

Incorporating Species at Risk in Wetland Restoration



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Does it Move??

SPATIAL CONSTRAINTS

1. Fauna moves
2. Flora moves.....slowly

Does Anyone Know What Time It Is??

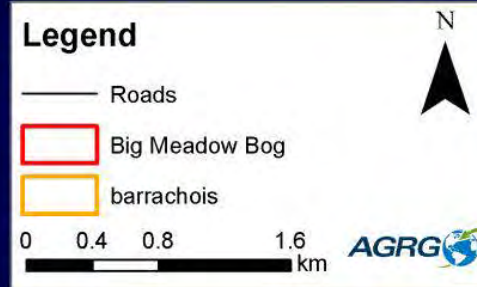
TEMPORAL CONSTRAINTS

- Life cycle may drive when a species is present.

Turtles and Flowers



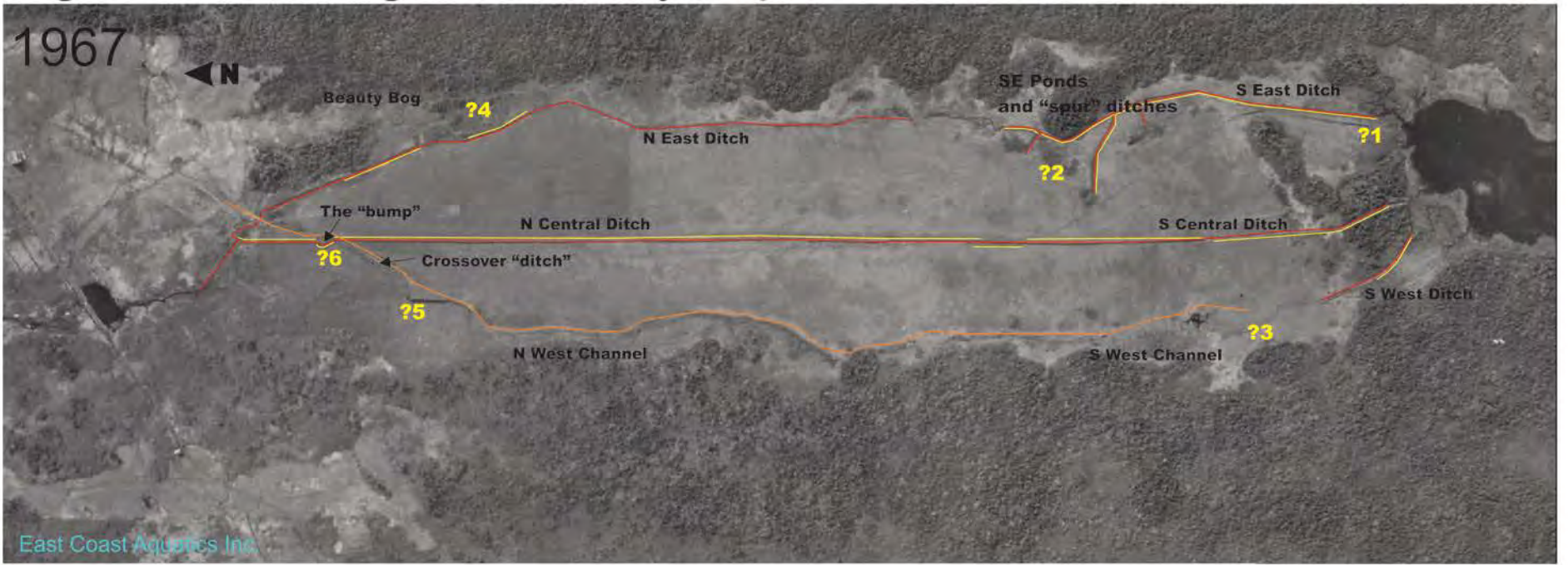
Big Meadow Bog Brier Island



