



ROW Habitat Database

Rights of Way as Habitat Working Group

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Illinois Department of Transportation



ERC
ENERGY RESOURCES CENTER



ENGINEERING

Core Purpose Statement

The Rights-of-Way as Habitat Database will serve as a central repository for tracking existing, restored, and potential habitat areas to further our understanding of the ecological benefits and opportunities of rights-of-ways.

This database system aims to facilitate conservation partnerships within and across sectors, supports engagement with resource agencies to help avoid future listings under the Endangered Species Act, and works to promote voluntary conservation actions for at-risk or listed species.

Benefits of Participating

- **Track Progress** To advance our knowledge and understanding of the collective impact and value ROW organizations play in supporting pollinators.
- **Collaboration** Sharing your pollinator habitat areas enables the capacity for greater collaboration between organizations.
- **Reporting Out** Data entered into the system can be used for reporting to the Monarch Conservation Database (MCD) anonymously as part of ROW as Habitat Working Group and to demonstrate our collective impact.
- **Repository for Metrics and Monitoring** The system will include Pollinator Score Card fields for recording your data and observations and will allow you to report on the findings.
- **Communicate** Share your ecological accomplishments with stakeholders and the public.
- **Manage Conservation Goals** Track your organization's goals and progress.

Interim MCD Reporting Template

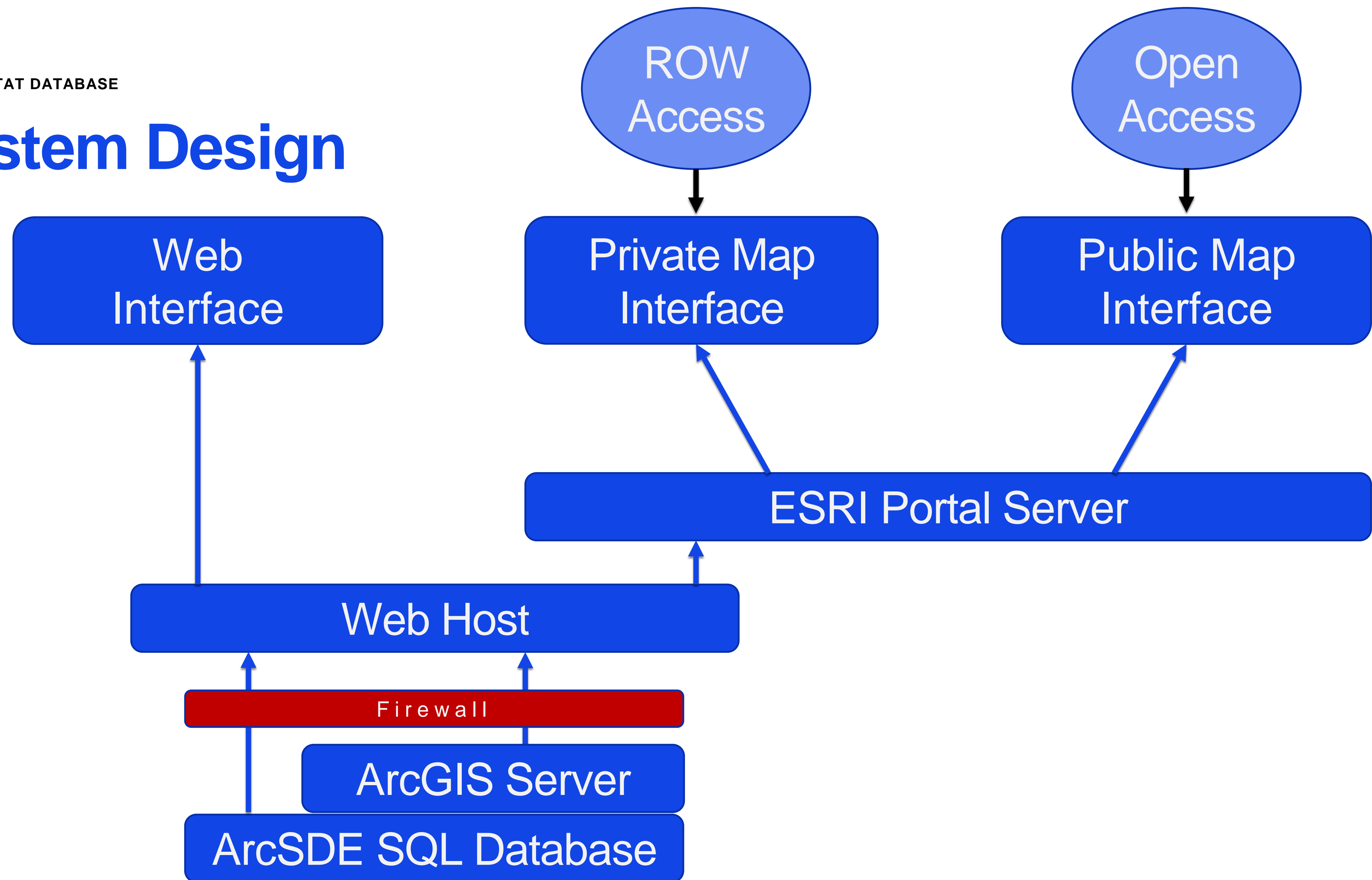
- Anonymous or named reporting options
- Reporting via a simplified ROWHWG template
- DUE October 31st (Wednesday) for reporting via ROWHWG

U.S. Fish and Wildlife Service Monarch Conservation Database											
* Indicates required field											
Site Name*	Lead Organization* (Either by name or anonymous reference)	Plans	Baseline Land Use*	Estimated Baseline Milkweed Density	Post Effort Land Use* (Only required IF land use will change as a result of activity)	Potential/Amended Milkweed Density	Acres* (or shapefile)	State*	County(s)* (or shapefile)	Activity*	Sub-Activity*
e.g., Habitat restoration	e.g., Rights of Way as Habitat Working Group	e.g., None	TIGER Local Roads	57.15	TIGER Local Roads	100	e.g., 240	IL	e.g., Fairfield; Clinton	Increase Milkweed to Enhance Habitat and Nectar Resources	Herbicide Treatment to Enhance
e.g., Living Snow Fences	e.g., XX State Department of Transportation	e.g., XX State Monarch Conservation Plan	TIGER Primary Roads and Ramps TIGER Local Roads TIGER Private Roads All TIGER Roads Inside Urban Areas HSIF Transmission Line Outside Urban Areas HSIF Transmission Line Inside Urban Areas TIGER Rails Outside Urban Areas TIGER Rails Inside Urban Areas HSIF Transmission Line Outside Urban Areas	3.09	All TIGER Roads Inside Urban Areas	0	e.g., derive from shapefile	WI	e.g., See Shapefile	Increase Milkweed and Blooming Nectar Plants to Enhance Habitat and Nectar Resources	Conservation Grazing

