

# Cedar Point Community Liaison Committee Meeting #4

March 22, 2016

6:30-8:30 pm  
Forest Legion  
58 Albert St., Forest, ON

**SUNCOR**

## AGENDA

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- Welcome: agenda, goals and commitments
- Introductions
- Safety moment
- Follow-up from last meeting
- Post-Construction Wildlife Monitoring
  - Presentation: Kristen Rodrigues, Community Member
  - Presentation: NSRI
- Sound Testing
  - Presentation: Aercoustics
- Health and Safety Update
  - How to contact Cedar Point
- Next meeting



# INTRODUCTIONS

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## **CLC Members**

- Tomas Burget
- Cynthia Cook
- John Couwenberg
- Sandra deJong
- Monica Douglas
- Jocelyn Kelln
- Joanne Moore
- Ed Vanderaa
- Joseph Zanyk

## **Natural Resources Solutions Inc. (NRSI)**

- Charlotte Teat-Terrestrial and Wetland Biologist

## **Aercoustics**

- Payam Ashtiani – Acoustician

## **Suncor**

- Kirsten Hudak- Stakeholder and Aboriginal Relations
- Jocelyn Kelln- Stakeholder and Aboriginal Relations
- Chris Scott- Project development
- Jason Weir- Operations Supervisor

## **NextEra Energy Canada**

- Dennis Desloges- Operations Lead
- Derek Dudek- REA Compliance

## **Facilitator**

- Curt Hammond- Pearl Street Communications

## SAFETY MOMENT

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### Highway Safety

#### Make sure everyone wears a seatbelt

- All Ontario motor vehicle drivers and passengers must wear a seatbelt that is:
  - properly adjusted
  - securely fastened

#### Make sure everyone wears a seatbelt

Stay within the maximum speed limit posted on signs along all roads. As a general rule, you will be safer if you drive at the same speed as traffic around you, without going over the speed limit.

- Always drive at a speed that will let you stop safely, whether roads are wet or dry.
- Where there are no posted speed limit signs, do not drive faster than:
  - 50 km/hour in cities, towns, villages and built-up areas
  - 80 km/hour in any other area

## CLC UPDATE

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### Purpose

The Cedar Point Wind Power Project Community Liaison Committee (CLC) is a forum for the exchange of information between Suncor and representatives from the project community.

The CLC will focus on issues and communications related to the construction, installation, use, operation, maintenance and retirement of the Cedar Point Wind Power Project.

All CLC documentation can be reviewed online at [www.suncor.com/cedarpointwind](http://www.suncor.com/cedarpointwind) including minutes from these meetings and any other working sessions.

## FOLLOW-UP FROM CLC MEETING #3

### Action Items

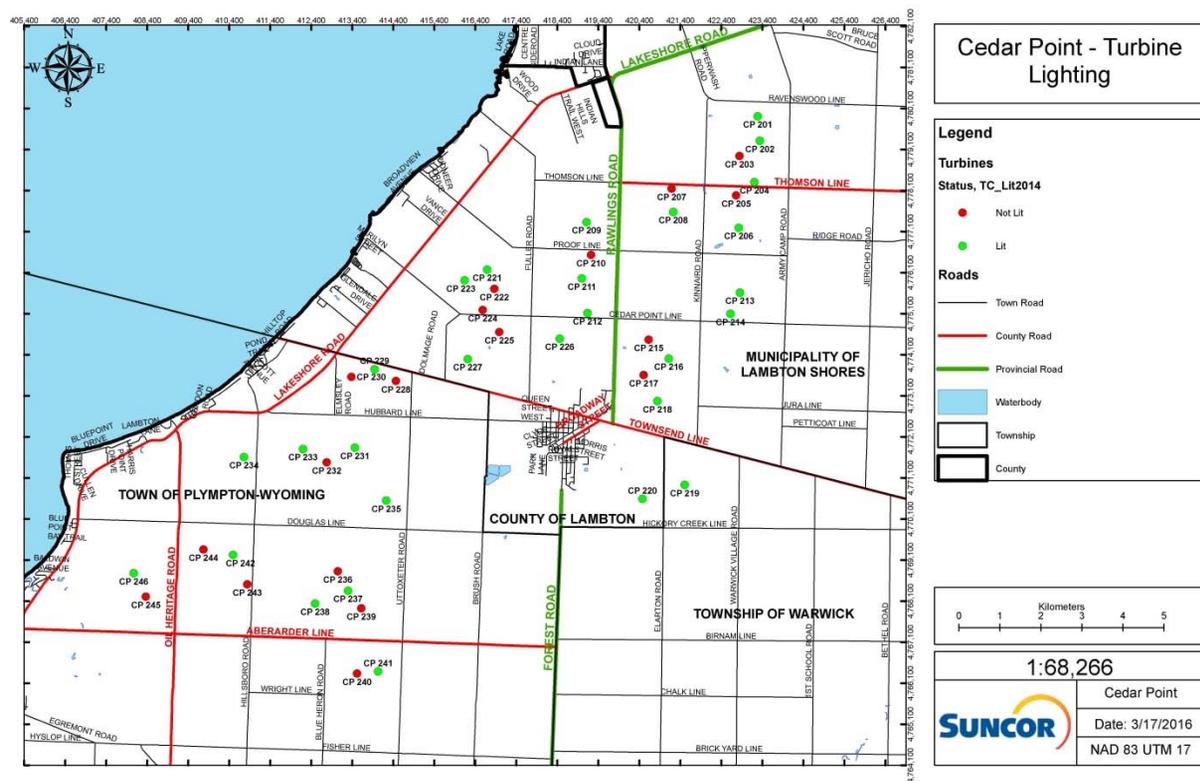
1. Provide updates on the fire suppression systems on the project website	●
2. Post the final replanting plan for the woodlot remediation on the project website	●
3. Provide a plain language summary of the sound audit report and analysis	●
4. Investigate the possibility of extending the bird monitoring period to account for spring Tundra swan migration	●

