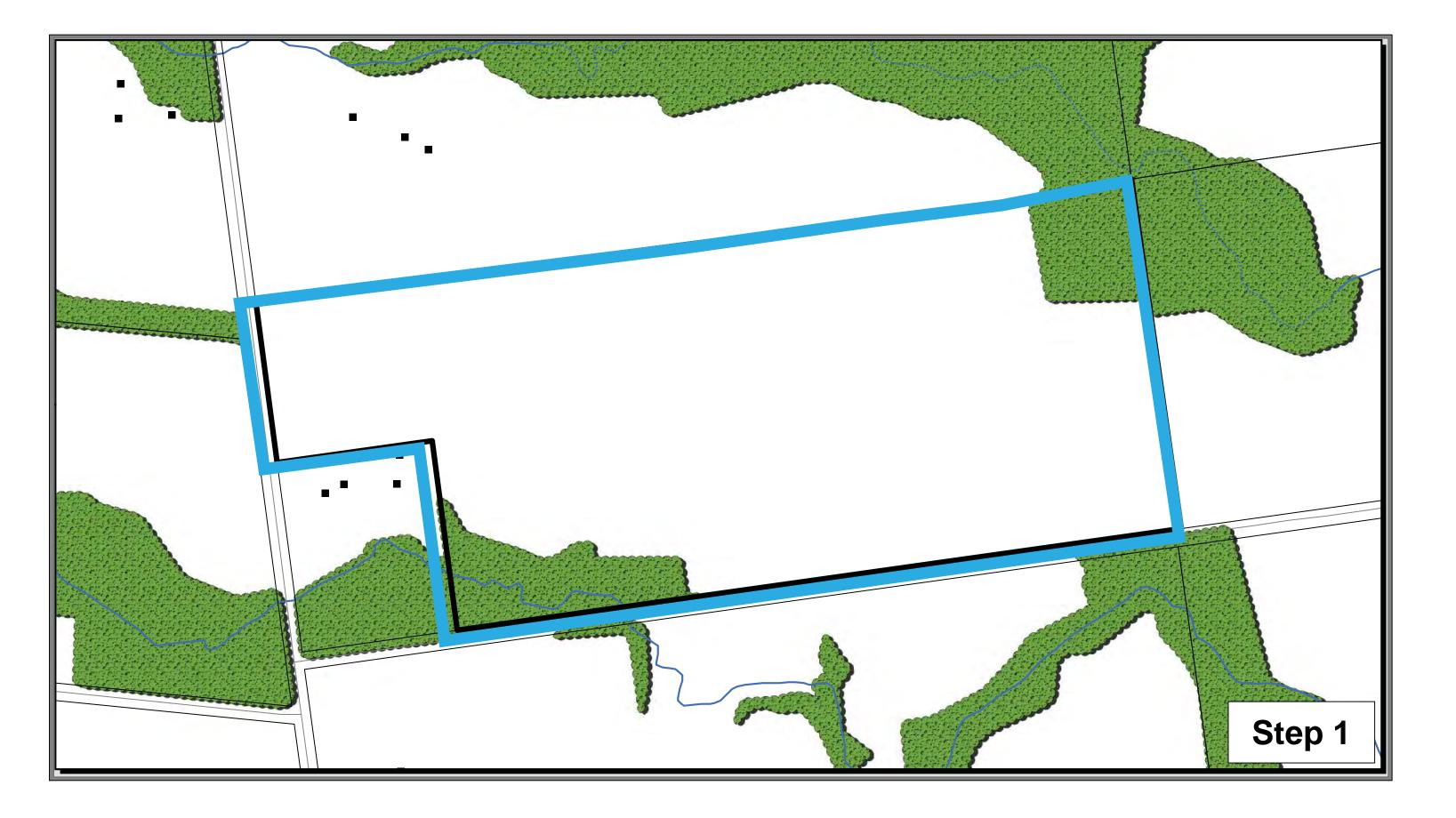
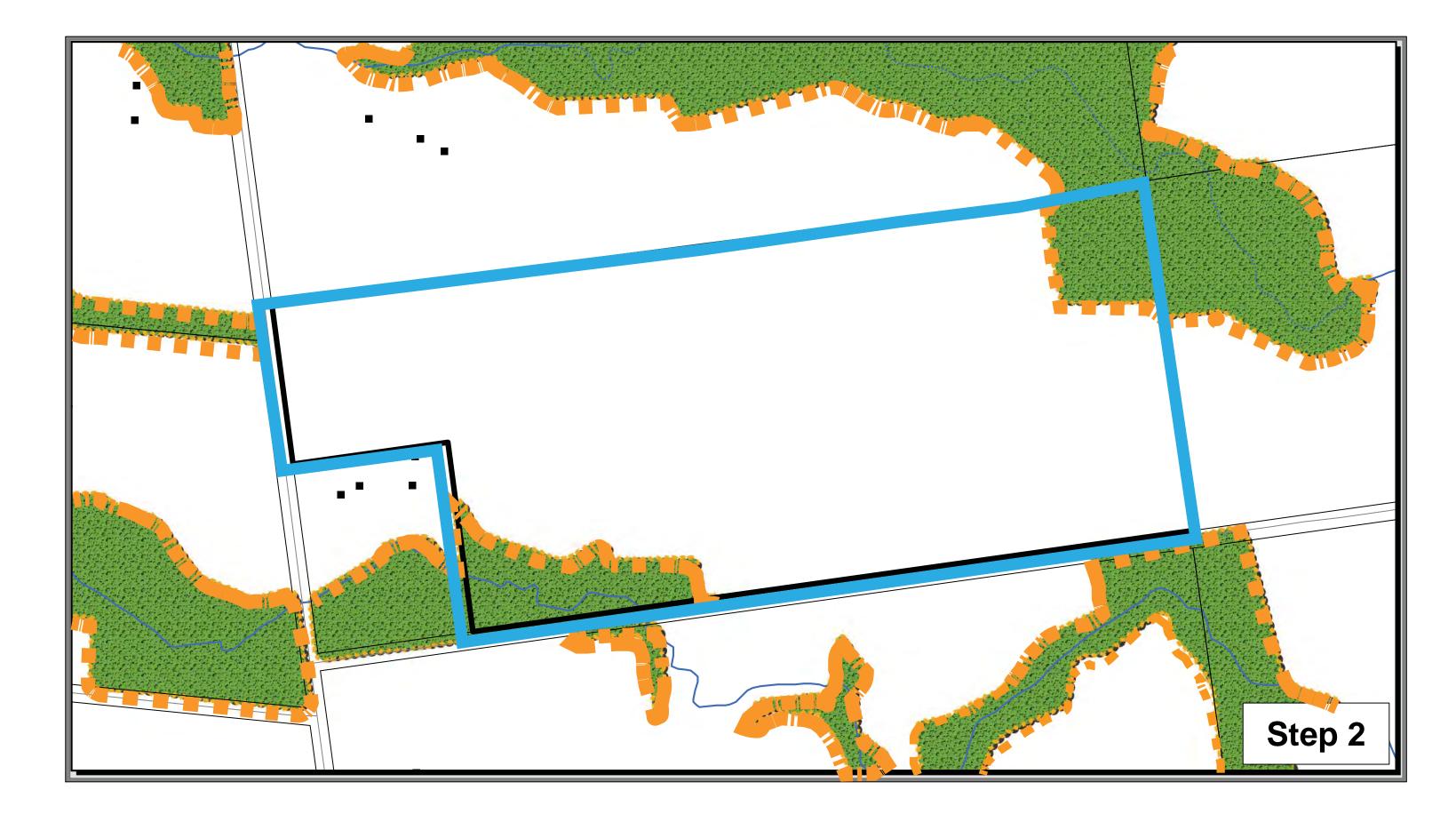
