

# Pollinator Opportunities Within Rights-of-Way

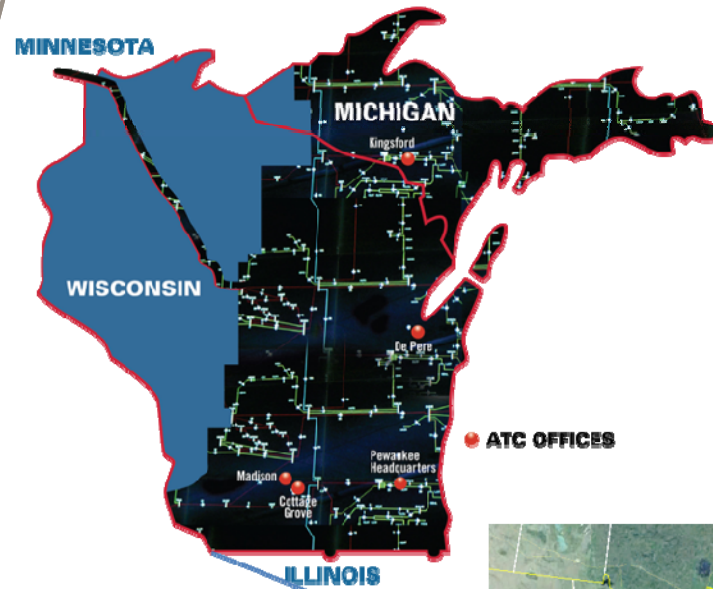
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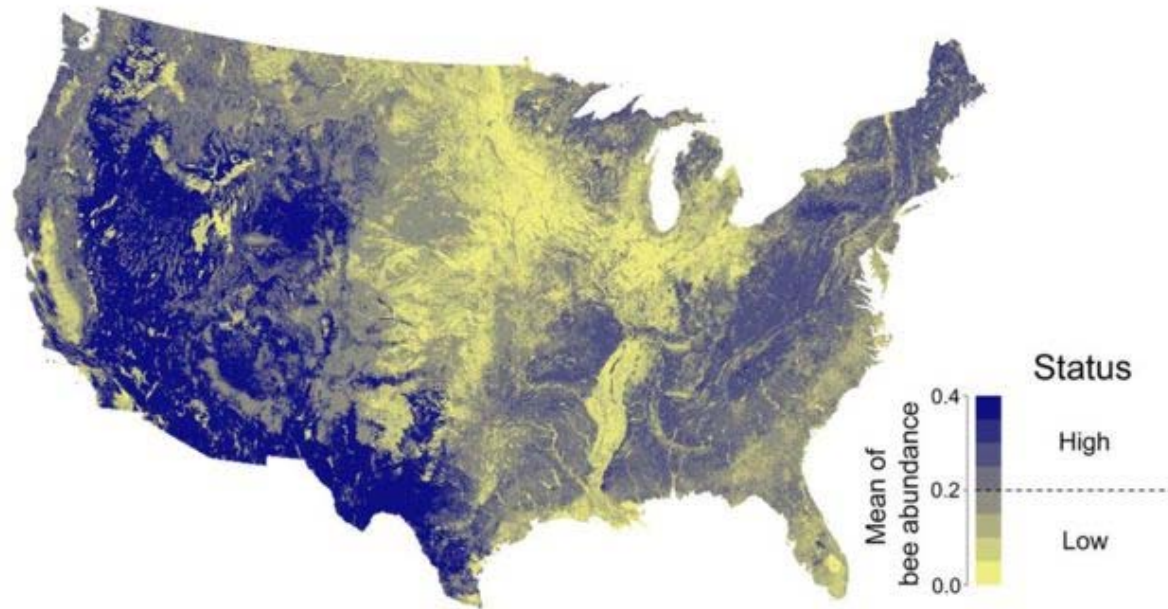
## ATC's Operational Footprint

- > 9,540 miles of high-voltage transmission lines
- > 548 substations
- > Of the total above, approximately 8,000 miles of transmission line occur in Wisconsin