How frequently would you like to receive project information and in what format? Let us know at [cedarpoint@suncor.com](mailto:cedarpoint@suncor.com) or by telephone at 1-866-344-0178.

# New Questions and follow-up from CLC meeting #3

## Turbine Lighting

- Safety is our primary concern
- Lighting has been installed in accordance with Transport Canada requirements for aviation safety



# Request to Have Supplemental Post Construction Bird Fatality Monitoring



For the Suncor Cedar Point Industrial Wind Power Facility  
Located in: Plympton-Wyoming/Lambton Shores, Ontario

March 22, 2016



Presentation by Kristen Rodrigues

# Wildlife Monitoring at Cedar Point II

CLC Meeting #4

March 22, 2016



# Presentation Outline

- Pre-construction Process
- Cedar Point II and Tundra swans
- Post-construction Bird and Bat Monitoring
- Post-construction Wildlife Behaviour Monitoring



NRSI 2005

# Pre-construction Process

- Records Review
  - Background information
- Site Investigation
  - Collect baseline data on natural features and candidate habitats
- Evaluation of Significance
  - Confirm significant natural features/habitats
- Environmental Impact Study
  - Determine mitigation measures, monitoring and contingency
- Environmental Effects Monitoring Plan
  - Outline monitoring requirements for significant habitats and for bird/bat mortality monitoring
- Species at Risk (SAR)
  - Separate report for SAR, follows same outline as above

# MNRF Significant Wildlife Habitat (SWH) Guidelines

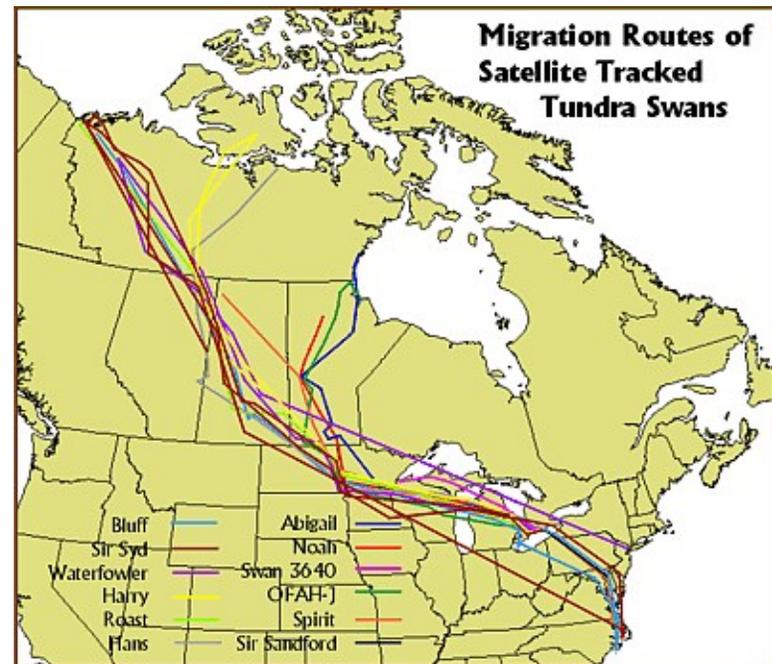
- MNRF has SWH guidelines for different habitat types and species based on the Ecoregion (7E)
- Guidelines are followed to determine significant wildlife habitat
- All reports in the pre-construction process were submitted to MNRF for approval as part of the Natural Heritage Assessment and overall Renewable Energy Approval

