**

Action Plan

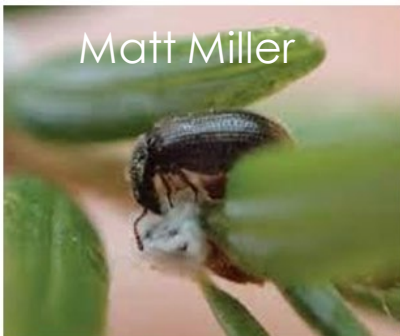
- **Action required in Action Plan**
- **Hemlock Inventory**
- **Prioritization of Stands for protection**
- **HWA Detection**
- **Treatment with Insecticide when HWA found**
- **Monitoring**



Xytect 2-F Basal Bark Application

Treatments

Biological Control



Laricobius beetle

- ▶ Pesticides
 - 3 products registered in Nova Scotia
 - Imidacloprid, Dinotefuran, Azadiractin
 - 2 application Methods
 - Tree Injection
 - Basal Treatment
- ▶ Species Adaption
 - Anticipate loss of hemlock, introduce planting of natural cohorts (e.g. Red Spruce)
 - Must protect seedling/saplings due to heavy deer population
- ▶ Bio-Controls
 - Introduction of beetles from BC – *Laricobius nigrinus*
 - Now being experimented with in Nova Scotia
 - Long time to build up populations

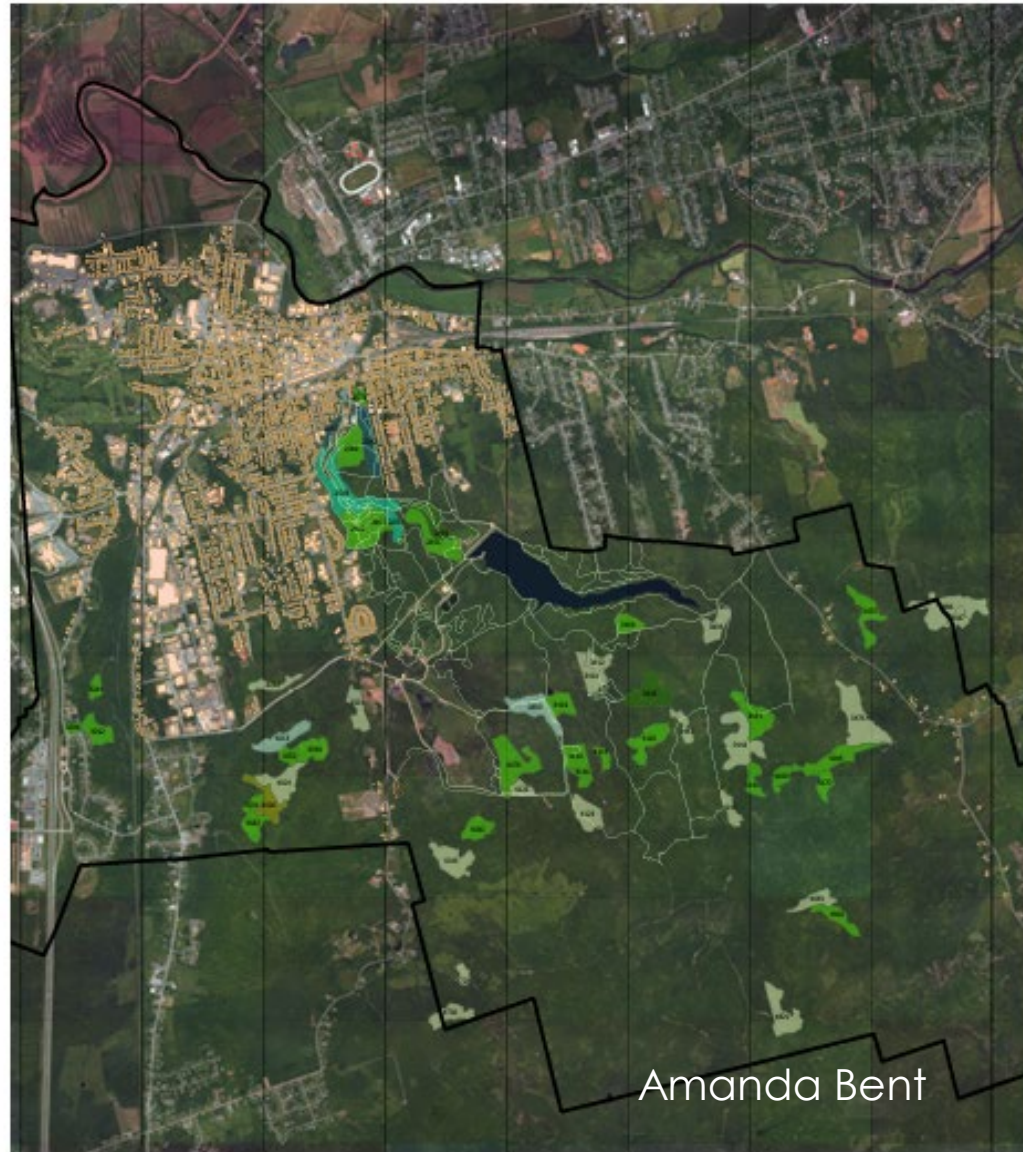
**Pesticides currently registered by Health Canada (PMRA) for control of Hemlock Woolly Adelgid in Nova Scotia
(Fully registered or currently registered under Emergency Use)**