## Pollinator Declines Are Everyone's Concern

- > Between 2008 and 2013, modeled native bee abundance declined across 23% of U.S. land area (Koh et al. 2016)
- > RPBB is only found in 8% of its historic extent (USFWS 2016). Listed as Endangered.
- > Wisconsin was among the U.S. states suffering an annual honey bee colony loss greater than 60% (DATCP 2016)



Status of wild bee abundance (relative index) for 2013. (from Koh et al. 2016)



## Utilities Role in Pollinator Conservation

- > Rights-of-way can support pollinator conservation through providing:
  - Nesting and egg-laying habitat
  - Sustained pollen and nectar resources
  - Corridors for pollinator movement
  
- > Rights-of-way value cited by DATCP 2016, Xerces Society 2015, Wojcik and Buchmann 2012, Hopwood 2008, Russell et al. 2005, and Ries 2001





## ATC Pollinator Program Goals

- > Enhance pollinator habitat within ATC-managed rights-of-way and facilities,
- > Work in partnership with Federal, State, Tribal, non-governmental organization (NGO's), and private entities to raise public awareness, and
- > Be recognized as a leader in the utility industry for pollinator conservation.





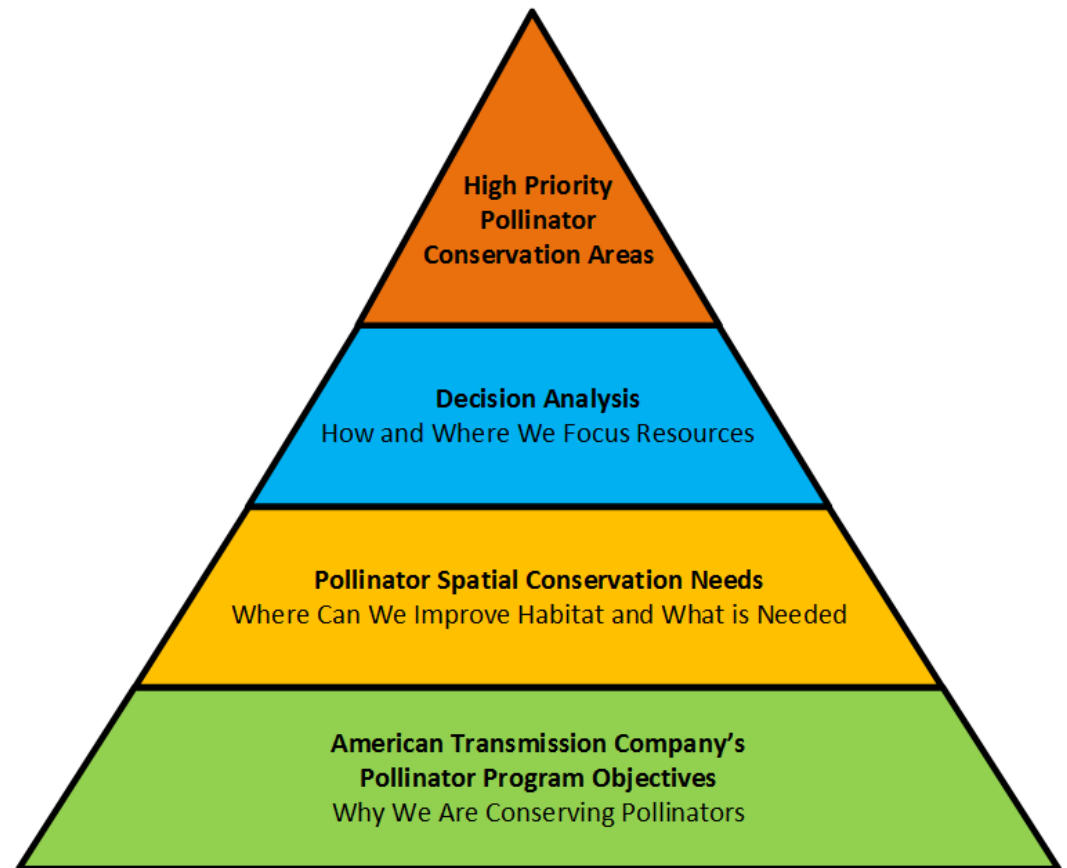
## Purpose of POWR Model

- > To help ATC achieve its objectives, Cardno developed the Pollinator Opportunities Within Rights-of-Way (POWR) model to help:
  - Identify priority areas for pollinator conservation along ATC ROW, and
  - Inform ATC's future conservation decisions related to pollinators.