# Cedar Point II Pre-construction Monitoring

- Previous consultant completed pre-construction surveys
- Significant wildlife habitats included:
  - Wood thrush habitat
  - Amphibian breeding habitat (woodland)
- Based on significance, post-construction surveys are required to assess any potential changes in habitat use

# Background on the Cedar Point Area and Tundra Swans

- Preference for water + waste grains
  - Largely restricted to Thedford Flats (Greenway Road), Grand Bend, Forest and Thedford Sewage Lagoon, and associated floodplain of the Ausable River
- Project Area is heavily drained for agriculture, leaving few areas of sheet water



Bird Studies Canada 1999

# Cedar Point II Pre-construction Monitoring – Tundra Swans

- Previous consultant completed pre-construction surveys:
  - Initial: Vegetation classification of project area, overlaid suitable habitats for Tundra Swans
  - Secondary: in-field search (March 6, 2013) involved driving transects throughout the site; surveys confirmed lack of suitable habitat, including standing water with waste grains
- No suitable/significant waterfowl stopover areas were found within the project area



Burrell 2015

# Post-construction Bird, Bat and Raptor Monitoring

- Natural Resource Solutions Inc. is completing all bird and bat post-construction monitoring:
  - Following MNRF Guidelines for Birds and Bats (OMNR 2011)
  - All turbines searched once monthly May-November
  - 14 turbines searched twice-weekly from May – October and weekly in November
  - Monitoring will be completed for a minimum of 3 years (2016-2018) using the above search frequency
  - All documented mortality information submitted to MNRF annually
  - Equation to determine mortality levels includes percent area searched, scavenger removal and searcher efficiency rates
  - Specific thresholds for bird, bat and raptor mortalities – if exceeded, mitigation measures required



NRSI 2006

# Post-construction Wildlife Behaviour Monitoring

- Significant Wildlife Habitats
  - Wood Thrush Habitats
  - Amphibian Breeding Habitat (Woodland)
- Tundra Swan Monitoring
  - Each turbine searched at least once per month from May-November
  - Species is obvious and will likely persist at turbines searched a minimum of once per month
  - No Tundra Swan mortalities documented at wind facilities (per Bird Studies Canada)



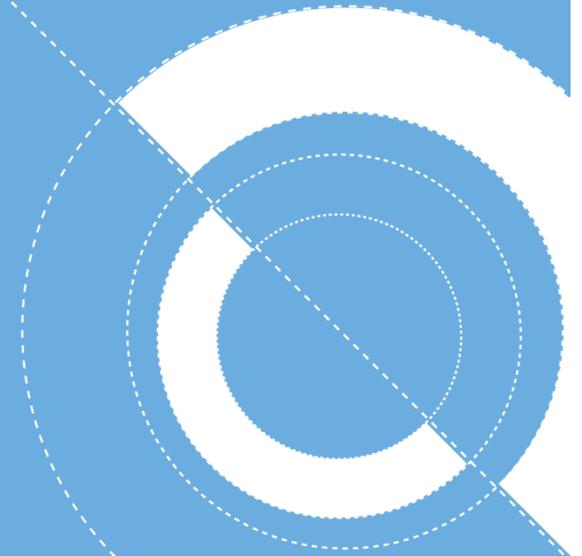
NRSI 2007



Experience the sound.  
Feel the silence.

# Cedar Point Wind Power Project Acoustic Audit

CLC Meeting #4 Cedar Point  
March 22, 2016



# Agenda

- **Cedar Point Acoustic audit**

- Acoustic Audit Immission**

- Receptor Acoustic Audit

- Acoustic Audit Emission**

- Turbine Acoustic Testing (IEC 61400-11:07)
    - Transformer Acoustic Audit (IEEE C57.12.90)

# Cedar Point WPP – REA Requirements

- **Wind Turbine – Receptor Audit**
  - Acoustic audit at five (5) receptor locations
  - Two separate audit periods
- **Wind Turbine – Noise Emission**
  - One test on each turbine type
    - 2.221 MW – 104 dBA
    - 2.126 MW – 103 dBA
    - 2.030 MW – 102 dBA
- **Transformer Substation**
  - Acoustic Audit of Transformer Sound Emissions



# Transformer Audit

- **Noise emission**

- Testing in accordance with the IEEE Standard C57.12.90
- Transformer sound power levels reported and compared to maximum sound power levels specified in Schedule B of REA
- Tonal audibility of transformer assessed



# Cedar Point WPP – Receptor Audit

- **Five (5) locations to be monitored as required by the REA**
- **Receptor locations chosen based on worst case impact and prevailing downwind conditions (requirement of REA)**
- **Measurement procedure and analysis based on MOECC guideline - Compliance Protocol for Wind Noise**
- **Measurement during night-time (10pm to 5am)**
- **Data set**
  - 120 one-minute intervals for Turbine ON. Between 4-7m/s (10m height). Each bin (+/- 0.5m/s)
  - 60 one-minute intervals for Background. Between 4-7m/s
- **Placement of monitoring equipment (5 stations) for ~4 weeks**