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



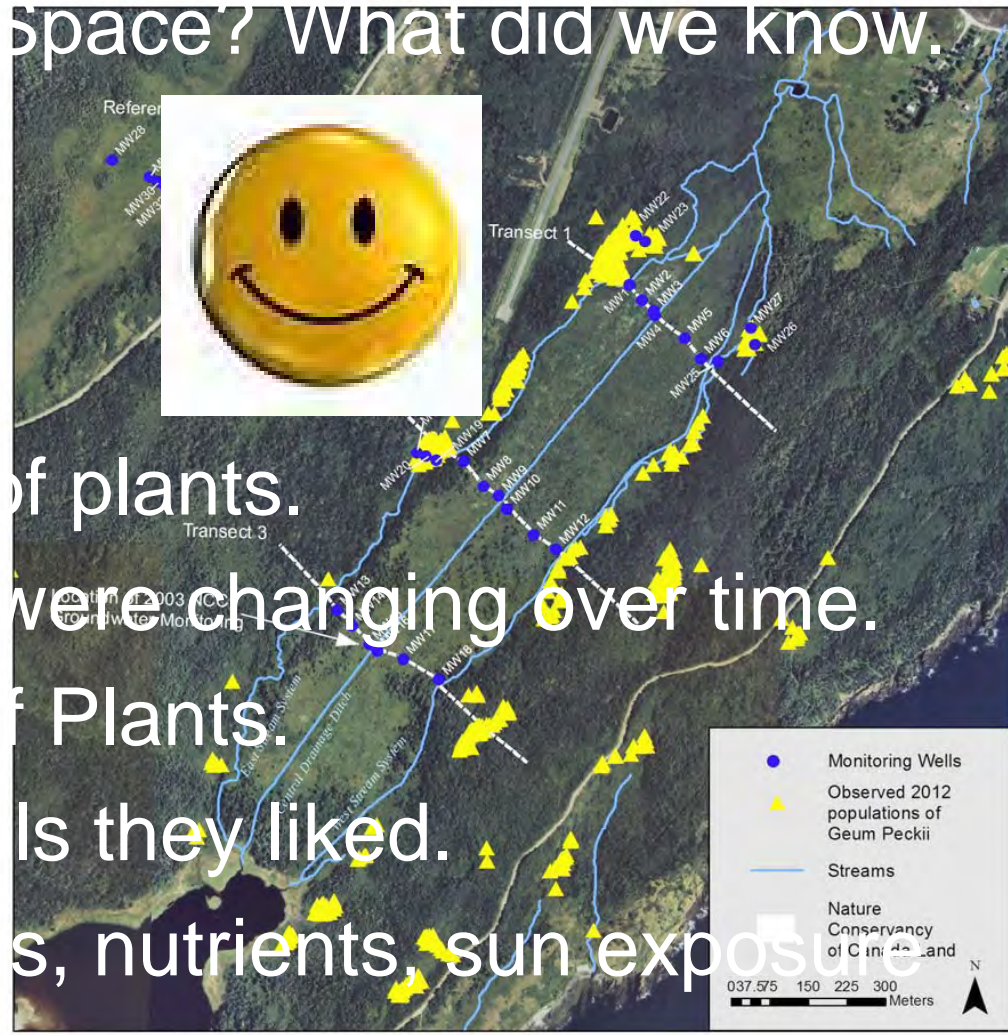
Big Meadow Bog - Summary Impacts



E. Mountain Avens - BMB

Time? Space? What did we know.

Big



s of plants.

were changing over time.

f Plants.

Is they liked.

s, nutrients, sun exposure



basalt



Hydrology Restoration - Trials

Main Objectives of trial ditch blocking:

Raise the water table level within 10-15cm of the surface.