## POWR Model Development

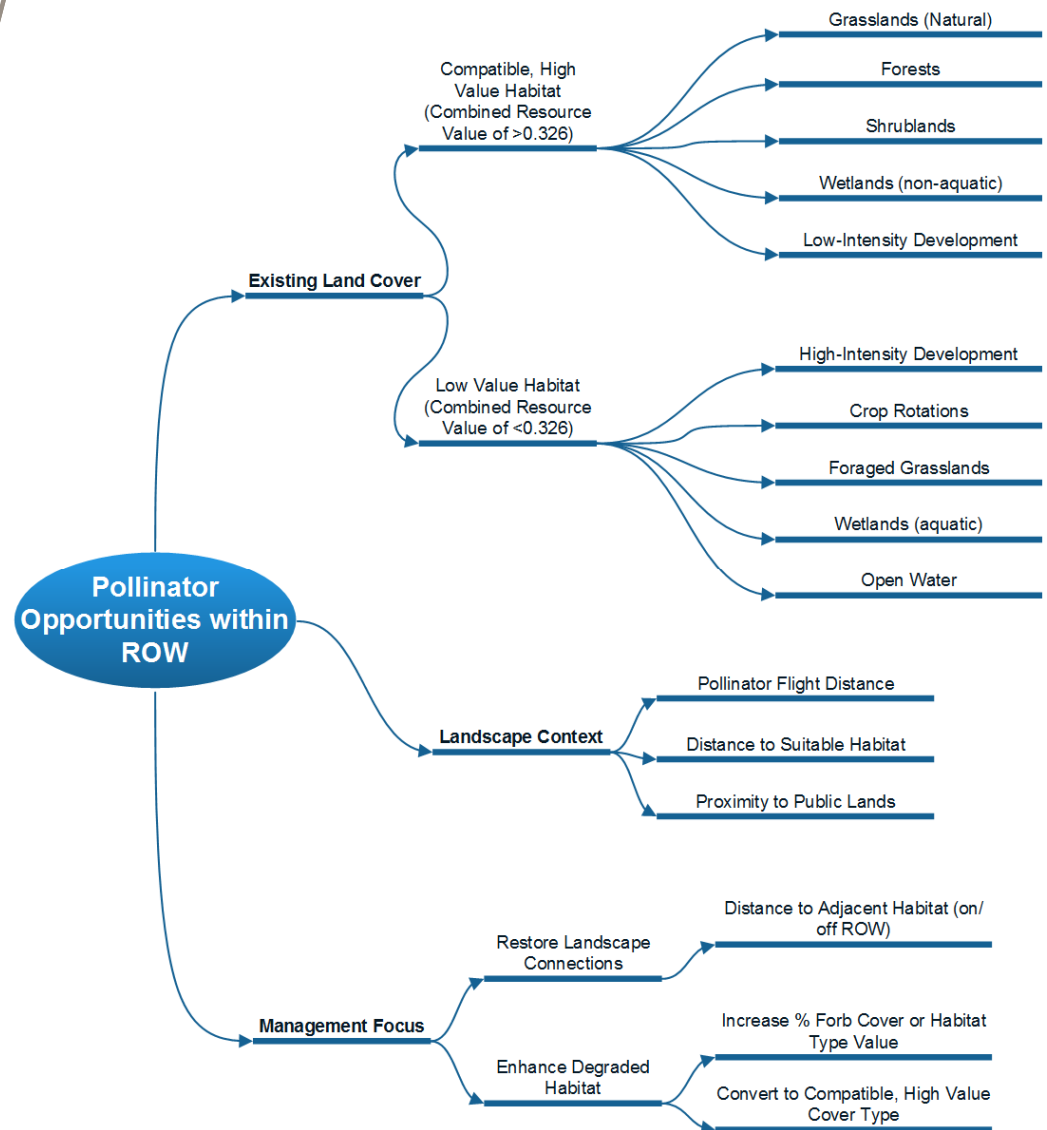
- > POWR was developed using spatial and decision modeling:
  - Spatial modeling informs how and where to conserve targets and achieve objectives.
  - Values-based decision making informs what's important to us and where we focus resources.



