



Photo Credit: Mark Rogovin

ROW Habitat Database

Rights of Way as Habitat
Working Group Meeting

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Outline

- **Database Overview and Status**
- **Setting Up an Account**
- **How to Use the Database**
 - **Data Capture**
 - **Data Import**
 - **Data Analysis**
 - **Data Sharing & Collaboration**
- **Next Steps**

Purpose of the Habitat Database

- **Central repository for tracking habitat and management activities**
- **Facilitate conservation collaborations and partnerships**
- **Communicating with stakeholders and the public**
- **Reporting mechanism to support CCAA compliance**
- **Data collection system with ready to use field applications**

Status of the Database

- **Database is Operational**
 - **Customized secure access to a shared database**
 - **Data Sharing to Facilitate Collaborations**
 - **Field Data Collection Tools (e.g. Survey123 and Collector)**
- **In Development:**
 - **Informational Website with Database Materials/Links**
 - **Public and Private Dashboards for Reporting**
 - **Geoprocessing Tools for Import and Analysis**
- **Currently Supports 10 Enrolled Organizations**
- **Ready for More Organizations to Join!**

How to Set Up an Account

- 1. Fill out the intake questionnaire**
 - ▶ <https://tinyurl.com/ROW-intake>
- 2. Field Museum “deploys” your organization**
 - ▶ **Manager and fieldworker groups are created**
 - ▶ **Maps and field apps are enabled**
 - ▶ **User accounts established**
- 3. Meet with Field Museum**
 - ▶ **Review organization needs**
 - ▶ **Demonstrate how to use database**

Intake Questionnaire

Account Setup

- Organization Name
- Account Admin
- Data Manager

ROW Database Intake Questionnaire

Welcome! We are gathering information for setting up your initial data access to the ROW Geospatial Database System. This is not a general survey.

1. Consolidated organization or subsidiary name. *

Provide a short unique name or code to associate with all records in the account (maximum field size is 15 characters, minimum is 4, no spaces or numbers). NOTE: Large organizations should consider registering each participating daughter company or sub-division separately (especially if your organization maintains separate data or field management teams).

Characters used: 0 (minimum 4).
Characters used: 0 out of 15.

2. Your organization or subsidiary's full name for reporting out via websites and reports. *

This is also the name other organizations will see when setting up their collaborations.

3. Parent organization.

Only relevant if this organization or sub-division has a parent organization.

4. Add your organization's logo.

This will be used primarily for ArcGIS Online permission groups and reports (min resolution 400 x 400 pixels; max filesize 2 MB).

5. Database Account Administrator *

Primary contact for account administration decisions. This person has the ability to authorize new users and can set up and modify collaborations with other organizations. This user will be assigned an administrative account.

First Name

Last Name

Email Address

Phone Number

6. Data Manager *

Primary contact that handles data management. Like the Account Administrator, this person has full access to all data and geospatial tools, and has the ability to invite existing ArcGIS Online users, but cannot add to, or edit, collaborations with other organizations. One person can serve as both Database Account Administrator and Data Manager. This user will be assigned a new account in the ROW ArcGIS Online System.

First Name

Last Name

Email Address

Phone Number

Intake Questionnaire

Account Setup

- Organization Name
- Account Admin
- Data Manager
- Data Collection
- Field Staff

7. Does your organization plan to collect pollinator habitat data this year? *

- Yes
 No

8. How do you plan to collect field data for input in the database? *

- Using your own field data collection system
 Using the Survey123 and/or Collector for ArcGIS applications provided by the ROWHWG database
 Using a combination of your own field data collection system and the applications provided by the ROWHWG database
 Unknown

Will your organization need a new generic ArcGIS Online account for your field staff to share? *

Please indicate if a new ArcGIS Online user account is needed for collecting data using the Survey123 and/or Collector for ArcGIS applications provided by the ROWHWG database. This is intended for organizations that do not have an ArcGIS Online organizational account. Note: there are some limitations with concurrent edits and updates of spatial data.

- Yes
 No

Please list field staff and their organizational ArcGIS Online account information

If you are planning to use the ROWHWG's Survey123 and Collector for ArcGIS field applications for data collection and your field staff already have ArcGIS Online organizational accounts, please list each user's full name, email address, and ArcGIS Online account information so that they can be invited to join your organization's group folder. If your field staff share an organizational account, please list the contact information associated with the account. Additional users can be invited to your organization by the Data Manager (above) at a later date.