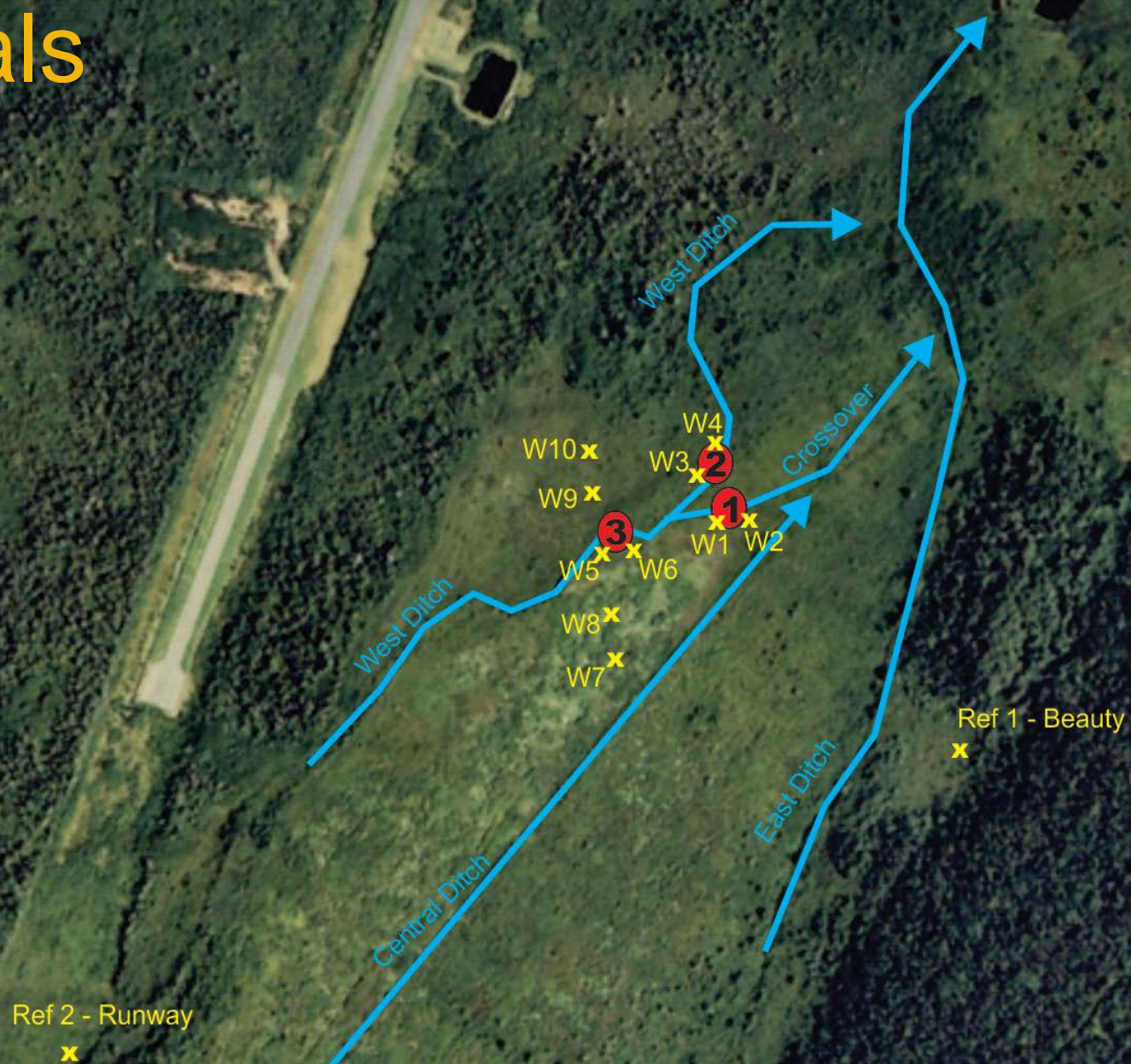
Try to quantify spatially how much area a ditch block influences.

Try to determine how quickly the response to a blockage occurs.

Trials



Trials





Big Meadow Bog Summary

A globally endangered species that we know a lot about at the site

A species that does not readily move.

A species that is limited spatially in its use of the available wetland habitat.

Determine species specific restoration targets,

Ensure targets are achievable (trials),

Ensure restoration is reversible as a mitigation strategy

Wood Turtle at Sackville

Time and Space? What did we know.

NOTHING



Some suggestion they might exist within the watershed.

