



Why Did the Salamander Cross the Road?

Presented by
Lesley Matich, Conservation Halton
Ecosystem Recovery Forum
November 5, 2013





Overview

- Jefferson Salamander
- Policy Context
- Monitoring Aspect
- Planning Studies
- 2011 and 2012 Road Closures
- Lessons Learned
- Media Frenzy
- 2013 Update

Jefferson Salamander (JESA)

- Adult salamanders migrate to their breeding ponds in early spring during wet, rainy nights
- Young leave the ponds by mid-summer and enter the surrounding upland forest
- Return to the same pond in which they were hatched each year to breed



Conservation Considerations

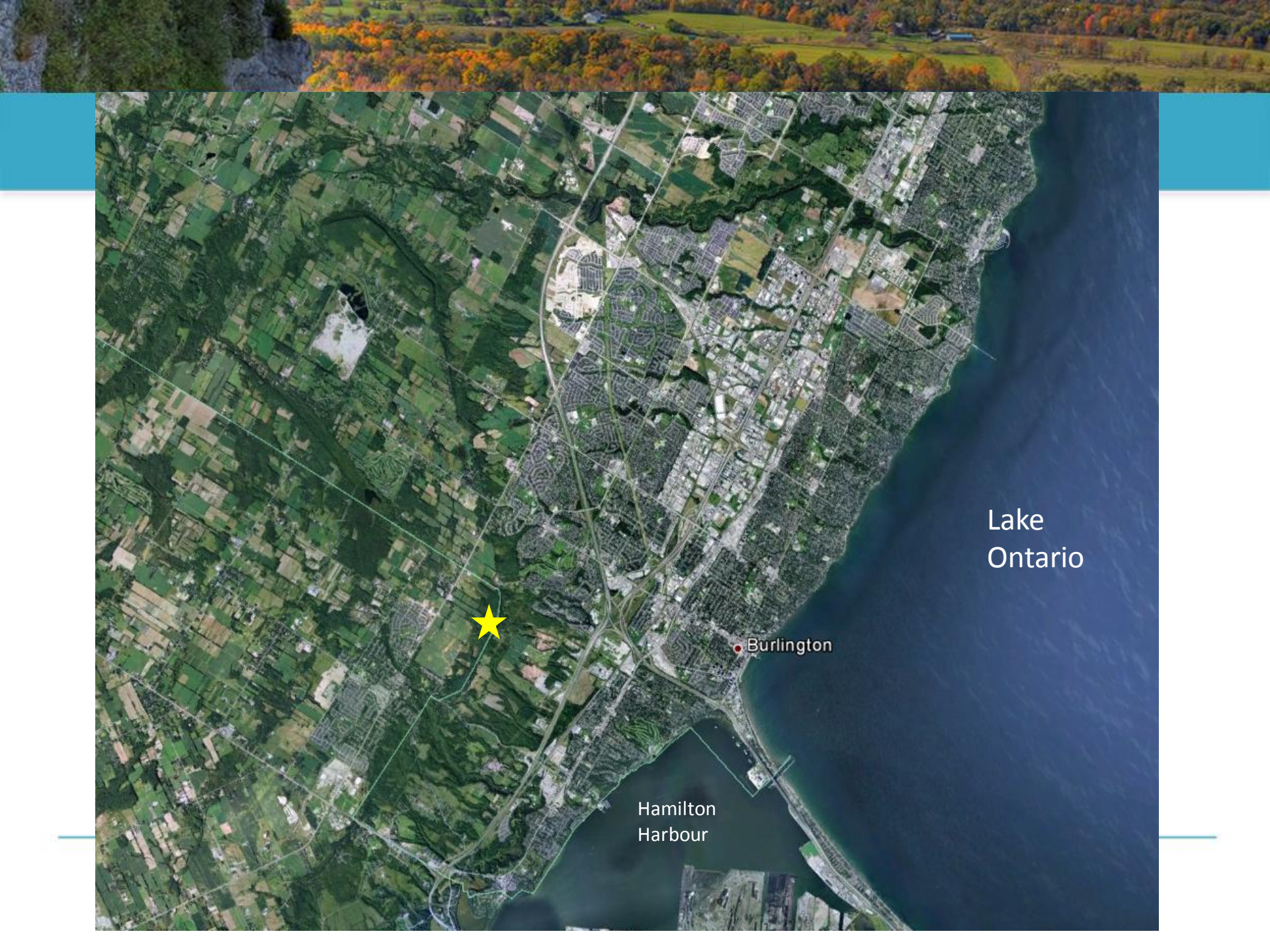


- JESA spend most of their lives underground
- Species ID requires genetic analysis
- Live up to 30 years