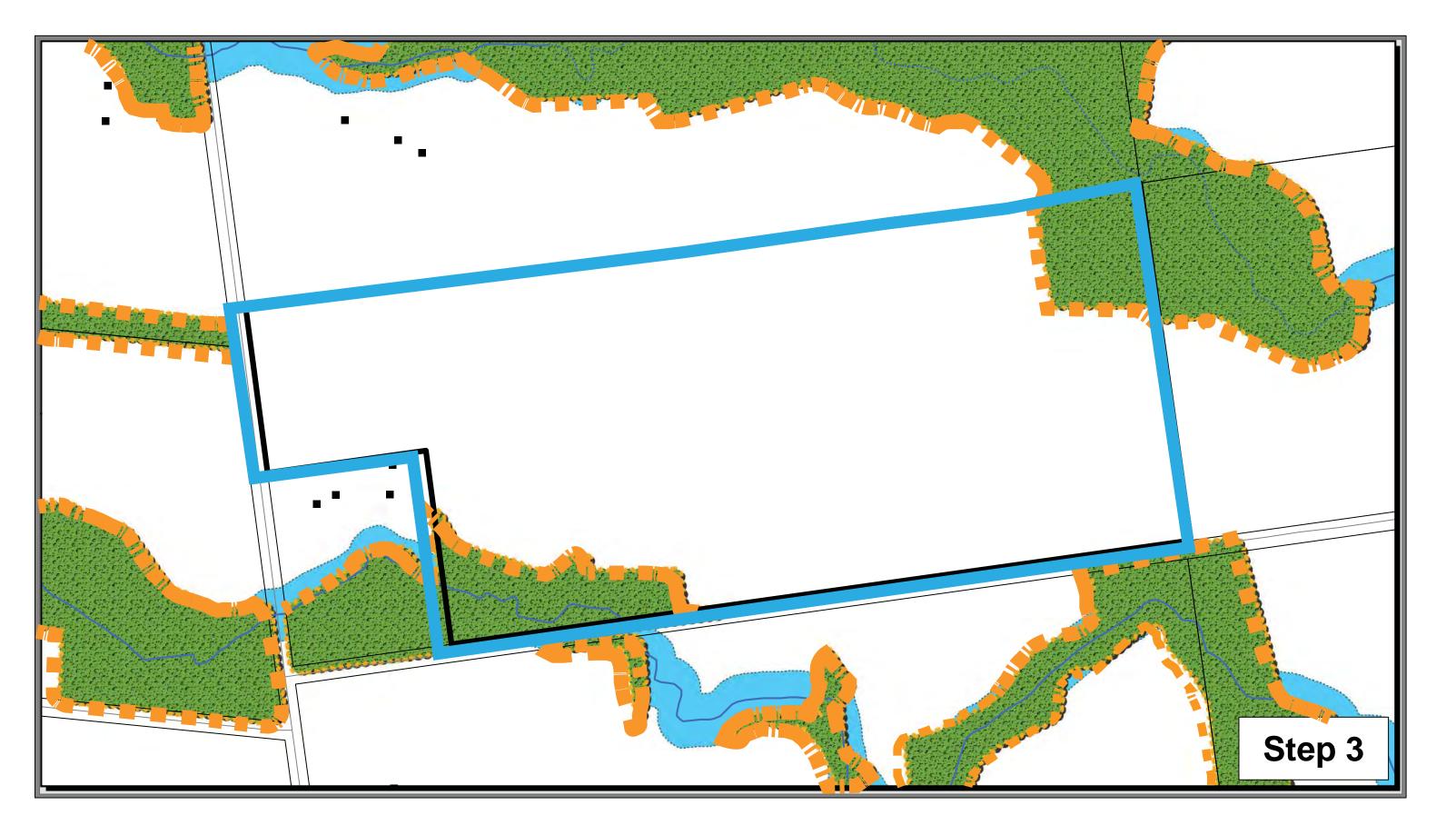
### Turbine Siting Process