	First Name	Last Name	Email Address	Organizational ArcGIS Online Username
Contact 1 (optional)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Contact 2 (optional)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Contact 3 (optional)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Contact 4 (optional)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Contact 5 (optional)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Contact 6 (optional)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Contact 7 (optional)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Intake Questionnaire

Account Setup

- Organization Name
- Account Admin
- Data Manager
- Data Collection
- Field Staff
- Data Sharing

9. For each of your organization's data layers, please select what level of detail your organization will share with **ALL** of the organizations in the database (including other ROW organizations, contractors/consultants, non-regulatory partners). In subsequent questions, you will have the option to specify individual organizations that your organization will share more detailed data with. *

Layers: **Centerlines** are polylines that indicate the location of rights-of-way features. **Management Areas** are where policy-level land management decisions (e.g., IVM) may exist. **Sites** are areas where direct conservation actions can be taken that are often more focused than system-wide land management practices. **Pollinator Scorecard** are plot locations where surveys are conducted to assess pollinator habitat.

Data Sharing: **None** means that you will not be sharing any of the geographic or attribute data for the selected layer. This is the default for Centerlines. **Basic** means that you will share the geographic boundaries and limited attribute data for the selected layer. This is the default for Management Areas, Sites, and Pollinator Scorecard. **Detailed** means that you will share the geographic boundaries and detailed attribute data for the selected layer.

Centerlines	Management Areas	Sites	Pollinator Scorecard
<input checked="" type="radio"/> None	<input type="radio"/> None	<input type="radio"/> None	<input type="radio"/> None
<input type="radio"/> Basic	<input checked="" type="radio"/> Basic	<input checked="" type="radio"/> Basic	<input checked="" type="radio"/> Basic
	<input type="radio"/> Detailed	<input type="radio"/> Detailed	<input type="radio"/> Detailed

For **Centerlines**, please specify which organizations, if any, your organization will share a Basic level of data with.

Select Organization	Select Sharing Level
<input type="text" value="-- Please Select --"/>	<input type="radio"/> Basic
<input type="button" value="Add Another"/>	

For **Management Areas**, if None was selected in Question 9, please specify which organizations, if any, your organization will share a Basic or Detailed level of data with. If Basic was selected in Question 9, please specify which organizations, if any, your organization will share a Detailed level of data with.

Select Organization Name	Select Sharing Level
<input type="text" value="-- Please Select --"/>	<input type="radio"/> Basic <input type="radio"/> Detailed
<ul style="list-style-type: none"> -- Please Select -- Ameren ATC ComEd Duke Energy Idaho DOT Illinois DOT Illinois Tollway NIPSCO Wisconsin DOT 	

For **Sites**, if None was selected in Question 9, please specify which organizations, if any, your organization will share a Basic or Detailed level of data with. If Basic was selected in Question 9, please specify which organizations, if any, your organization will share a Detailed level of data with.

Deployed Organization Account

The screenshot shows the ArcGIS Groups web interface. The browser address bar displays the URL: <https://rowhwg.maps.arcgis.com/home/groups.html?sortOrder=asc&sortField=title>. The navigation menu includes Home, Gallery, Map, Scene, Groups, Content, and Organization. The 'Groups' section is active, with sub-tabs for My Groups, Featured Groups, and My Organization's Groups. A 'Create group' button is visible. A search bar for 'My Groups' is present. On the left, there are filter options: 'Only show groups with new membership requests' (toggle off), 'Owner' (Owned by Me, Owned by Others), and 'Date Created' (Today, Yesterday, Last 7 Days, Last 30 Days, Custom Range...). The main content area shows 1 - 3 of 3 groups:

- DEMO Fieldwork Group**
Owner: ROW_Admin
Created: Jul 15, 2019 | Last Updated: Jul 19, 2019 | Viewable by: Group Members
Demonstration Organization
- ERC Fieldwork Group**
Owner: ROW_Admin
Created: Jul 21, 2019 | Last Updated: Jul 21, 2019 | Viewable by: Group Members
Energy Resource Center
- ERC Management Group**
Owner: ROW_Admin
Created: Jul 21, 2019 | Last Updated: Jul 21, 2019 | Viewable by: Group Members
Energy Resource Center

Permission Groups

- Data Managers
- Fieldworkers

Deployed Organization Account

DEMO Fieldwork Group 

Overview | Content | Members | Settings

 Edit Thumbnail



Demonstration Organization
owned by ROW_Admin

 Edit

Invite users

Share

Membership Requests 0

Description

This group contains maps and tools for DEMO's fieldworker

 Edit

Details

Created: July 15, 2019

Viewable by: **Only group members**

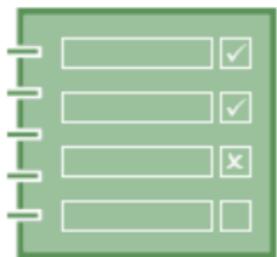
Contributors: **Only group owner and managers**

Members list: **All members**

 17  5

 View All Group Content

Recently added content



DEMO Pollinator Scorecard-...