# POWR Model Spatial Influences

> POWR considers the following influences on spatial conservation needs:

- Management Focus for ROW Contributions
- Landscape Context for Target Segments
- Existing Land Cover and Pollinator Value

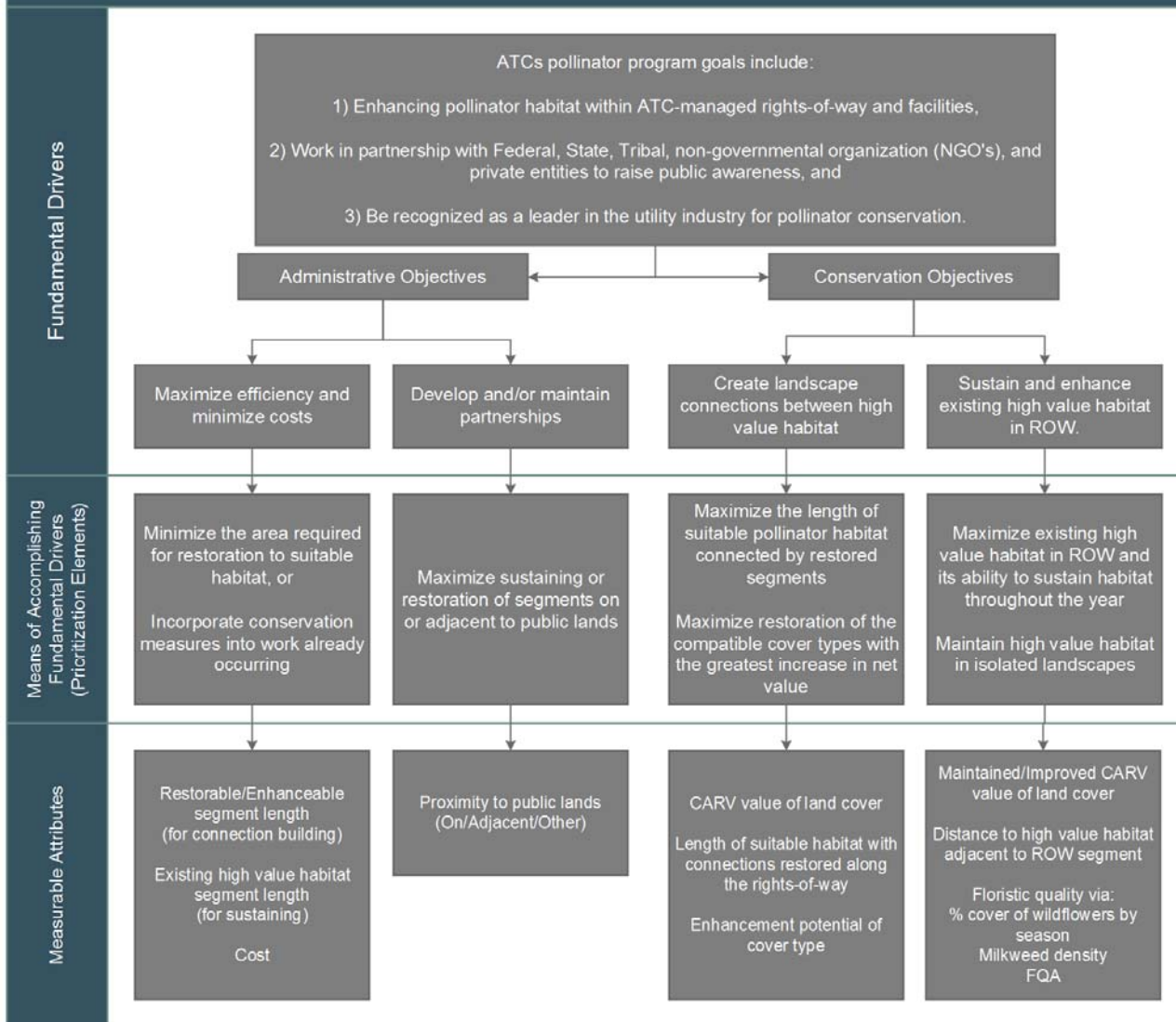




# Decision Modeling

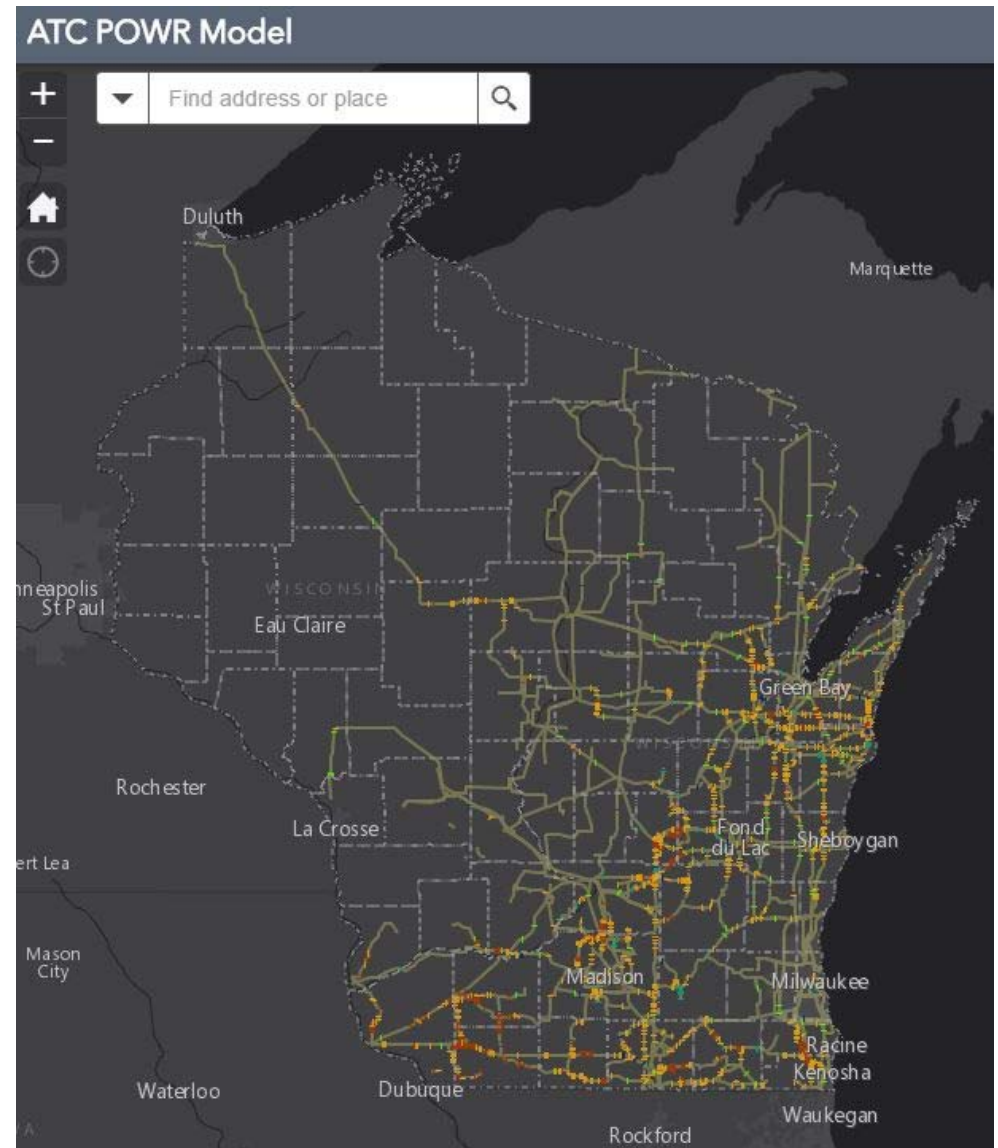
- > Used elements of structured decision making to define:
  - Goals and objectives,
  - Conservation targets,
  - Selection and prioritization.