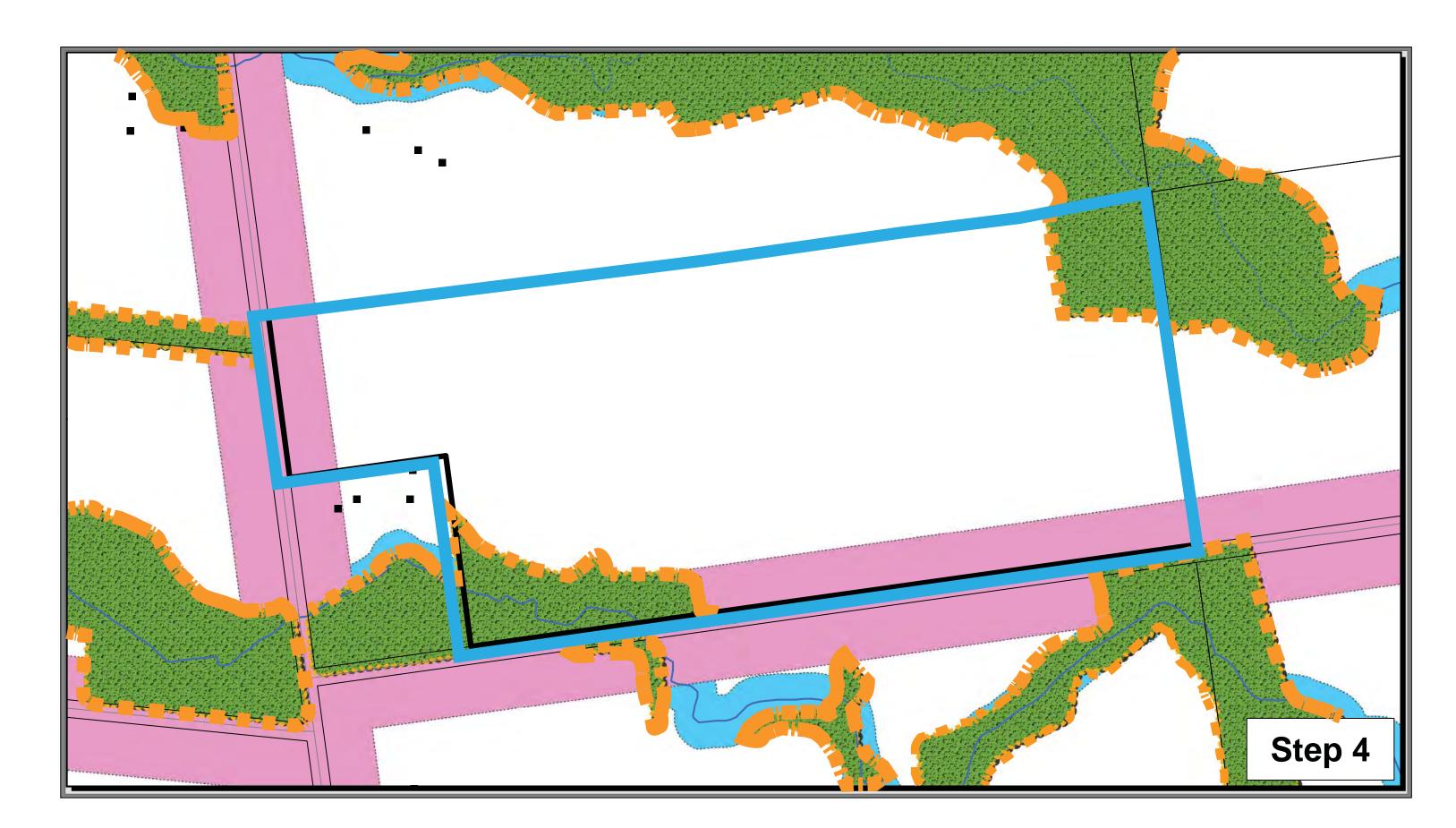




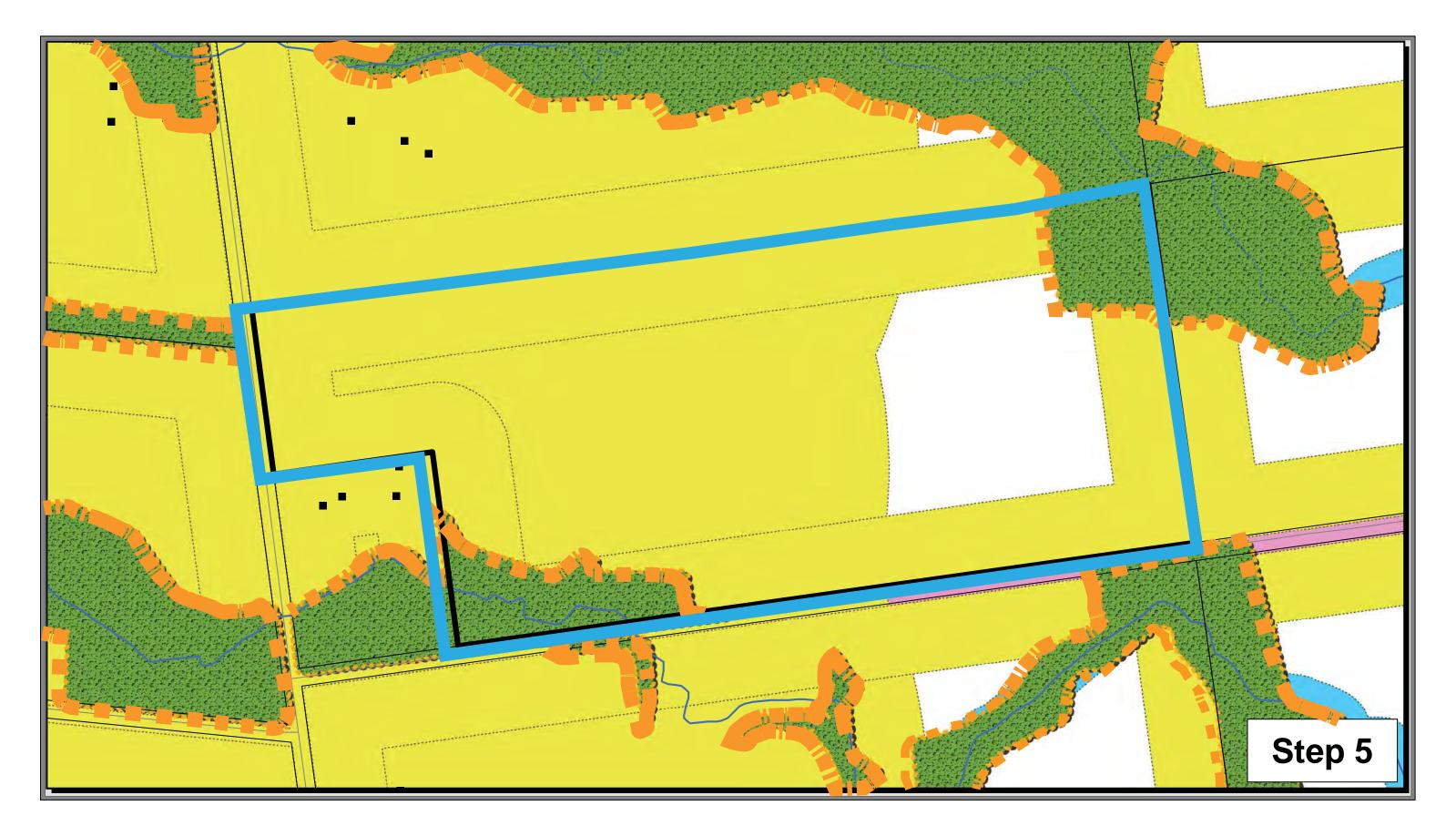
Step 1: Work with local landowners to option land