REST_Org_Data



REST_Pollinator_Scorecard



Sites and Management Areas

Owner

 Change Owner

 ROW_Admin

Tags

row, demo

 Edit

Data Capture: Using the Schema

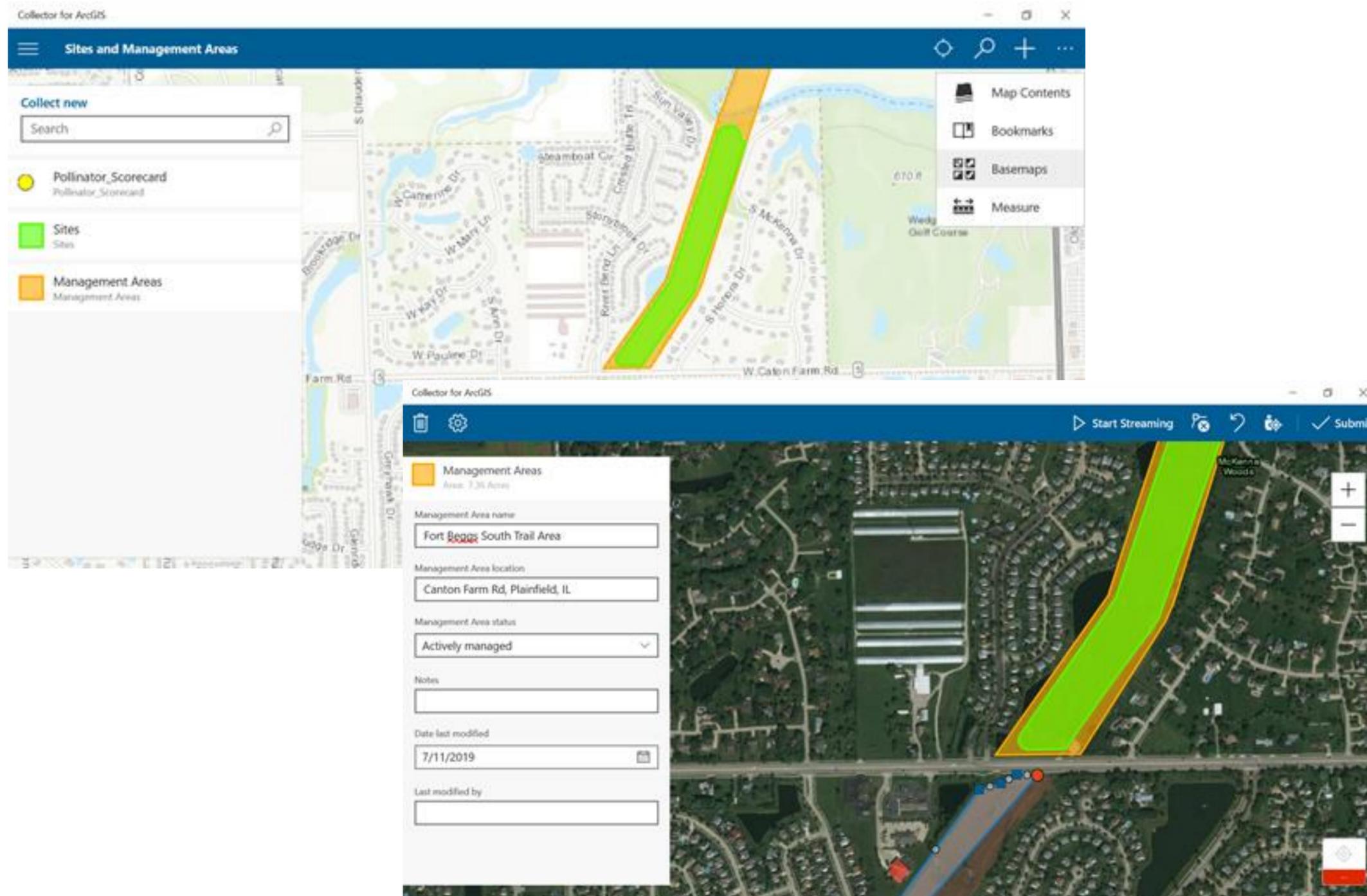
Excel Schema Spreadsheet

	A	B	C	D	E	F	G	H
1	Feature Class Name	Site						
2	Feature Class Alias	Site	Auto	Key	Required	Recommended for Field Use		
3								
4	Field Name	OBJECTID	SHAPE	Org_ID	Site_ID	SiteName	Location	Status
5	Field Alias	OBJECTID	SHAPE	ROW Organization ID	Site ID	Site name	Site location	Site status
6								
7	Notes			Organization's short name, which will be provided to the organization based on the ROW Intake Questionnaire	For organization's use to uniquely identify Site	For organization's use; e.g., project name, general name of project location	Description of Site location; e.g., mile marker, structure ID	Is Site actively managed for habitat, not active habitat management this an old area been replaced by boundary (archi
8								
9	Related Table using key							
10	Related FC							
11								
12	Data Type	Object ID	Geometry	Text	Text	Text	Text	Text
13	Length			20	50	100	255	
14	Required			Yes	No	No	No	Yes
15	Domain			No	No	No	No	Yes
16	Domain Name							Status
17								
18	Domain Values							Actively managed
19								Not actively managed
20								Proposed area
21								Archived area
22								
23								

File Geodatabase Template

- ROWHWG_Database.gdb
 - Centerline
 - Management_Area_Conservation_Measures
 - ManagementArea
 - MgmtArea_ConservationMeasures
 - PollinatorScorecard
 - Site
 - Site_Conservation_Measures
 - Site_ConservationMeasures

Data Capture: Collector for ArcGIS



Fieldworkers

- Create/View Site Boundaries
- Create/View Management Area Boundaries

Data Capture: Survey123

Survey123 for ArcGIS

Pollinator Scorecard

Survey Tier *
Please select the assessment tier you are using. The selected tier will determine what data fields are visible/required