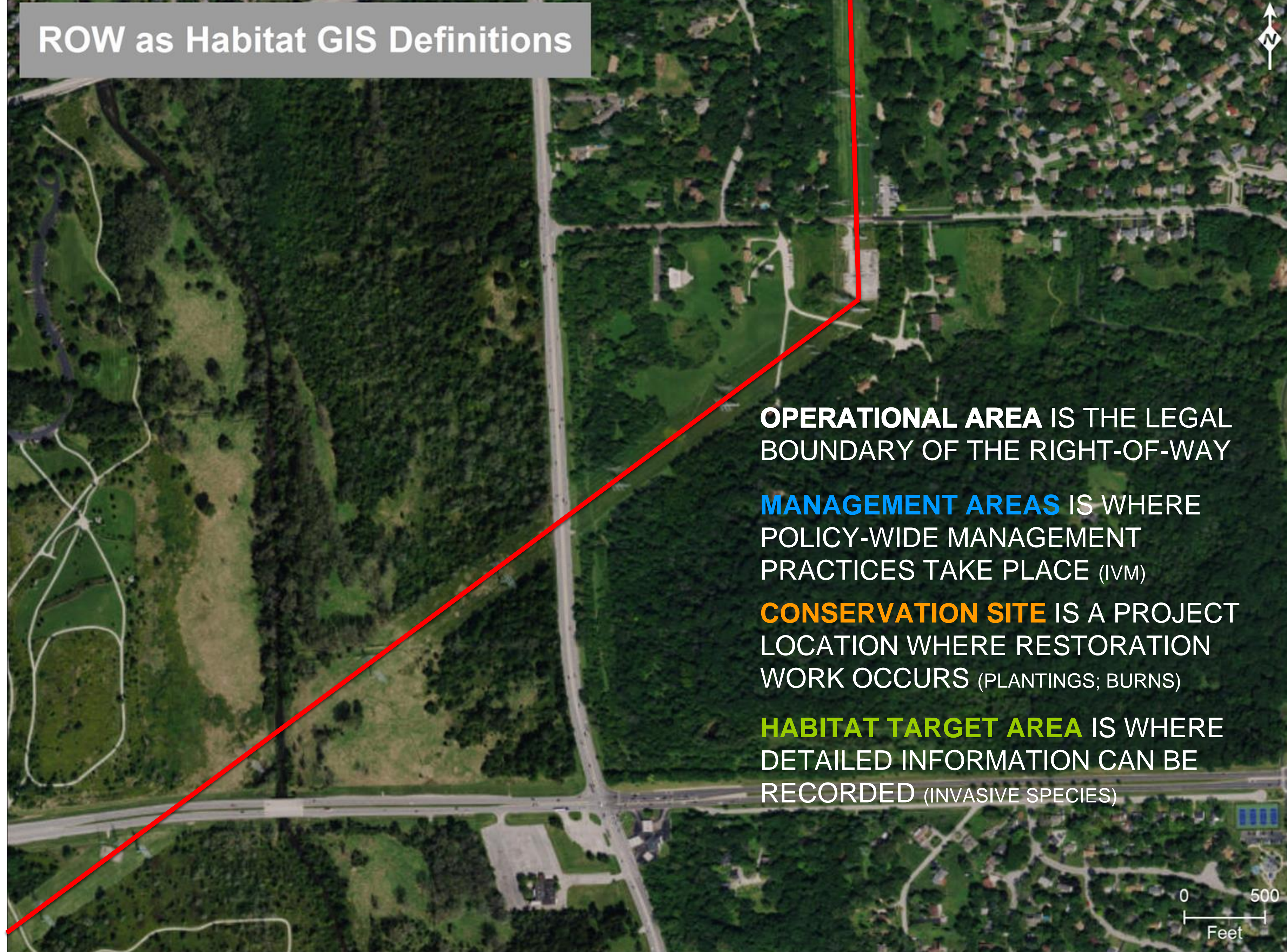
Anticipated Products & How it Will Work

- **Non-Spatial Web Interface for...**
 - Adding new organizations and user accounts
 - Managing access & collaborations
 - Reports on findings (e.g. CCAA, MCD)
- **Map interface for...**
 - Private organization map interface for direct spatial access/editing
 - Open access (public) dashboard
 - Import and conversion tools
 - Spatial analyses: land cover characterization & prioritization tools