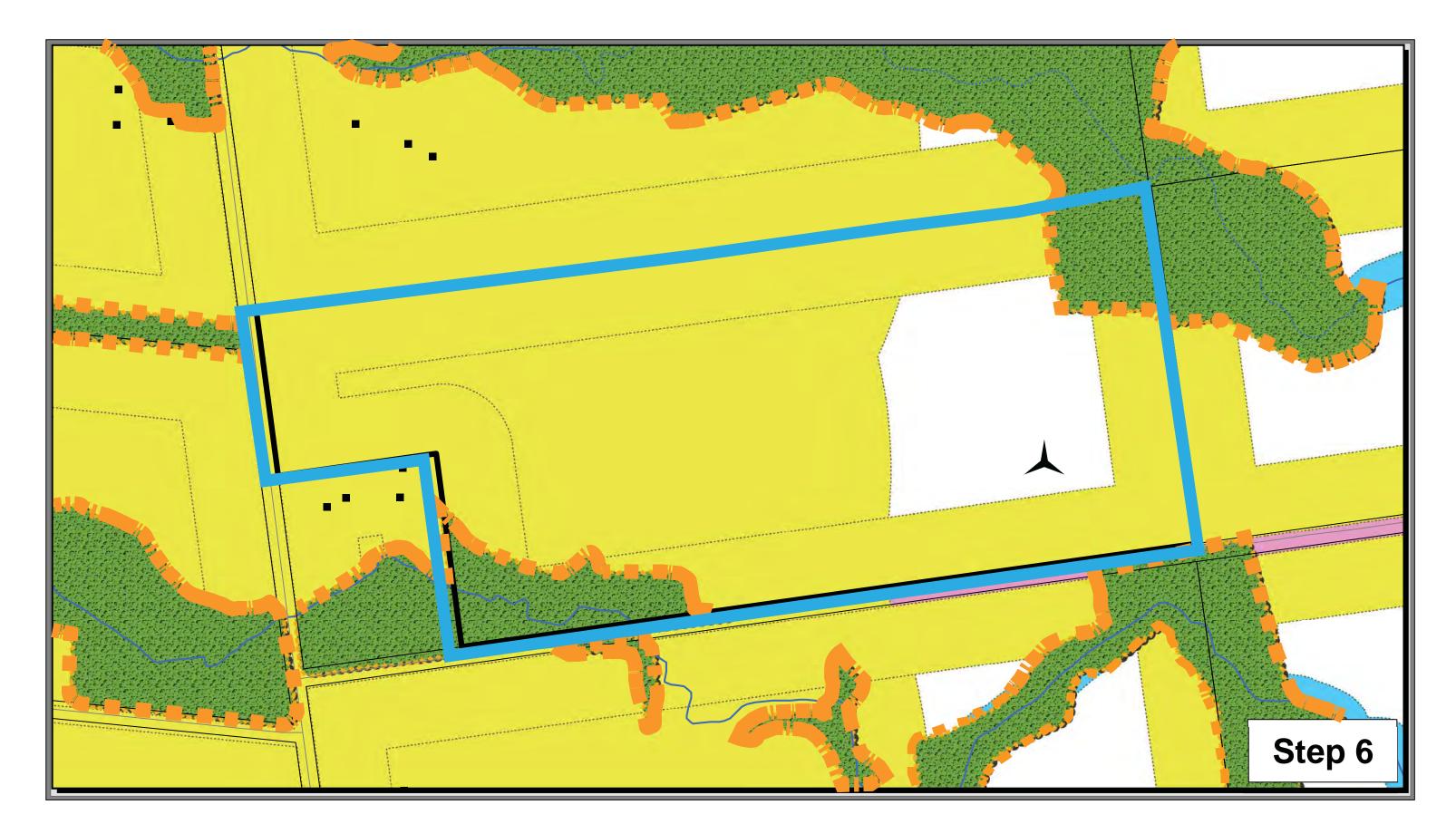
Step 2: Identify environmental limitations