# Cedar Point WPP – Receptor Audit

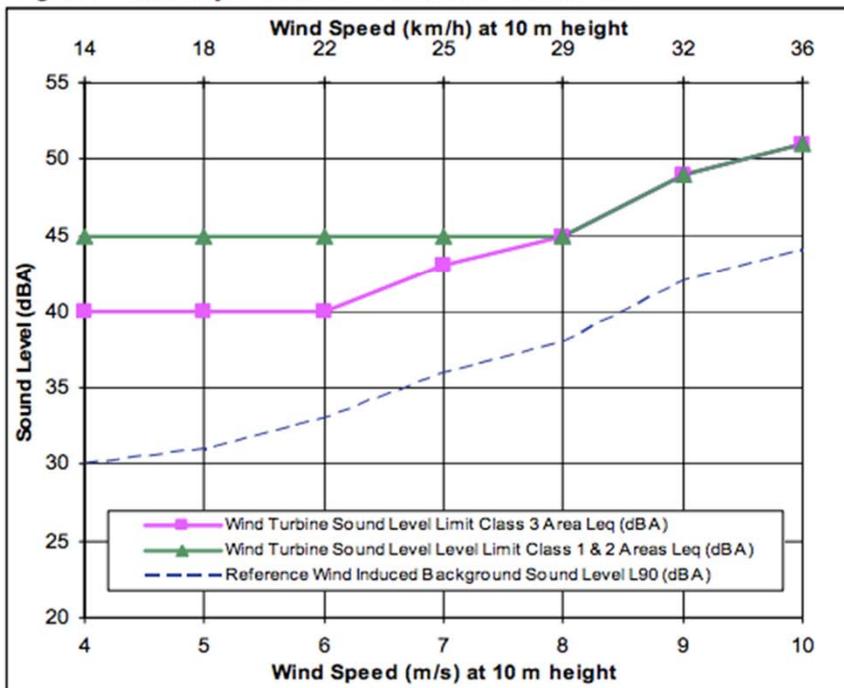


# Cedar Point WPP – Receptor Audit

## Sound Level limits

Wind Speed (m/s) at 10 m height	4	5	6	7	8	9	10
Sound Level Limits, dBA	40.0	40.0	40.0	43.0	45.0	49.0	51.0

Figure 1 Summary of Sound Level Limits for Wind Turbines



The purpose of the Receptor Audit report is to:

- compare the measured levels to MOECC sound level limits; and
- determine whether the facility is in compliance with the REA

# Noise Emission Audit (IEC 61400-11)

- **Three (3) turbines to be tested as required by the REA**
- **One (1) test per each turbine type:**
  - 2.221 MW – 104 dBA – CP235
  - 2.126 MW – 103 dBA – CP237
  - 2.030 MW – 102 dBA – CP209
- **Acoustic emission measurements performed in accordance with the CAN/CSA-C61400-11:07 National Standard.**
- **Equivalent to IEC 61400-11 Edition 2.1**



# Schedule

- **COD: October 7<sup>th</sup>, 2015**
- **Wind Turbine – Receptor Audit**
  - Audit 1 due date – 12 months from COD – October 7, 2016
    - Likely start Spring 2016
  - Audit 2 due date – 18 months from COD – December 7, 2016
    - Likely start Fall 2016
- **Wind Turbine – Emission Audit**
  - 12 months from COD – October 7, 2016
    - Start Spring 2016
- **Transformer Audit**
  - 6 months from COD – April 7, 2016
    - Field work completed

# Thank You

Comments or questions?

Payam Ashtiani

PayamA@Aercoustics.com – 416-249-3361

## HEALTH AND SAFETY REPORT

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*Suncor is committed to a culture of operational discipline which is foundational in achieving safety, environmental and health and wellness excellence.*

# COMPLAINTS AND QUESTIONS



## WHERE TO GET INFORMATION



Website  
[www.suncor.com/  
cedarpointwind](http://www.suncor.com/cedarpointwind)



Telephone  
1-866-344-0178



Email  
[cedarpoint@suncor.com](mailto:cedarpoint@suncor.com)



## CONTACT INFORMATION

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### Emergencies

- Dial 9-1-1 or your local emergency response number

### Cedar Point Questions

- Email [cedarpoint@suncor.com](mailto:cedarpoint@suncor.com)
- Call toll-free 1-866-344-0178

### Landowners with leases

- Contact Contract Land Services (Bruce Lyle or Earl Moore)

### Media inquiries

- Call 403-296-4000