System Design



ROW as Habitat GIS Definitions



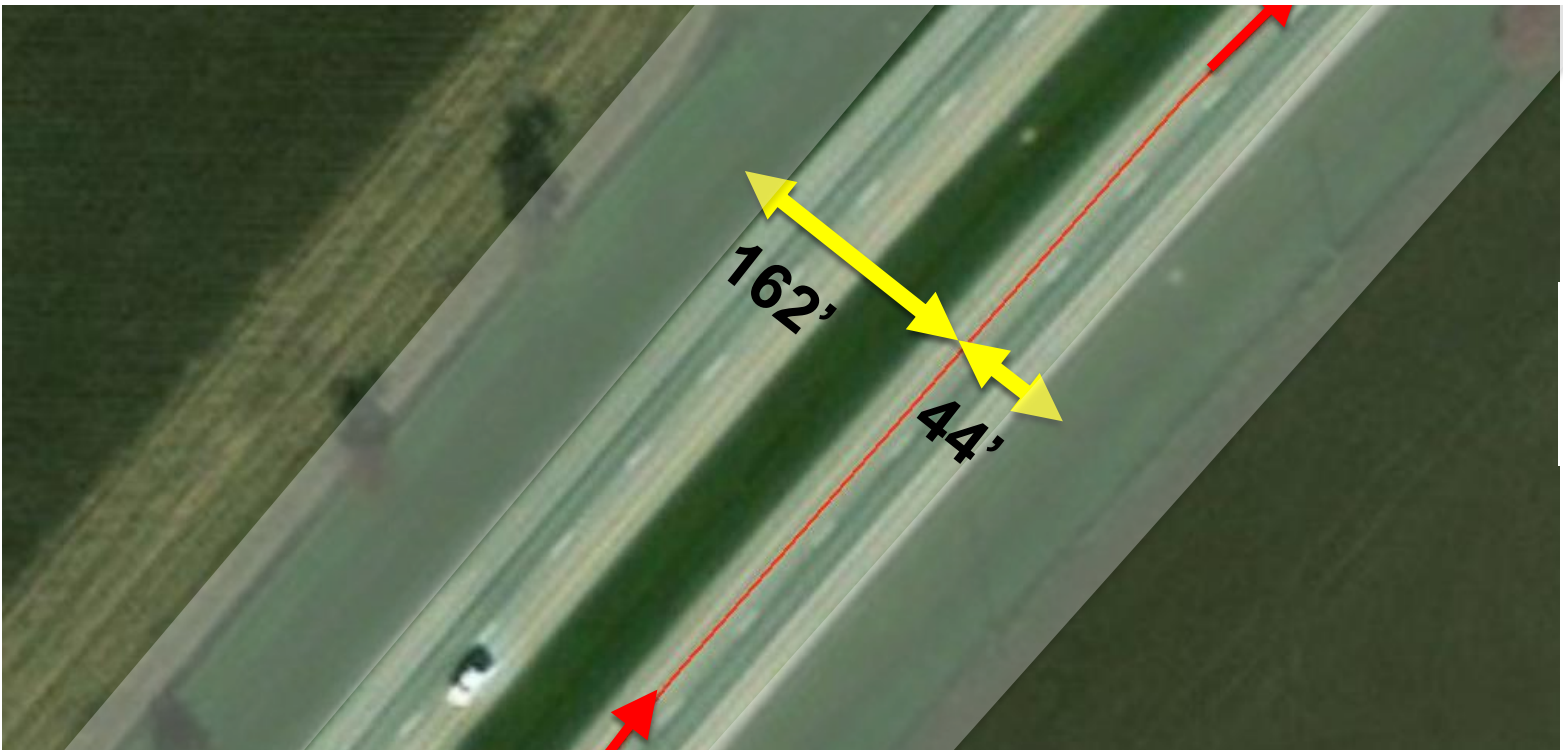
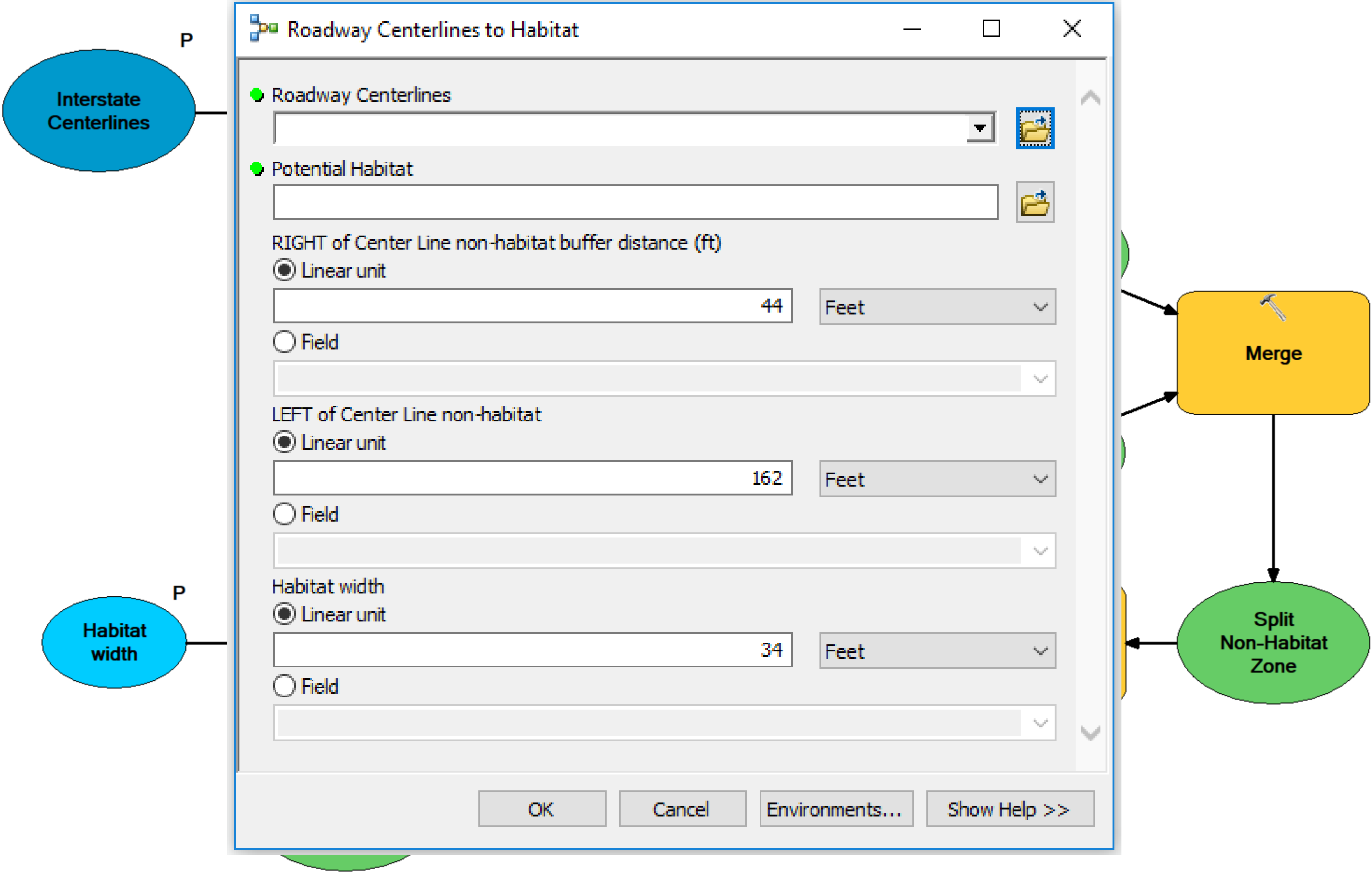
OPERATIONAL AREA IS THE LEGAL BOUNDARY OF THE RIGHT-OF-WAY

MANAGEMENT AREAS IS WHERE POLICY-WIDE MANAGEMENT PRACTICES TAKE PLACE (IVM)

CONSERVATION SITE IS A PROJECT LOCATION WHERE RESTORATION WORK OCCURS (PLANTINGS; BURNS)

HABITAT TARGET AREA IS WHERE DETAILED INFORMATION CAN BE RECORDED (INVASIVE SPECIES)

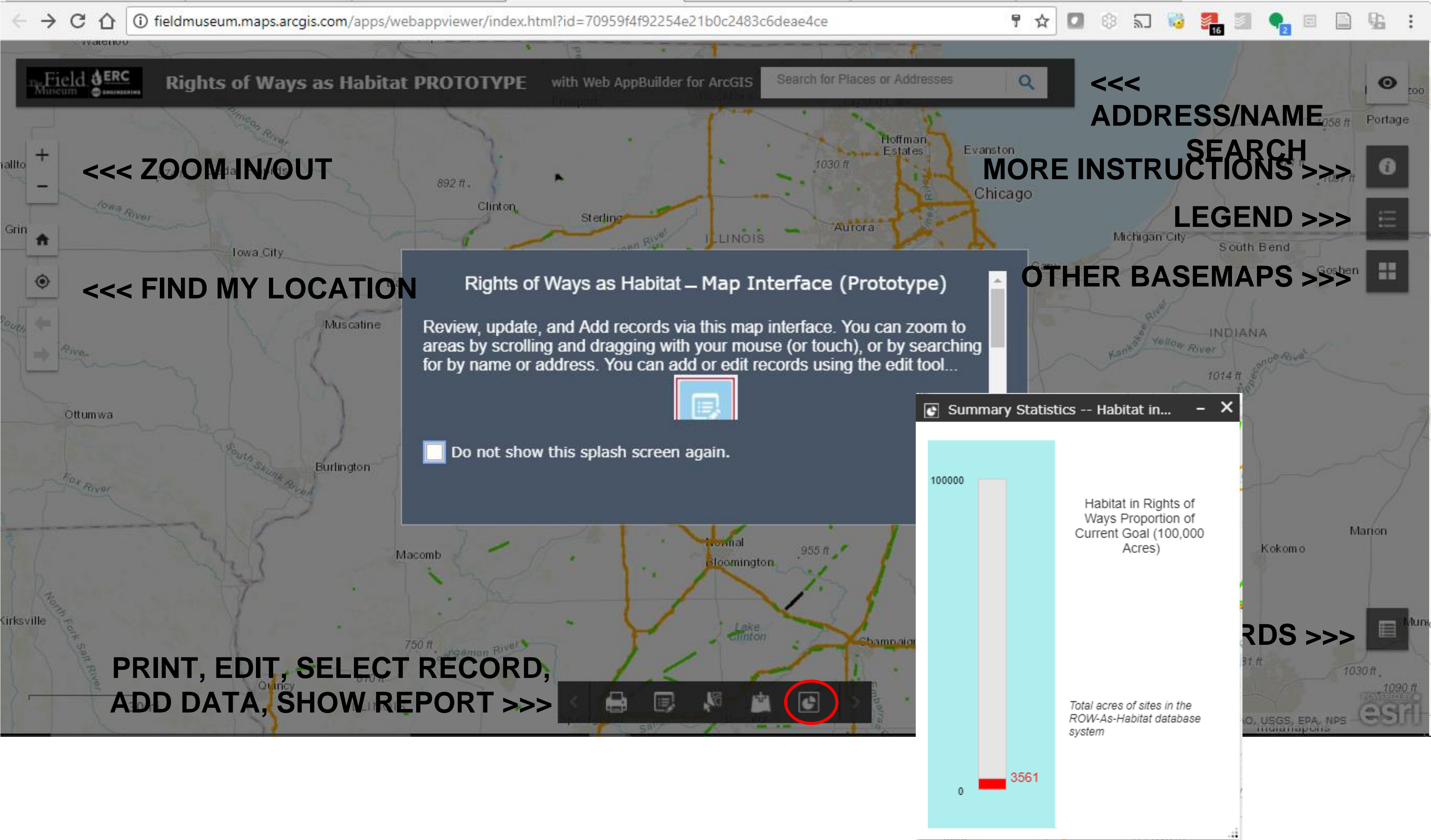
Conversion Tool (Centerlines to Potential Habitat)