Policy Context

- ‘Endangered’ in Ontario and Canada
- **SARA Schedule 1**- protected on federal lands
- ***Endangered Species Act***
 - prohibited to kill, capture, possess, sell or trade
 - habitat protected through regulation
 - Recovery Strategy and Government Response Statement have been developed
- **Provincial Policy Statement**- protects significant habitat of endangered species
 - **NEP**
 - **Greenbelt Plan**
 - ***Fish and Wildlife Conservation Act***- “Specially Protected Amphibian”

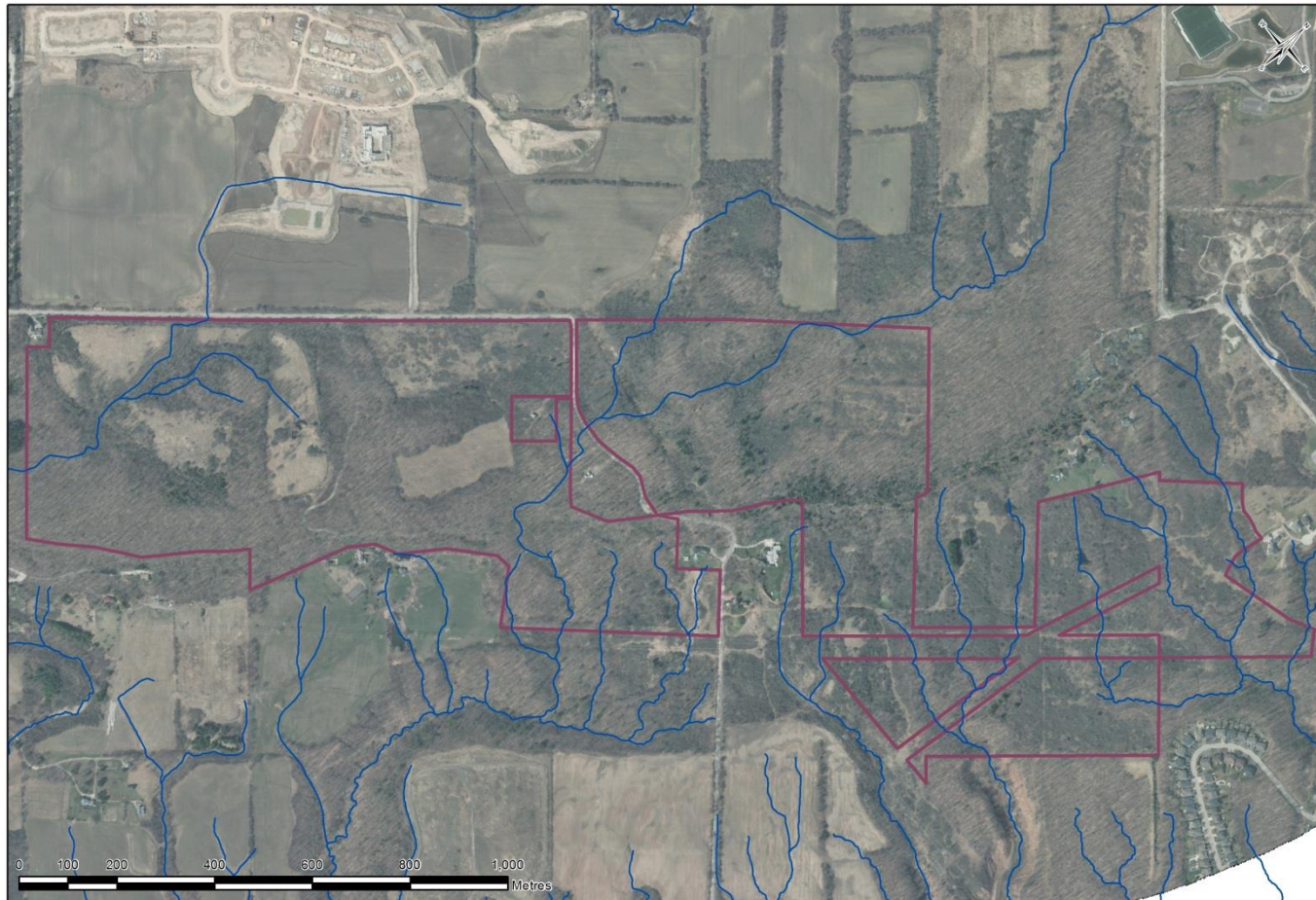


Lake
Ontario

Burlington

Hamilton
Harbour

Waterdown Woods RMA



— Watercourse □ Waterdown Woods RMA

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A scenic landscape photograph showing rolling hills covered in trees with vibrant autumn foliage in shades of orange, yellow, and red. The sky is clear and blue. The image is partially obscured by a blue banner at the bottom.

Monitoring

- Waterdown Woods monitoring program has been in place for approximately 8 years
- JESA have been monitored at Waterdown Woods as part of this work
- There are six ponds confirmed as breeding pools on public lands, with the potential for more on the adjacent private lands
- Joint research study with the MNR to define the home range of individuals was completed



Monitoring Cont.

- Extensive hydrological studies have been undertaken as part of the adjacent development
- More complete understanding of the interconnectivity of the water in the area
- Karst plays a large role in this



Planning Studies

- High development pressure to the north of this area (Waterdown)
- 2006 South Waterdown Subwatershed Study included a road mortality survey which identified an impact on JESA



Environmental Assessment

- Waterdown Road - Aldershot Transportation Master Plan EA process
 - King Rd Technical Feasibility Study (2009)
 - Recommended minor road improvements
- CH recommended closure to mitigate the impact; temporary closure was selected

King Road





2011 Road Closure

- Voluntary closure in place
 - signs asking drivers to not use the road installed
 - notices in the local newspapers were issued
 - no physical barricades
- City requested CH undertake road mortality surveys to confirm impact