Summary Table prepared by Dan Lavigne, Manager Risk Services, Nova Scotia Department of Natural Resources, Fleet and Forest Protection Division – Aug. 25, 2023

Product Name	Common Name	Classification of Pesticide	Mode of Action	Equipment used for application	Type of Application	Appl. Rate (AI per cm DBH)	Annual Limit	Cost of product ¹ (CDN\$)	Cost of product/cm DBH	Cost of product for 40 cm DBH tree	No. of years of protection	Product Uptake in tree
Xytect 2F	Imidacloprid	Commercial (Emerg. Use)	Systemic	Backpack sprayer	Basal bark application	1.16 mL	1.9 L/ha/yr. (1638 cm)	\$75 per L	\$0.087	\$3.48	5-7	6-9 months
Starkle 20SG	Dinotefuran	Commercial (Emerg. Use)	Systemic	Backpack sprayer	Basal bark application	3.52 mL	3025 g/ha/yr. (2545 cm)	\$81.60 per 1000g	\$0.097	\$3.88	1-2	3-4 weeks
IMA-jet 5%	Imidacloprid	Commercial	Systemic	EcoJect, CHEMJET	Tree injection	5% 1.6 mL	No Limit	5% \$215 per L	5% \$0.344	5% \$13.76	4-5	6-9 months
IMA-jet 10%	Imidacloprid	Commercial	Systemic	QUIK-jet AIR, CHEMJET	Tree injection	10% 0.8 mL	No Limit	10% \$428 per L	10% \$0.342	10% \$13.68	4-5	6-9 months
TreeAzin	Azadiractin	Commercial	Systemic	EcoJect, CHEMJET	Tree injection	3 mL	No Limit	\$600 per L	\$1.80	\$72.00	1-2	3 months

¹ **Please note:** Costs may vary.

<u>Product</u>	<u>Manufacturer/Supplier</u>	<u>Manufacturer Web Site</u>
Xytect 2F	Rainbow Ecoscience	https://www.rainbowecoscience.com/
Starkle 20SG	Belchim Crop Protection Canada	https://www.belchimcanada.com/index.html
IMA-jet	Arborjet Canada	https://arborjet.ca/
TreeAzin	Lallemand Plant Care	https://bioforest.ca/en/canada/product-details/treeazin-systemic-insecticide/



Amanda Bent



Legend



TRURO
Hemlock Stands



Preliminary Cost Estimate

- ▶ Treat all hemlock within Town boundaries
 - 55 stands, approximately 40,000 stems, 18 cm average Diameter at Breast Height (DBH)
 - Product Cost = \$60,000 (Xytect 2F)
 - Labour Cost = \$200,000 (400 days 2 man crew - \$480/day)
 - Total Cost = \$260,000
- ▶ Treat all hemlock within Victoria Park
 - 10 stands, approximately 10,000 stems, 29 cm average Dbh
 - Product Cost = \$13,000
 - Labour Cost = \$27,000
 - Total Cost = \$40,000

Implementation Recommendations

- ▶ Budget for Town funding.
 - Ability to carry forward to next FY
- ▶ Engage public on HWA plan
- ▶ Identify trained contractors
 - Pesticide application license
 - Cruising
 - Drones
- ▶ Alternative resource identification
 - Provincial Dept of Environment
 - Federal Government
 - Volunteer
 - Legacy Fund
 - Internal, Equipment cost, Backpack sprayer system, Injection system, Product Cost, training