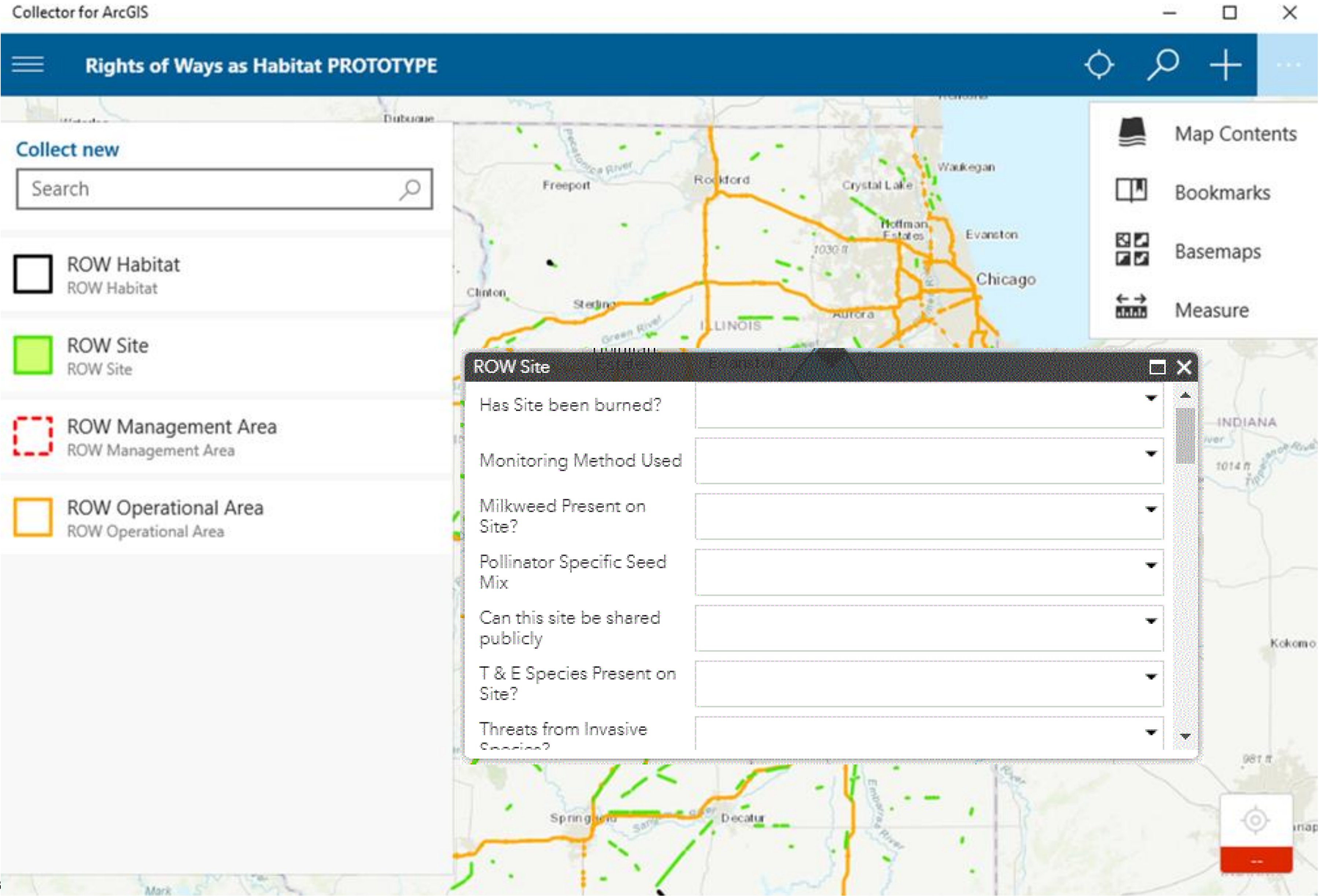
Midwest Power Grid by Voltage Classes



PRIVATE MAP INTERFACE WEBAPP (DESKTOP INTERFACE)



ESRI COLLECTOR (FIELD DATA COLLECTION)



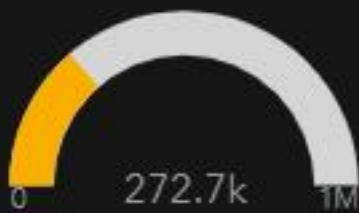
Public Map Interface (Operations Dashboard)

ROW HABITAT DATABASE

102
Participating
Organizations

Last update: a minute ago

Registered Acres



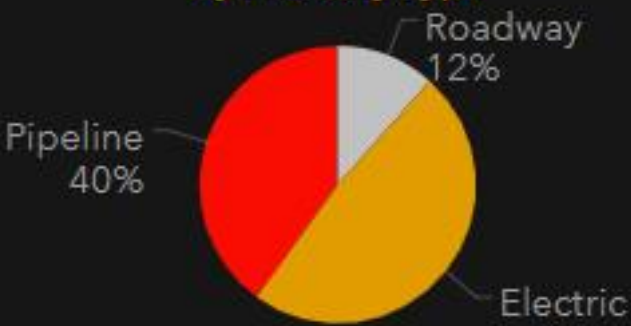
Registered acres compared to current goal.

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302.849k
Registered Miles
(all sectors)

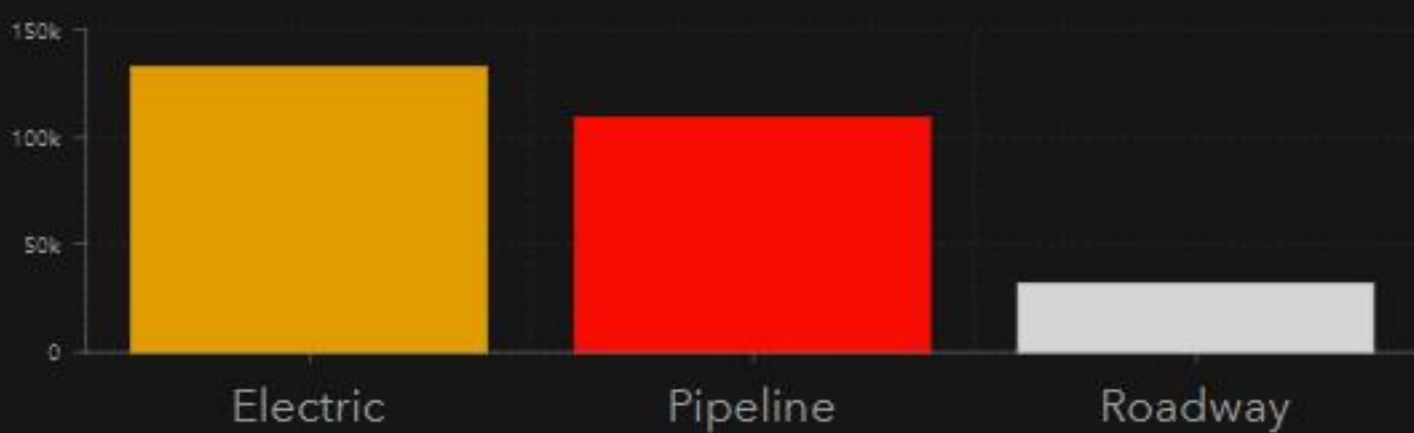
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Registered Habitat
by Industry Type