Step 3: Identify aquatic limitations



Step 4: Identify local infrastructure limitations

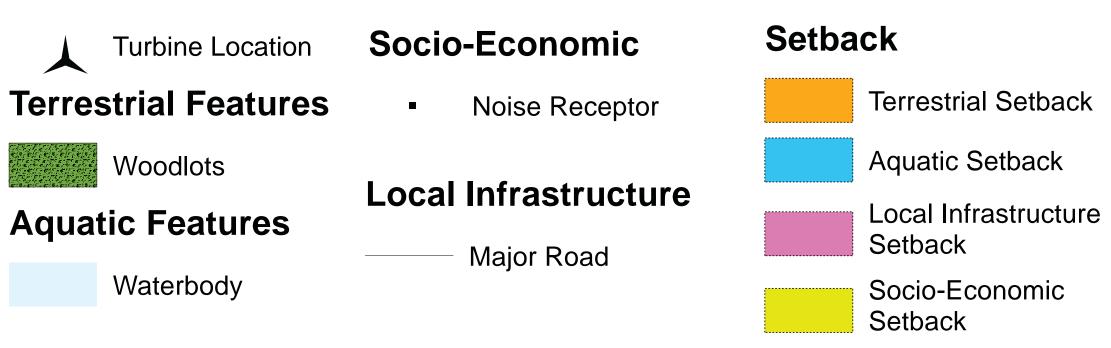


#### Step 5: Identify socio-economic limitations

#### Step 6: Site turbine within remaining land available

# NEXTERAT MALE

#### Legend



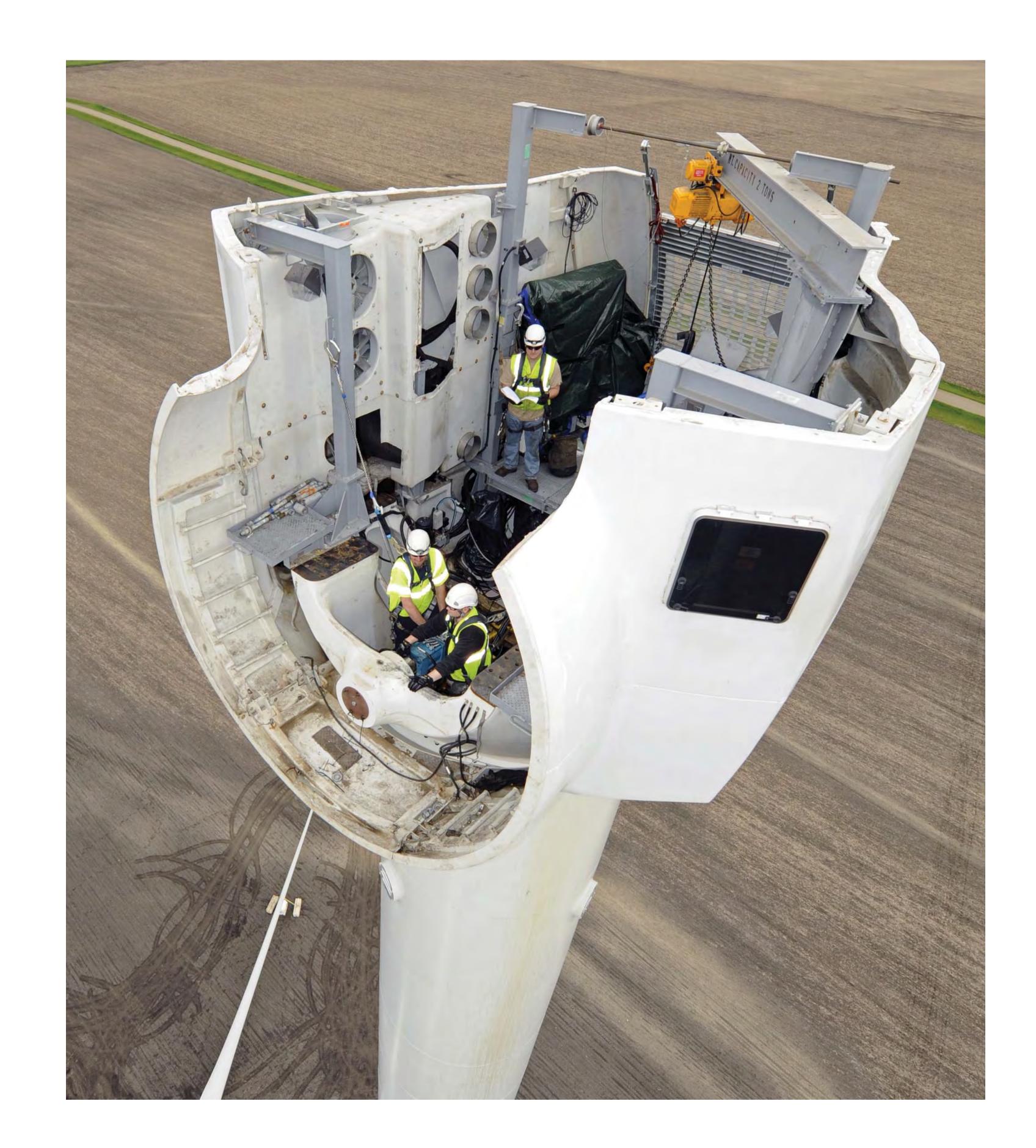
### Construction Plan

Turbine siting and surveys

- Site preparation will include final turbine siting and surveys
- During these surveys, boundaries of turbine sites will be staked and existing buried infrastructure will be located and marked

#### Access roads

- Municipal and Provincial roads will be used to transport equipment to the construction sites
- Minor modifications may be required to some of the existing roads (e.g. widening the turning radius) to transport equipment
- New access roads will typically be 10 m (34 feet) wide during the construction phase
- No permanent paved roads will need to be constructed for the turbines
- Equipment will be delivered by truck and trailer as needed throughout the construction phase and stored at temporary laydown sites surrounding each turbine





### Construction Plan

**Electrical Collector System:** 

- This system consists of a mixture of underground cables, pad mounted transformers and a substation
- A Ploughing and trenching will be used to install the underground cables
- A The cabling will be buried at a depth that will not interfere with normal agricultural practices and maps of cable locations will be provided to landowners

#### Wind Turbines:

- Foundations will be made of poured concrete, reinforced with steel rebar to provide strength
- Each foundation will require an excavation of approximately 3 metres (10 feet) deep, and 20 metres (66 feet) by 20 metres (66 feet) square
- A Only the tower base portion of the foundation will be left above ground
- The turbine will then be anchored to the foundation by large bolts set in the concrete foundation
- ▲ Turbine assembly and installation will typically require 4 5 days per turbine
- Following commissioning, the area surrounding the turbine will be returned to its pre-construction state

#### **Operations and Maintenance Building:**

- A This building will be used to monitor the day-to-day operations of the wind farm and maintenance effort. Preferably, an existing building will be obtained for this purpose; otherwise, a new building will be constructed on privately held lands
- Potable water will be supplied by a well or through the municipal water system and if required, a septic bed will be constructed for the disposal of sewage
- These elements will be constructed in accordance with applicable municipal and provincial standards