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PNS NAT. RESOURCES

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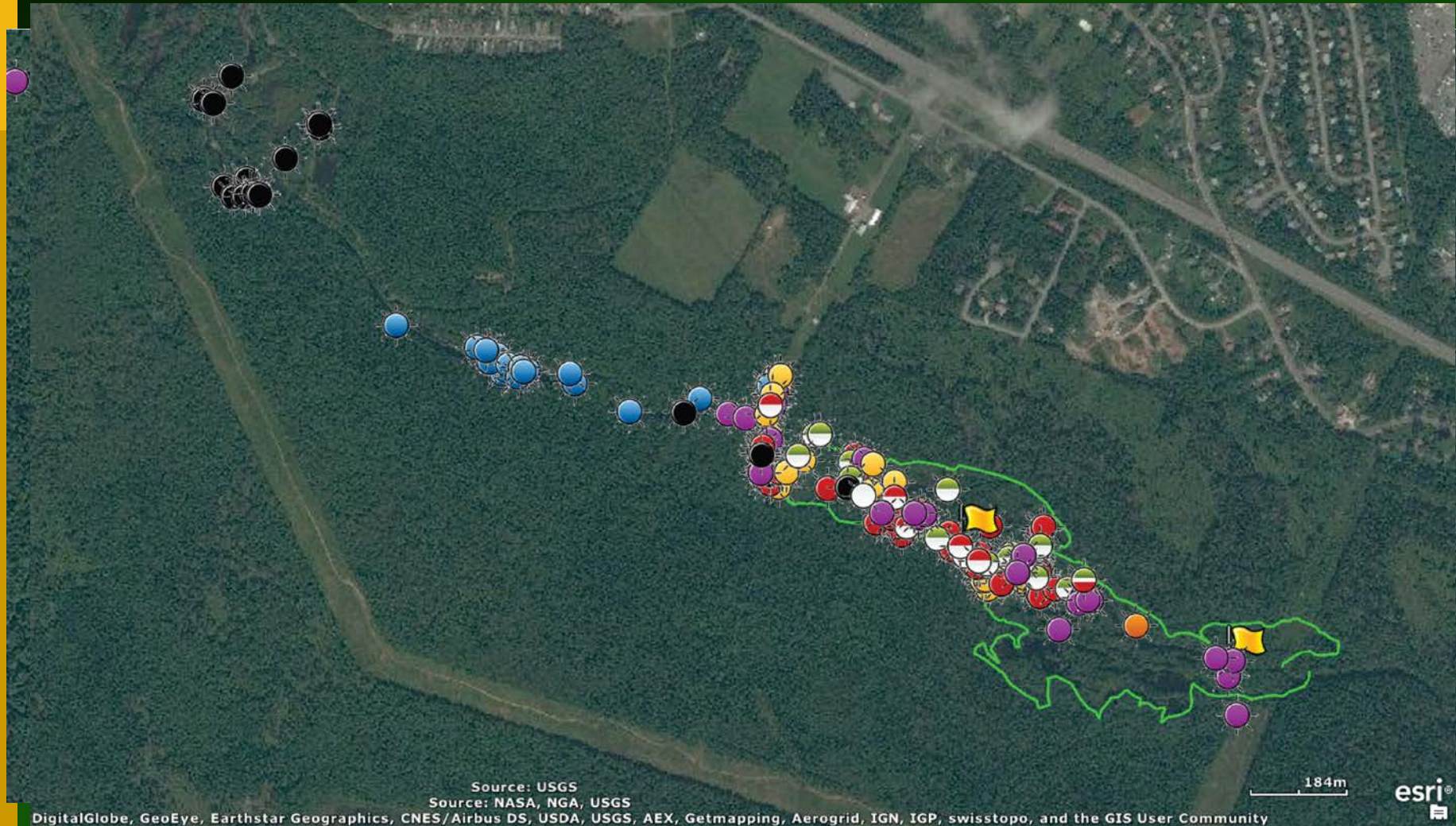
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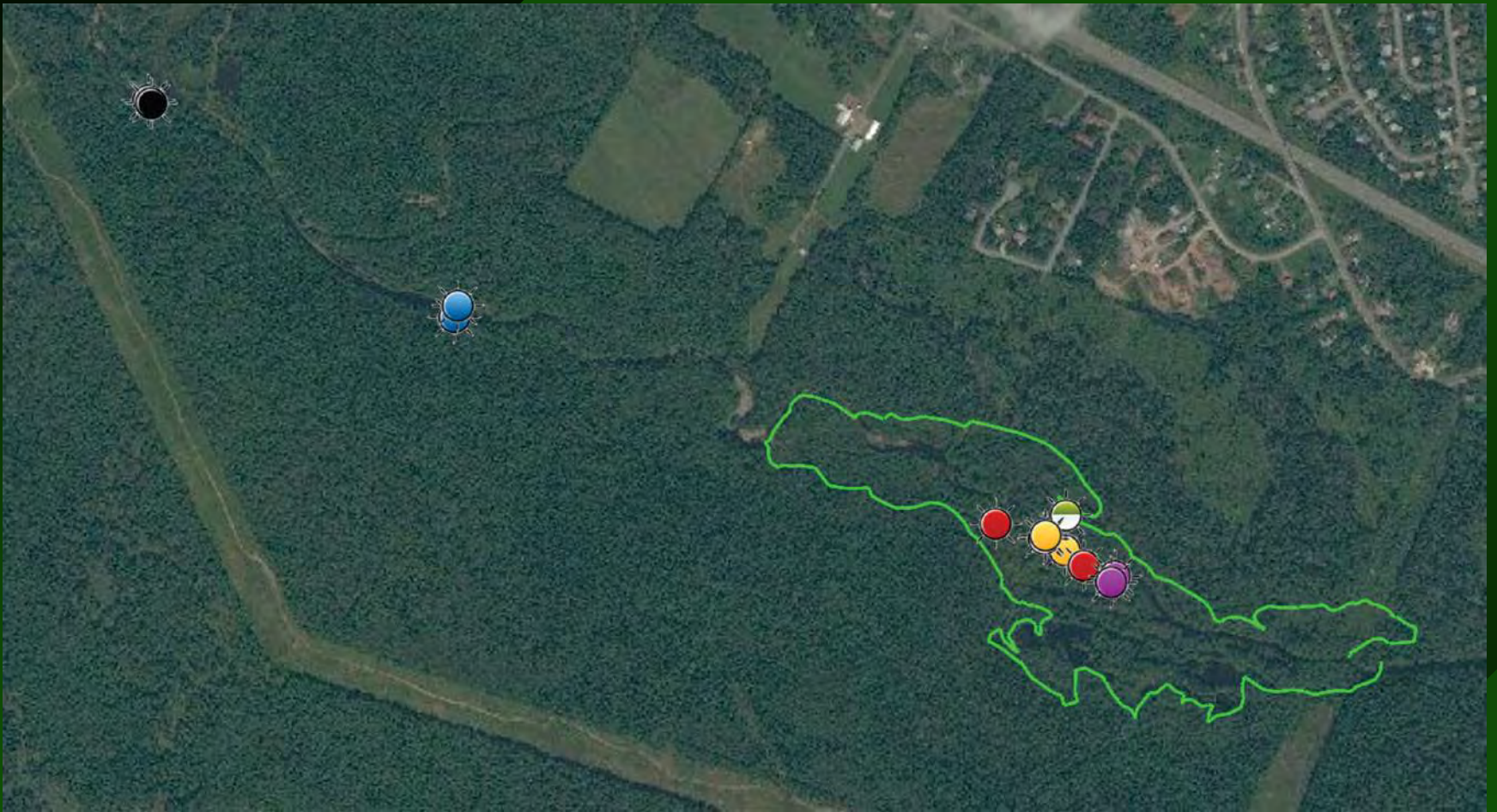


At first glance!?!



Where were females during nesting period?





Where were turtles during the overwinter period?



Sackville Wetland - Summary

A Provincially threatened species that we know little about at the site.

A species that moves around a lot.

A species that uses various available wetland habitat for life cycle needs.

Identify important life cycle habitats.

Decide if you will protect, enhance key habitats.

Ensure restoration timing considers species movements

When considering species at risk within a restoration project,

- **Think temporally**
- **Think spatially**

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