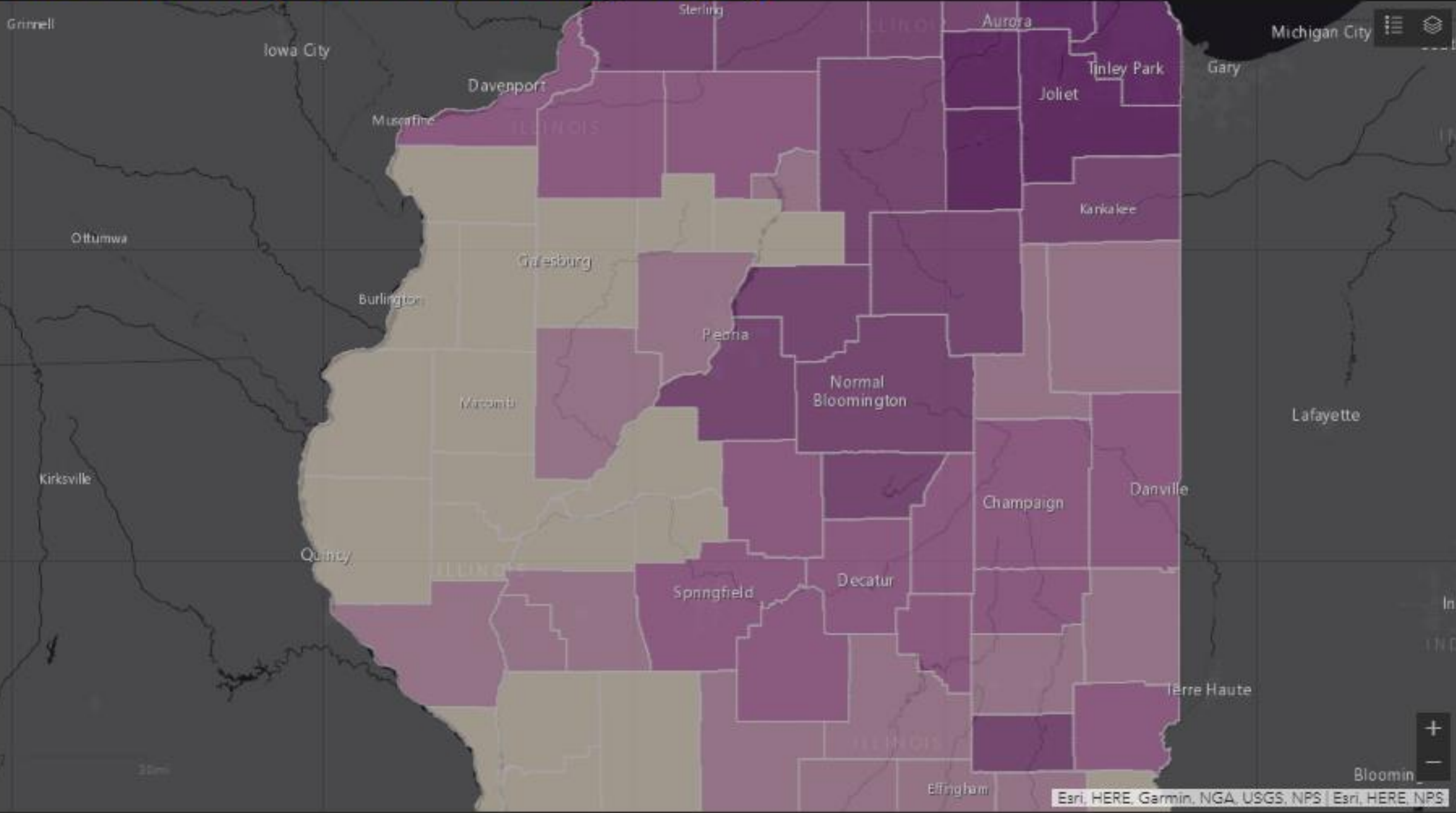
Roadway
12%
Electric
48%
Pipeline
40%

Last update: a minute ago

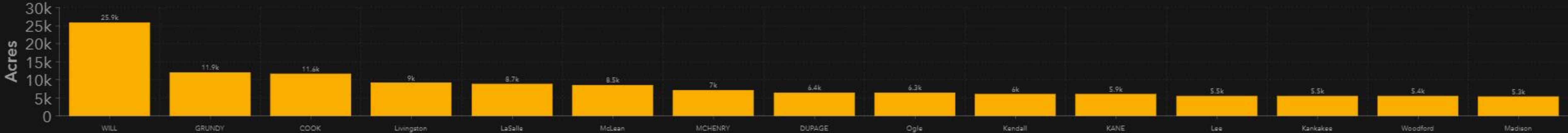
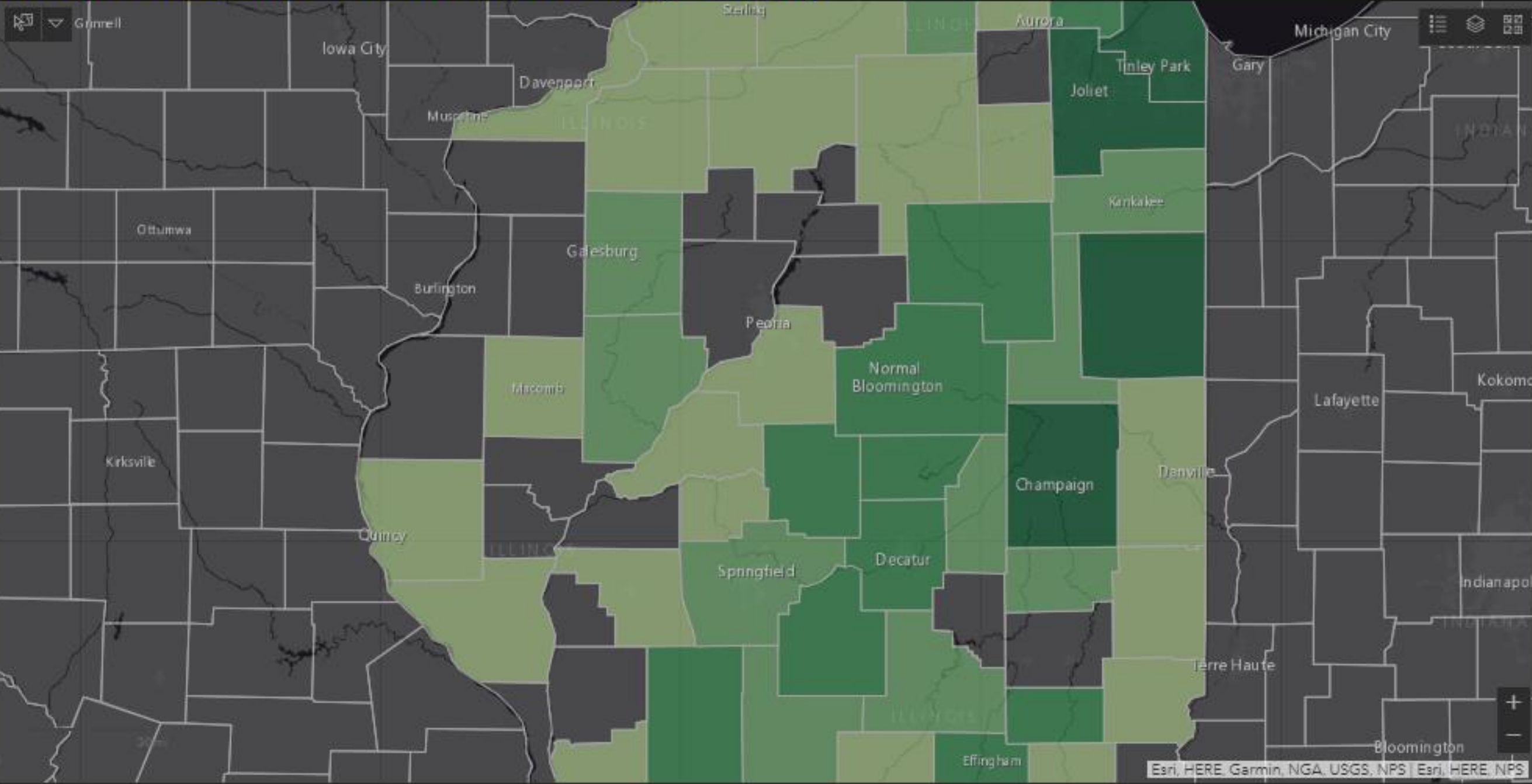