Tier 1: Basic
 Tier 2: Qualitative
 Tier 3: Detailed

Plot Information
Collect the GPS coordinates of your plot *

Start Time *
The start time for plot assessment

Plot Number *
A unique identifier for the plot

Plot Location *
The coordinates of the plot and/or sufficient information to re-identify the plot in subsequent visits

Plot Description *
A general description of the plot, including the type of right-of-way it is located in, the

✓

Survey123 for ArcGIS

Pollinator Scorecard

Habitat Attributes

Potentially Flowering Nectar Plant Cover *
Estimate the percent cover of potentially flowering nectar plants (e.g., wildflowers and shrubs), whether flowering or not

0% (0 Points)
 1-5% (1 Point)
 6-10% (7 Points)
 11-25% (14 Points)
 26-50% (21 Points)
 51-75% (28 Points)
 76-100% (35 Points)

Additional Habitat Resources *
Check any habitat resources that are present. Each selection is worth 2 points.

Native bunch grasses
 Brush piles
 Undisturbed thatch
 Dead wood/snags
 Rock piles
 Basking areas
 Plants with hollow pithy stems
 Larval host plants (e.g., milkweed)

Notes on Habitat Resources

✓

Survey123 for ArcGIS

Pollinator Scorecard

Pollinator Score

Total Score:
0

Habitat Quality Rating:
Improvement Opportunity

Management

Threats
Check for any threats identified on or adjacent to the plot

Lack of direction or objectives for managing habitat
 Negative perception of habitat
 Woody encroachment
 Invasive species
 Habitat conversion (e.g., habitat loss, land disturbance)
 Frequent grazing, mowing or herbicide use during the growing season
 Adjacent land use encroachment (e.g., unauthorized land uses)
 Adjacent land use impacts
 Other (describe)

Opportunities
Check for any opportunities identified on or adjacent to the plot

✓

Fieldworkers

- Record habitat monitoring information (Pollinator Scorecard)