## Pollinator Habitat Enhancement Drivers Within ATC Rights-of-Way



## Results

- > Across 7,900 miles of ROW in Wisconsin:
  - 6,989 miles of ROW within/adjacent to high value land covers
  - 911 miles identified as enhanceable landscape connections
  - 210 segments are located on, or adjacent to, public lands.



## Examples

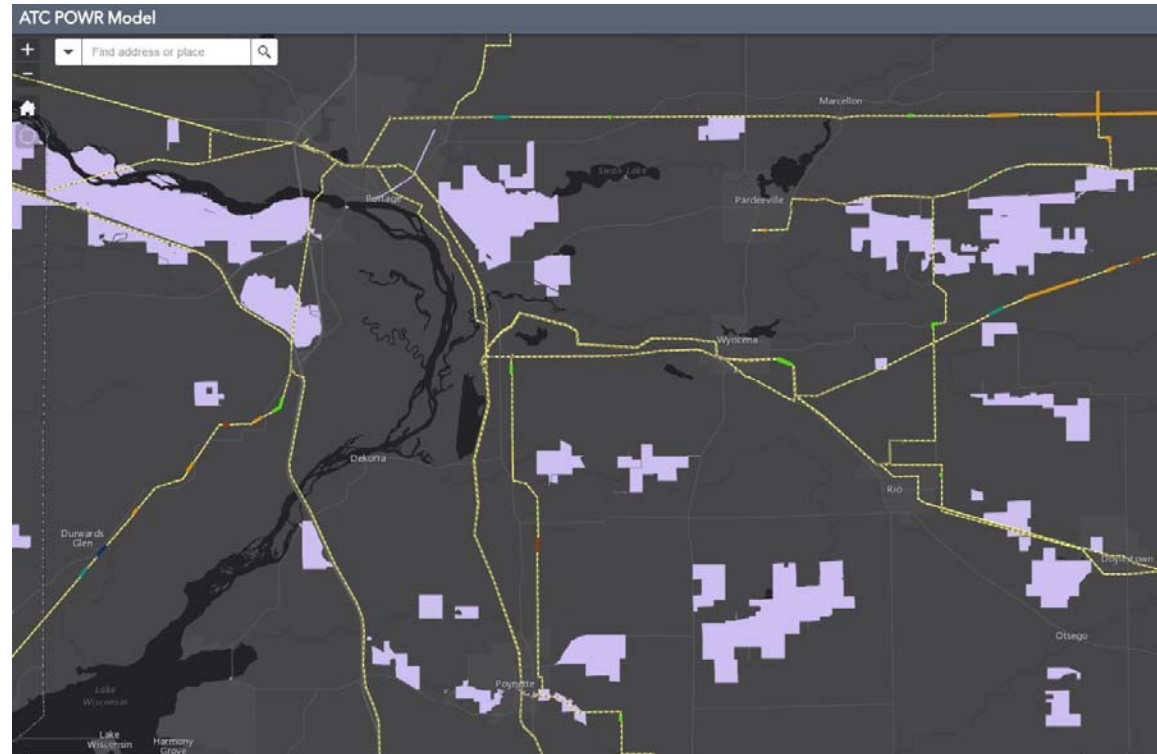
- > X95 Priority Segment near Footville, WI:
  - Identified as connecting Idle Grassland and Deciduous Forest habitats
  - Field review verified conditions and modeled land covers





# Applying POWR to ROW Management

- > All enhanceable segments identified are priority segments for building landscape connections and restoring high value land cover.
- > Areas of existing high value land cover are important for sustaining landscape connections and pollinator nesting/floral resources.