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Acres of Managed ROW Lands by County



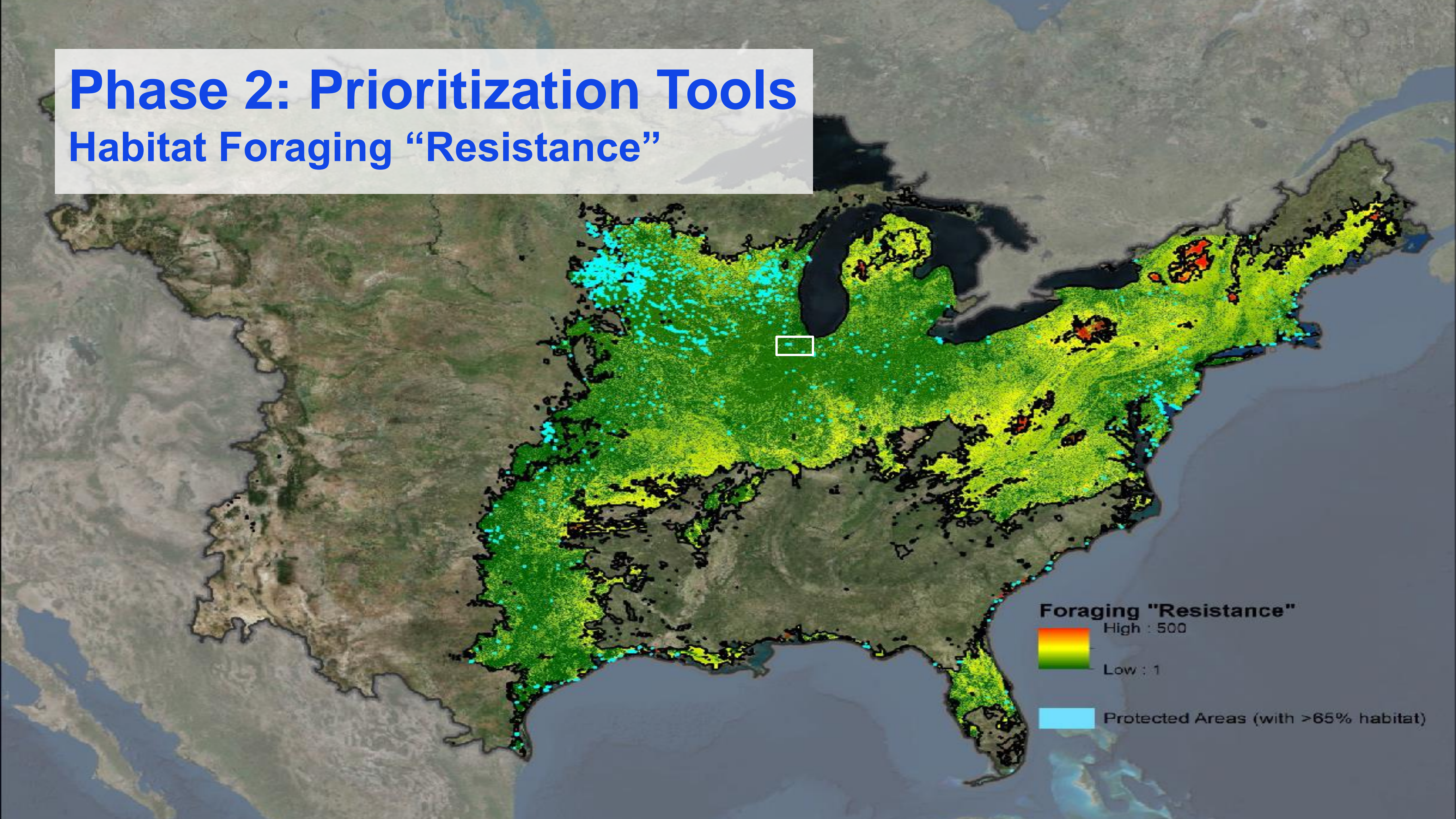
Habitat Acres in Conservation Sites by County