DATA CAPTURE

Survey123 Results from Morning Demo

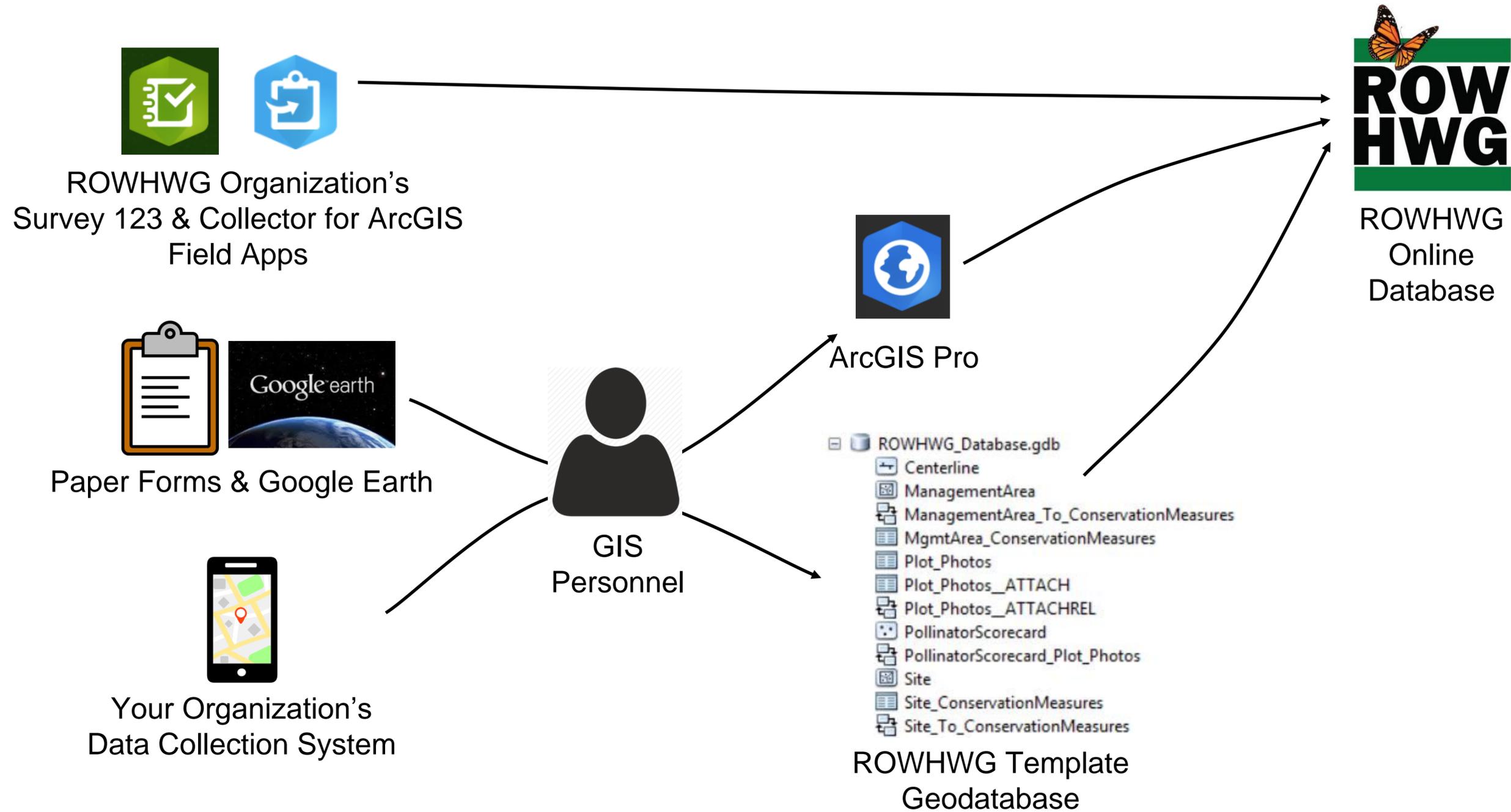


Data Import Options

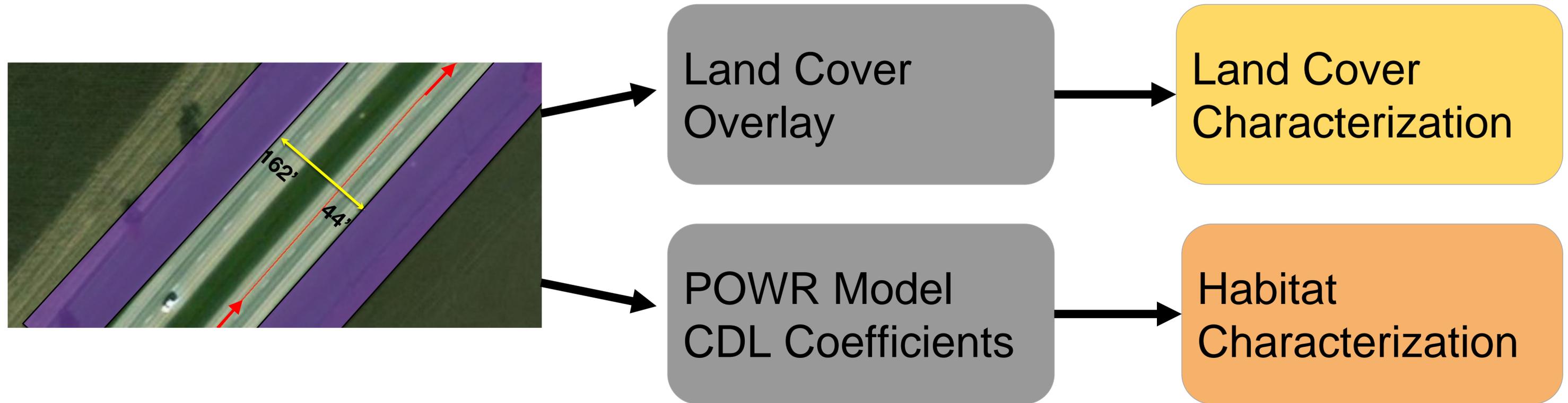
Data imports are possible using any of three methods...