2011 Road Mortality Surveys



- April 4th to 20th
- Surveys completed under appropriate weather conditions
- Location of amphibian or reptile road mortality recorded
- If it appeared to be JESA, a sample was taken
- Dr. Jim Bogart (U of G) analyzed samples to confirm species



This is what
roadkill looks
like...





Survey Results

- A number of samples confirmed as Jefferson Salamander complex
- Also recorded impacts on Spotted Salamanders, frogs, toads and snakes
- Voluntary closure was not effective
- Study limitations
 - health and safety
 - snowplowing



Moving Forward to 2012

- City staff agree with CH's finding that the voluntary closure was ineffective
- Feb. 8th: Proposal put to the Community Services Committee, approved
- Feb. 21st: Unanimous Council approval for temporary closure, using physical barricades to prevent use of the road
- CH repeated roadkill surveys

And it did close!

March
8th-29th,
2012



2012 Was a Learning Year...

A-Frame barricades were not enough of a deterrent



We tried two concrete barricades...



...and then three, and then four





2012 Results

- Even with the early spring, the City was able to move quickly and **no mortalities** were recorded during the surveys
- We learned that four concrete barricades are needed to ensure the road isn't used
- Public's reaction was very positive



RICK GOLDRING
MAYOR OF BURLINGTON



these endangered salamanders is too
*A three-week closure is a small price

Jefferson salamander migration for breeding sees road closed in Burlington

Articles Photos (2) 2012/03/12 17:55:00 Email Print



SAVING SALAMANDERS



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Salamander Detour Set Up On Burlington Road



First Posted: 03/ 9/2012 7:40 pm Updated: 03/12/2012 6:38 am

React



A salamander detour has been set up in Burlington to create safe passage for the endangered amphibians, which otherwise risk being squashed by cars and foot traffic.

Only about 100 Jefferson salamanders — or “Jeffie” as they’re commonly known — are still living



David Suzuki shared a link. 14 March

Great news for : endangered am

Go back to regular view Back to macleans.ca

MACLEAN'S

We hope you enjoy this clean reading mode.