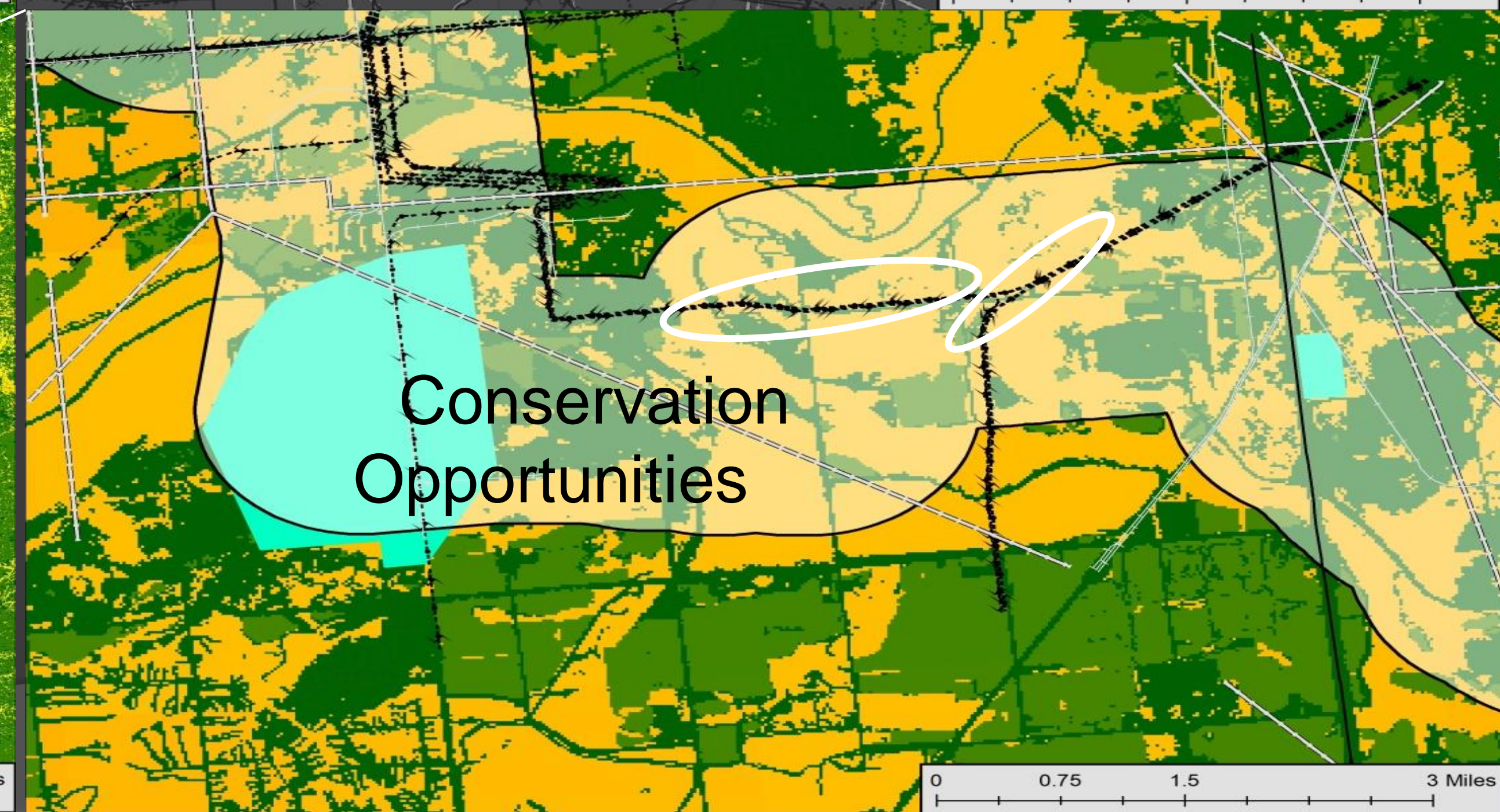
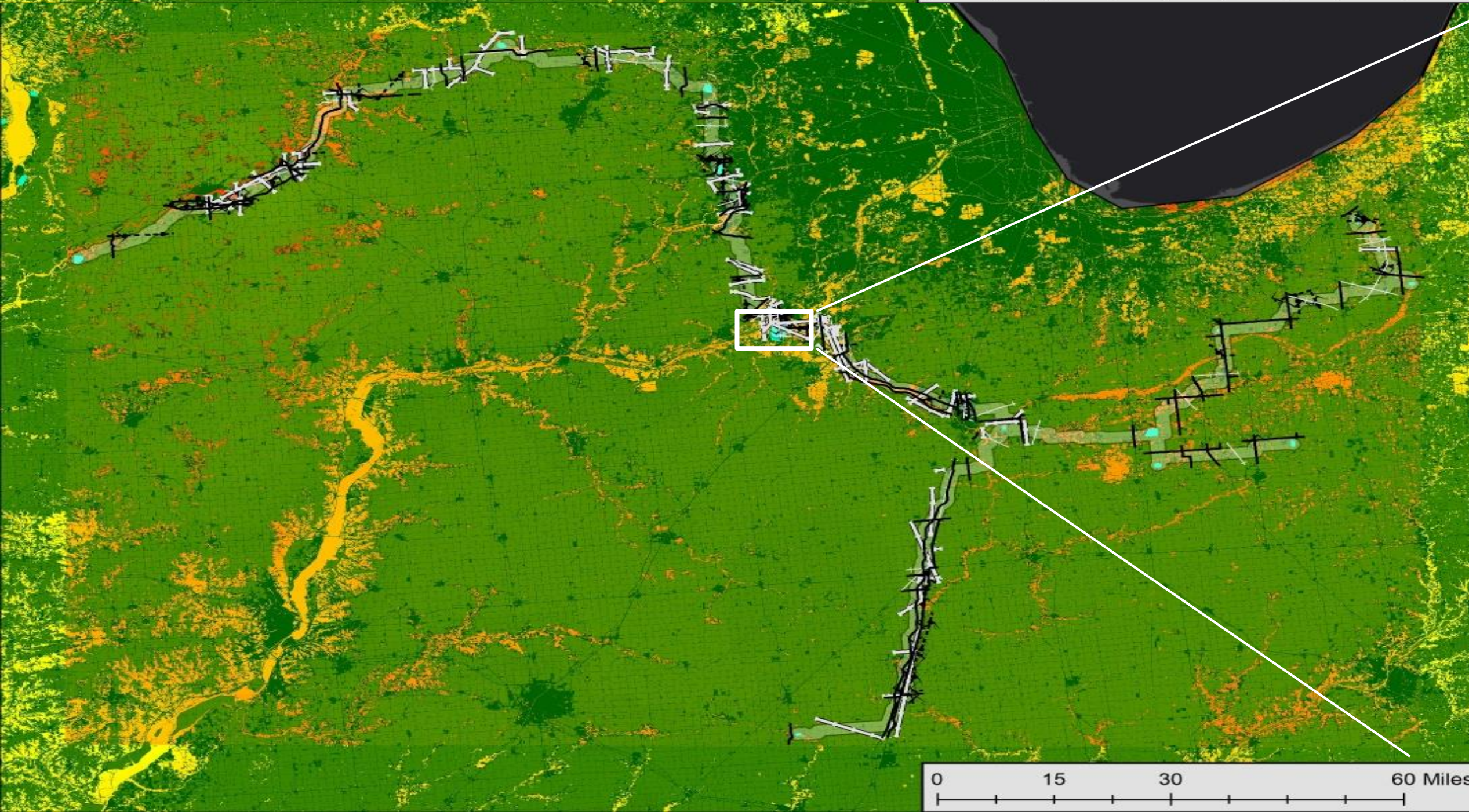
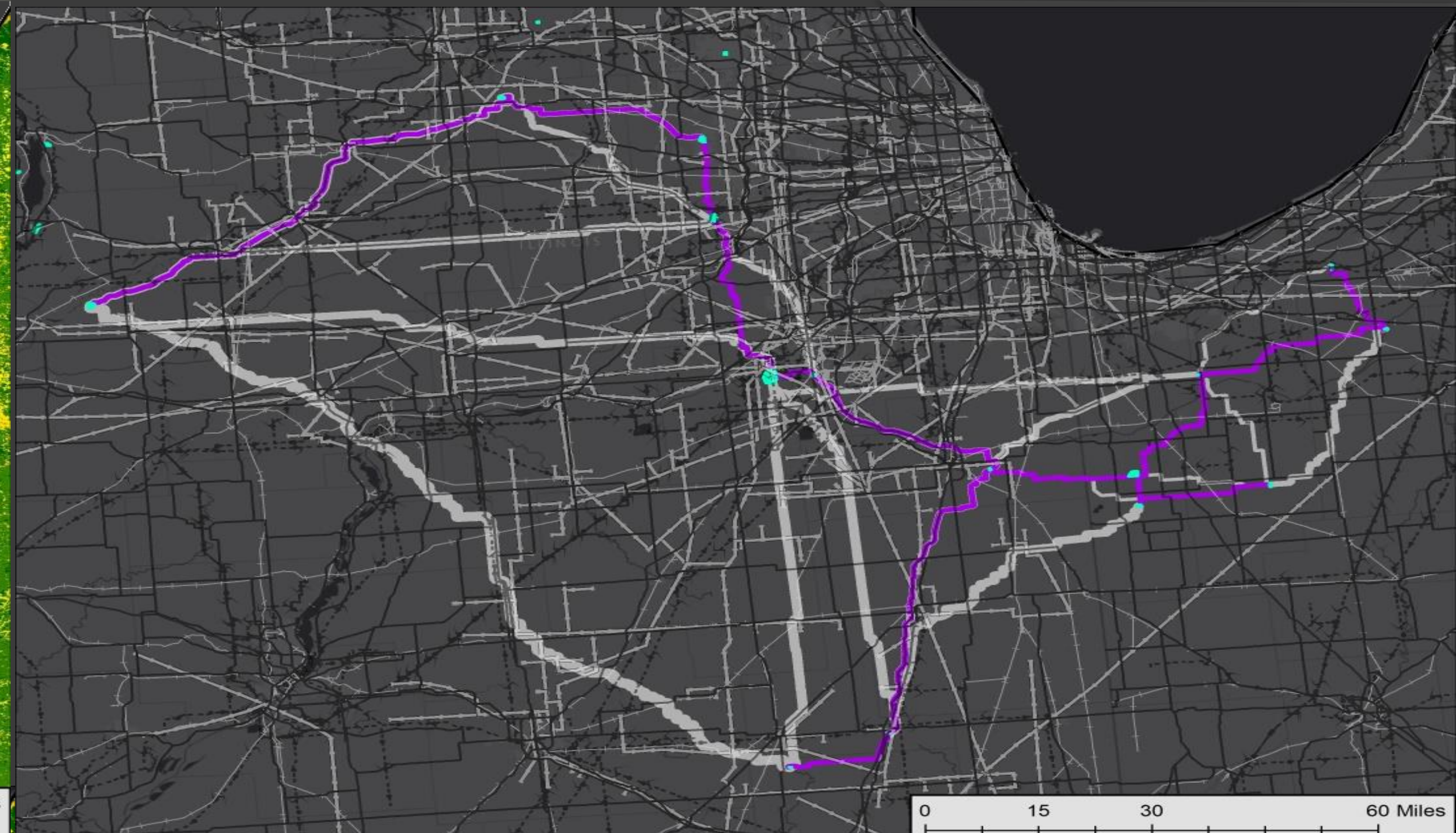
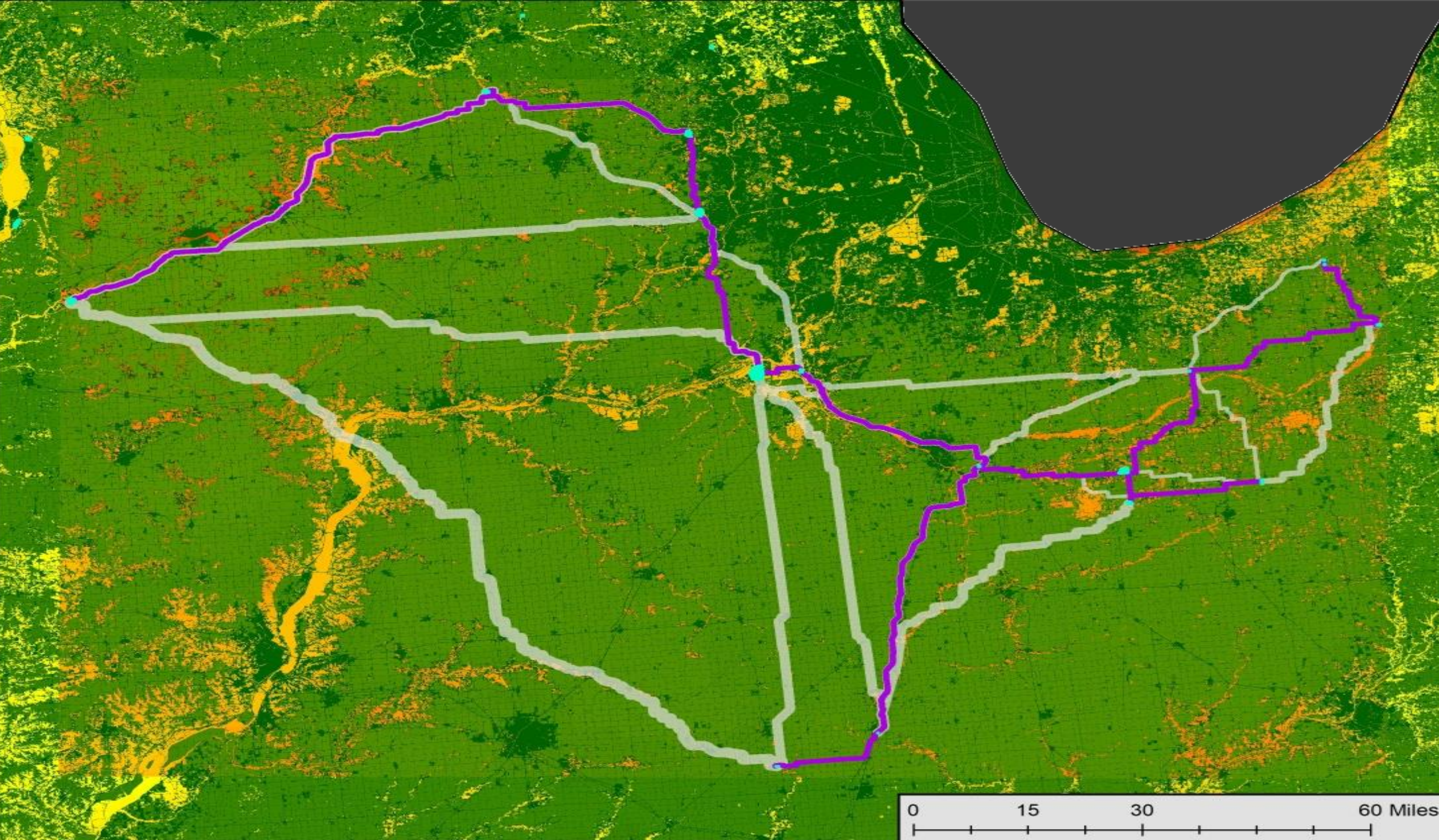


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Phase 2: Prioritization Tools

Habitat Foraging "Resistance"





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**FIE
MUSEUM
D.**

Success Spectrum

Failure	Minimum Success	Target Success	Epic Success
<ul style="list-style-type: none">•Limited participation from ROW orgs•Database is not utilized•Database is too cumbersome to maintain•No long-term data management strategy	<ul style="list-style-type: none">•Only regional participation from ROW orgs•Database serves as one-time data gathering exercise	<ul style="list-style-type: none">•Broad participation from ROW orgs across the US & Canada•Database is regularly updated by ROW orgs•Database is utilized to track progress towards targets•Compatible with other database systems•Database is useful communications tool•New partnerships emerge to restore habitat on the ground•Database promotes change/results/on-the-ground impacts	<ul style="list-style-type: none">•Database becomes industry standard for habitat tracking & strategic conservation planning•ROW orgs own data management•Database captures progress through time•Database drives additional monitoring and data collection•Database promotes participation in certification programs•Database helps change public perception of the value of ROW