1. Database template using data loader tool
2. ArcGIS Pro data import directly into the database
3. Online web interface (WebApp Builder in development)

Data Import Options

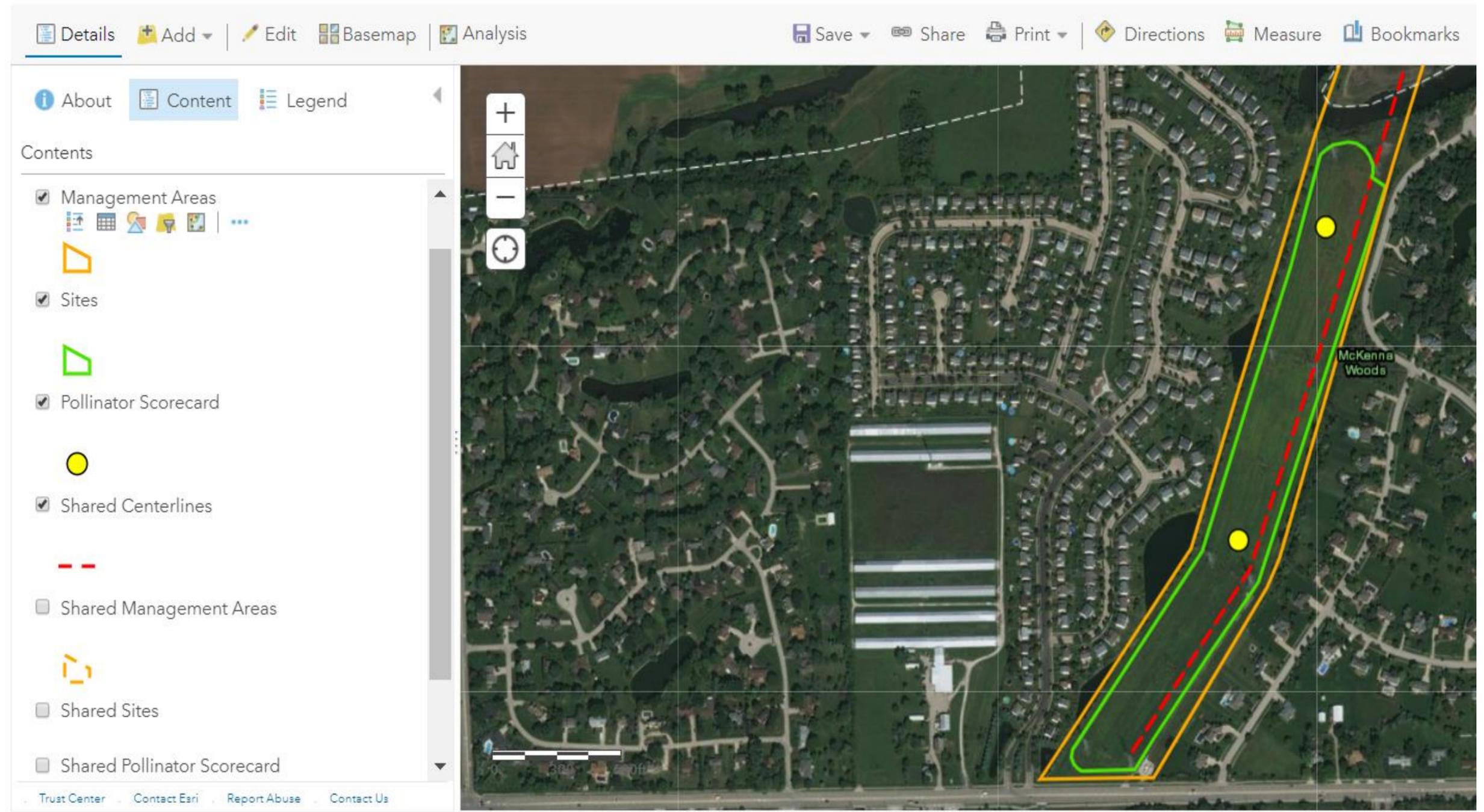


Data Analysis: Conservation Potential

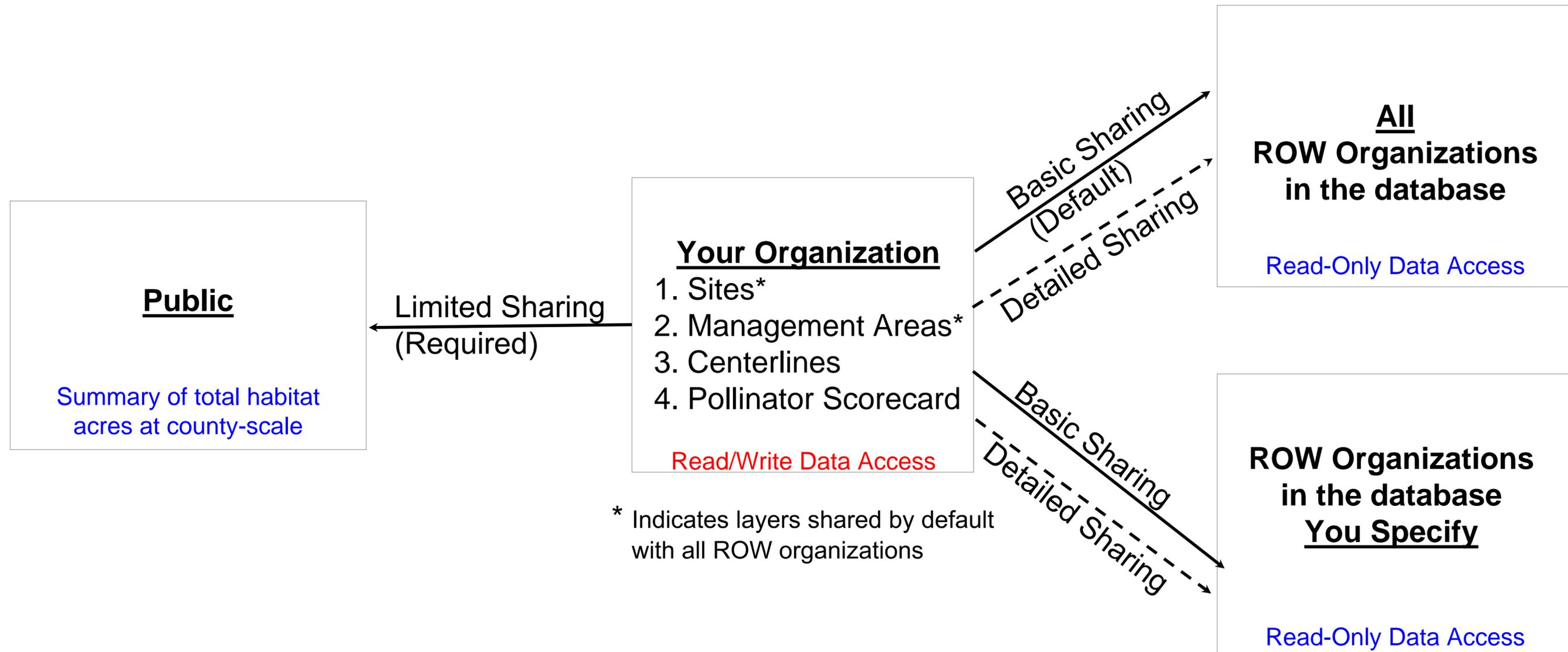


Data Sharing & Collaboration

- Identify where ROW's overlap with conservation potential
- Identify connections between existing habitat areas



Data Sharing Options



Public Dashboard

102
Participating
Organizations

Last update: a minute ago

Registered Acres



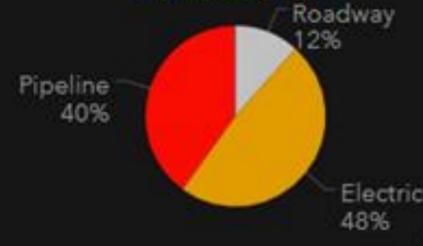
Registered acres compared to current goal.