## Applying POWR to ROW Management

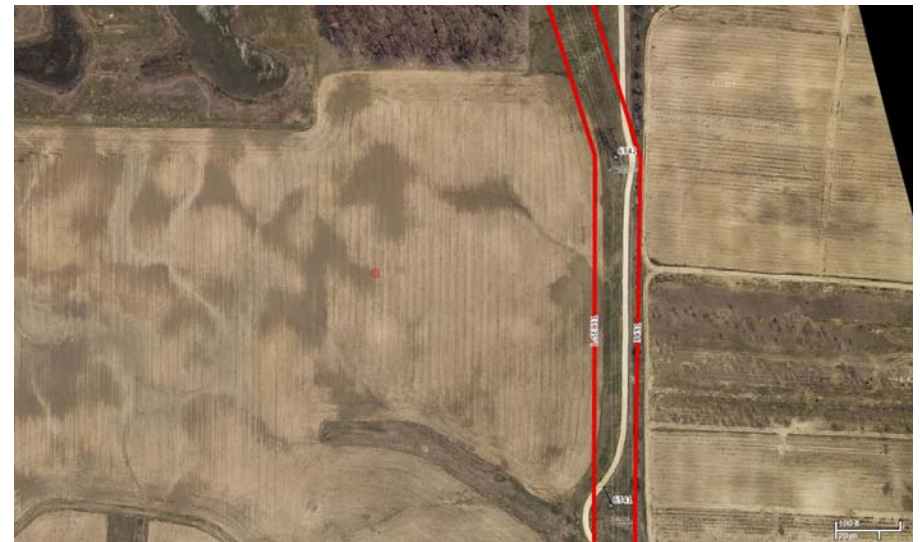
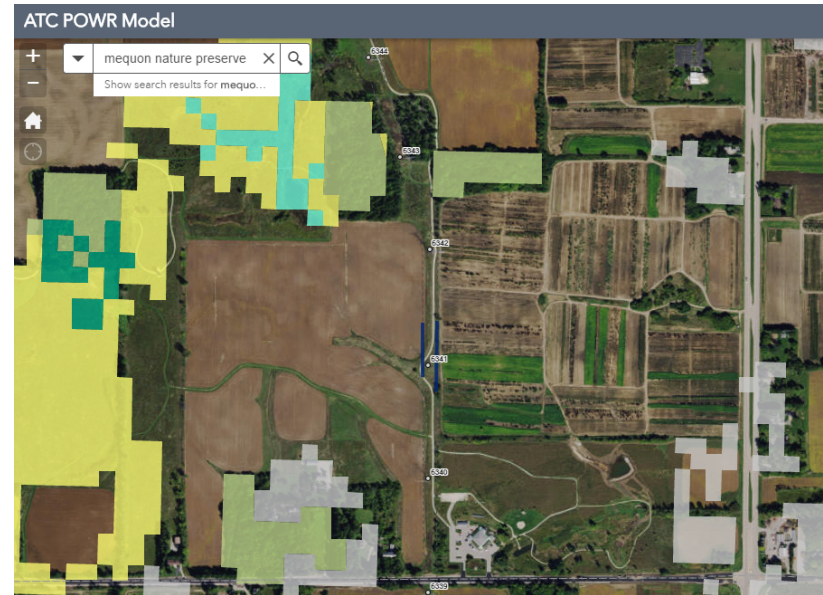
- > Consideration of conservation measures will depend on work planned in the area:
  - Vegetation management
  - Construction and maintenance
  - Special projects





## Application Example

- > 3431 Priority Segment near Mequon, WI:
  - Identified as connecting Idle Grassland and Deciduous Forest habitats
  - Site of planned prairie restoration enhancement project at Mequon Nature Preserve





## Next Steps

- > Use POWR Model to inform project, maintenance, and special project decisions.
- > Update POWR Model to identify priority segments for maintenance needs and ROW management.
- > Update modeling and prioritization as new information becomes available.





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