Stop! Mating Salamanders ahead

The Jefferson Salamander is so rare that Burlington, Ont. has stopped traffic for it

by Alex Ballingall on Thursday, March 22, 2012 1:53am -



Barry Gray/The Hamilton Spectator

Like · Comment · S

1,222 people li

View all 64 com

Write a comment..

The Jefferson Salamander is so rare that a 100-member colony in Burlington, Ont., is one of the few left in the province. The dark-coloured creatures have lost much of their habitat to urban development, but come mating season a more pressing concern arises—to get to their breeding ponds they must cross a road that stretches up the Niagara Escarpment, dodging cars in the process. Each year many don't make it. So for three weeks this month, by order of the city, the only traffic permitted to use a span of King Road will be the stranded amphibians. “These guys have



Positive Press

- The media attention to the closure grew to include:
 - The Hamilton Spectator
 - The Bay Area Observer
 - InsideHalton.com
 - KX94.7 Hot New Country Hamilton
 - The Toronto Star
 - Global News Toronto (TV)
 - The Huffington Post
 - CBC News (TV)
 - CBC Radio – Here and Now (twice)
 - CBC Radio – As it Happens
 - Macleans magazine
- David Suzuki posted on Facebook about the closure

2013 Update

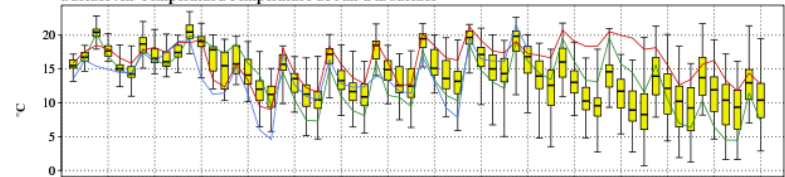
- Spring is messy, and forecasting is complicated!
- Closure March 18th-April 8th, plus April 9th-15th
- Observations of egg/larval development confirmed dates
- King Road Improvement EA initiated, fall 2013
 - Study in its early stage at this time

Ensemble and Deterministic Forecasts issued 4 October 2013 00 UTC
Prévision d'ensemble et déterministe émises le 4 Octobre 2013 00 UTC
for/pour

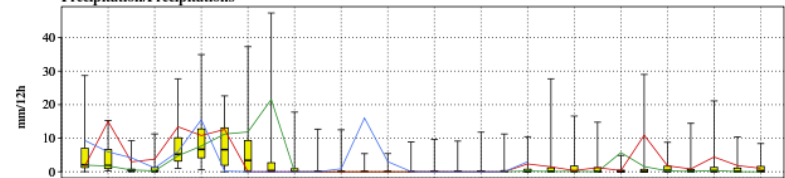
NAEFS / SPENA

HAMILTON (YHM) 43.17 N 79.92 W/O

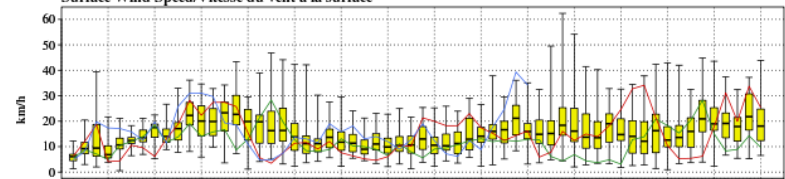
Surface Air Temperature/Température de l'air à la surface



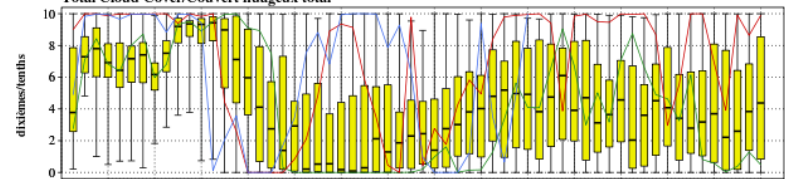
Precipitation/Précipitations



Surface Wind Speed/Vitesse du vent à la surface



Total Cloud Cover/Couvert nuageux total



max
75%
median/médiane
25%
min

October/Octobre 2013

— Global Model / Modèle global CMC
— Control Member / Membre contrôlé CMC
— Control Member / Membre contrôlé NCEP

Thank you to CH and Burlington
Staff, Burlington Council!