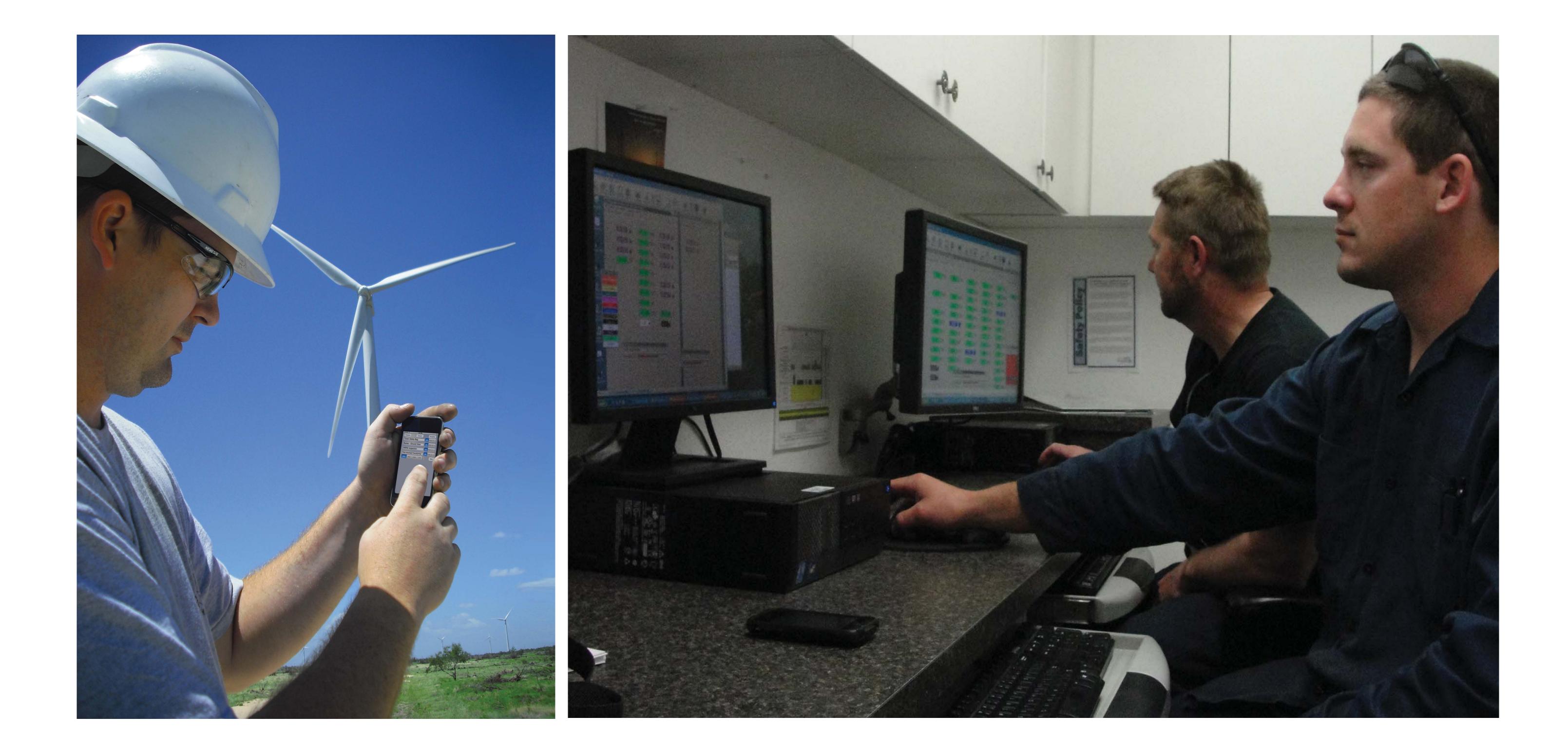




### **Operations and Maintenance**

NextEra Energy believes in "prevention" versus "event response" through component condition and performance assessment

- Experienced operations and maintenance managers on site
- On-going training and mentoring programs to maintain safe and efficient operation
- Site staff supported by centralized maintenance and environmental staff
- Supported by 24/7 Fleet Performance and Diagnostic Centre
- Local operations team available to answer questions and address concerns





### Health and Wind Turbines

• Public health and safety will be considered during all stages of the Project.

 Many studies have been conducted world-wide to examine the relationship between wind turbines and possible human health effects.

• In Ontario "Ontario doctors, nurses, and other health professionals support energy conservation combined with wind and solar power – to help us move away from coal"

Ontario College of Family Physicians, Registered Nurses Association of Ontario, Canadian Association of Physicians for the Environment, Physicians for Global Survival, the Asthma Society of Canada, and the Lung Association

- In "The Potential Health Impact of Wind Turbines" (May 2010), Ontario's Chief Medical Officer of Health examined the scientific literature related to wind turbines and public health, considering potential effects, such as dizziness, headaches, and sleep disturbance. The report concluded that:
  - "...the scientific evidence available to date does not demonstrate a direct causal link between wind turbine noise and adverse health effects. The sound level from wind turbines at common residential setbacks is not sufficient to cause hearing impairment or other direct health effects, although some people may find it annoying."
  - The report also concluded that low frequency sound and infrasound from  $\mathbf{\mathbf{k}}$ current generation upwind model turbines are well below the pressure sound levels at which known health effects occur. Further, the report states that there is no scientific evidence to date that vibration from low frequency wind turbine noise causes adverse health effects.
- Overall, health and medical agencies agree that sound from wind turbines is not loud enough to cause hearing impairment and is not causally related to adverse effects.\*
- Scientists and medical experts around the world continue to publish research in this area. Through our health consultants, NextEra is committed to staying informed on this issue.

\*e.g., Chatham-Kent Public Health Unit, 2008; Minnesota Department of Health, 2009; Australian Government, National Health and Medical Research Council, 2010; Australian Government, 2011, Massachusetts Department of Environmental Protection (MassDEP) and Massachusetts Department of Public Health (MDPH), 2012



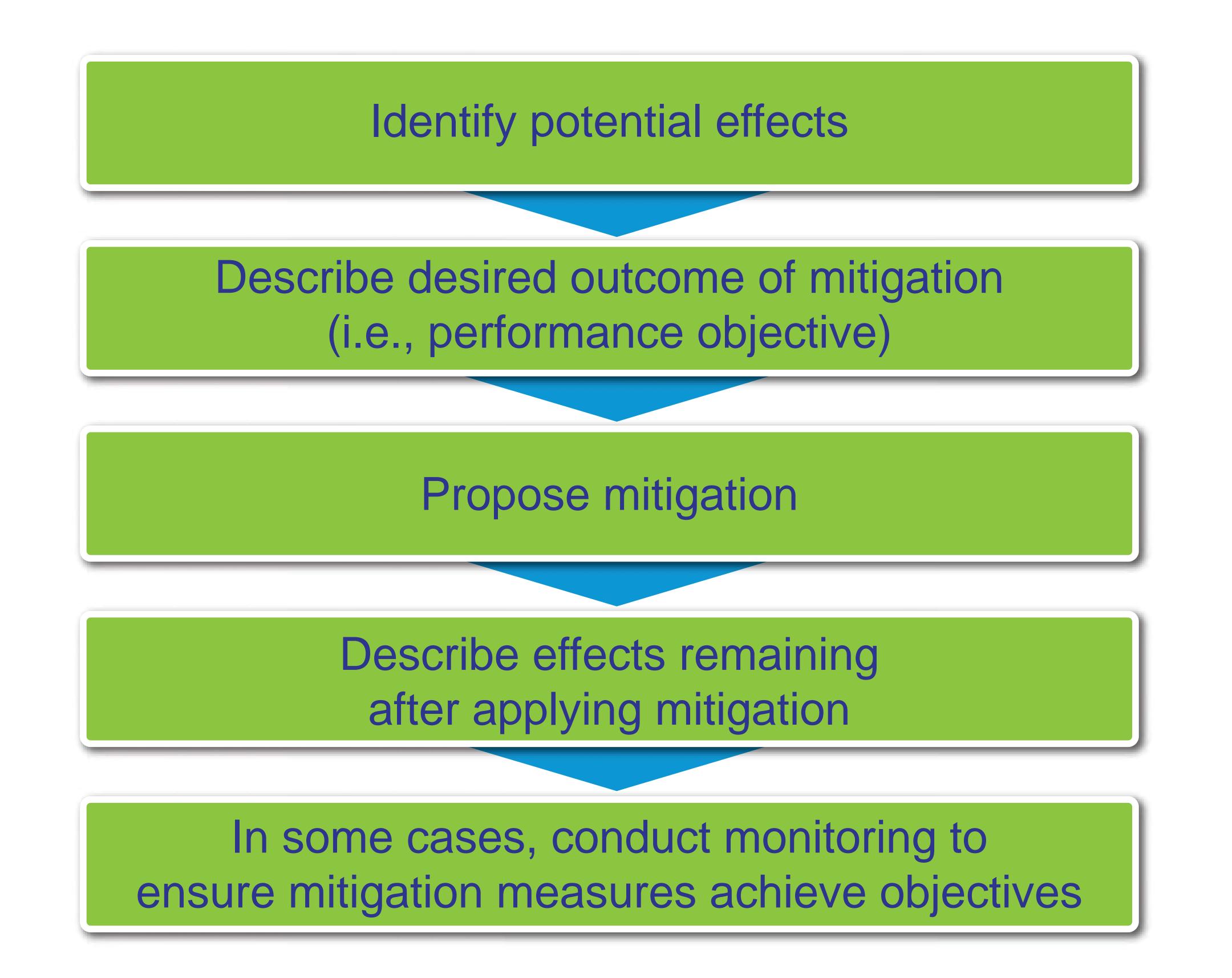


### Effects Assessment

Potential effects were assessed based on the following:

- Archaeological sites;
- A Natural Heritage (e.g. birds, bats, wetlands etc.);
- ✓ Water Bodies;
- Cultural Heritage features;
- ▲ Noise; and
- ▲ Shadow flicker.

The diagram below shows the process followed for the effects assessment:





### Cultural Heritage – Bornish Wind Energy Centre

• A Cultural Landscape and Built Heritage Self Assessment was completed in accordance with Ontario Regulation 359/09 under the Environmental Protection Act (2009).

 Consultation with the Ontario Heritage Trust, the municipality and a property inspection was conducted to ensure that there were no protected properties or properties with potential heritage significance or interest within and adjacent to lands proposed to have project infrastructure.

 Following the assessment, it was determined that no protected properties or cultural heritage landscapes with heritage value or interest are situated within or beside the Project Location.