Last update: a minute ago

302.849k
Registered Miles
(all sectors)

Last update: a minute ago

Registered Habitat
by Industry Type

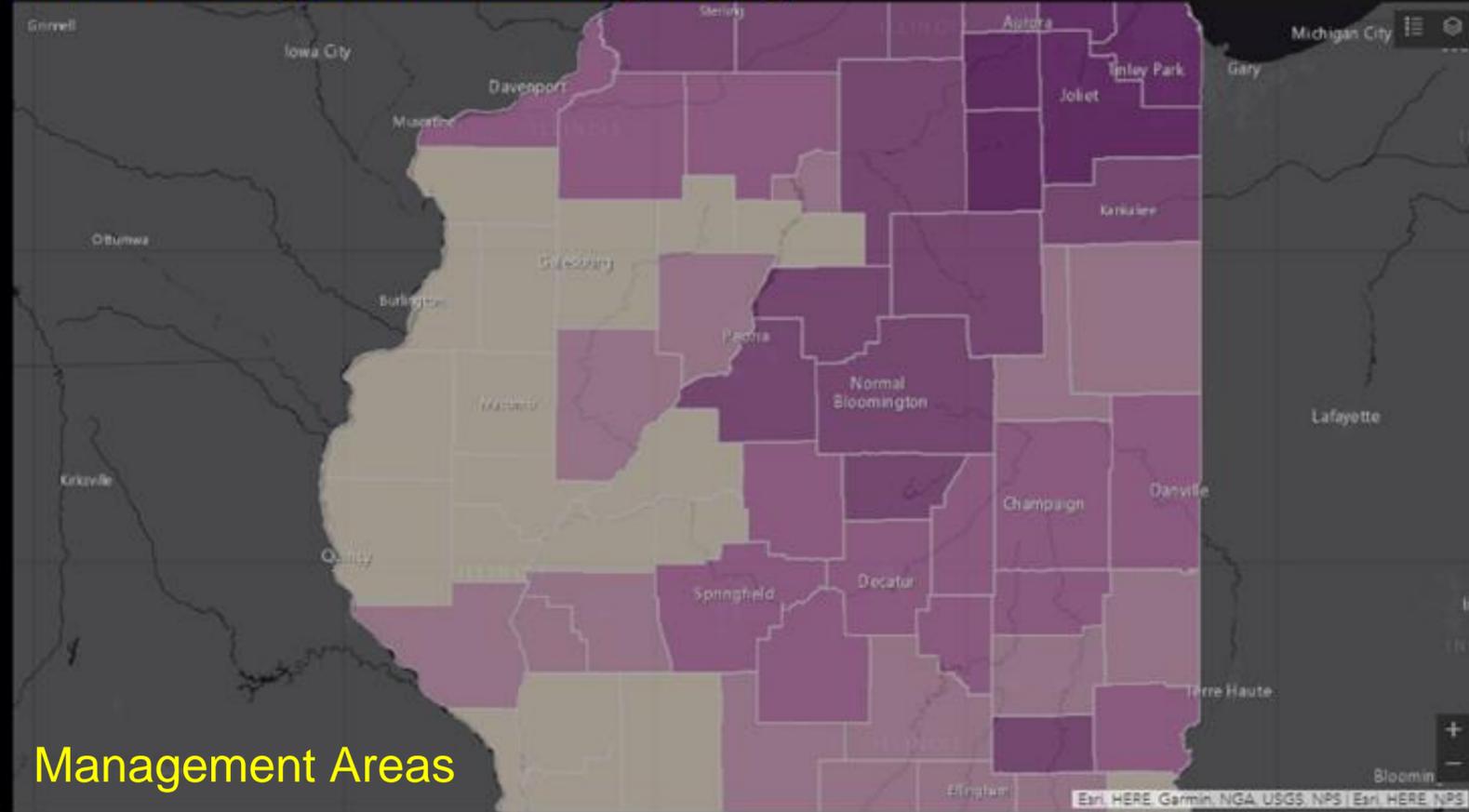


Last update: a minute ago

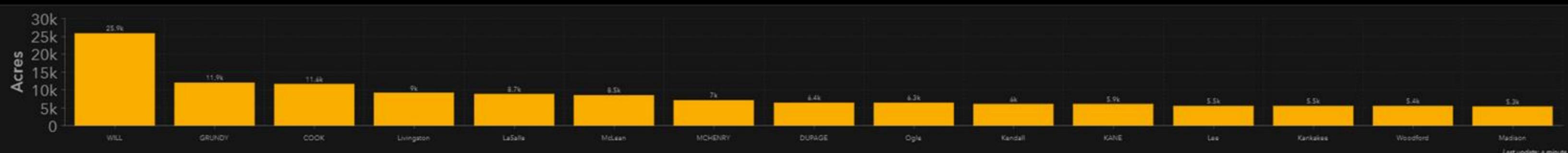
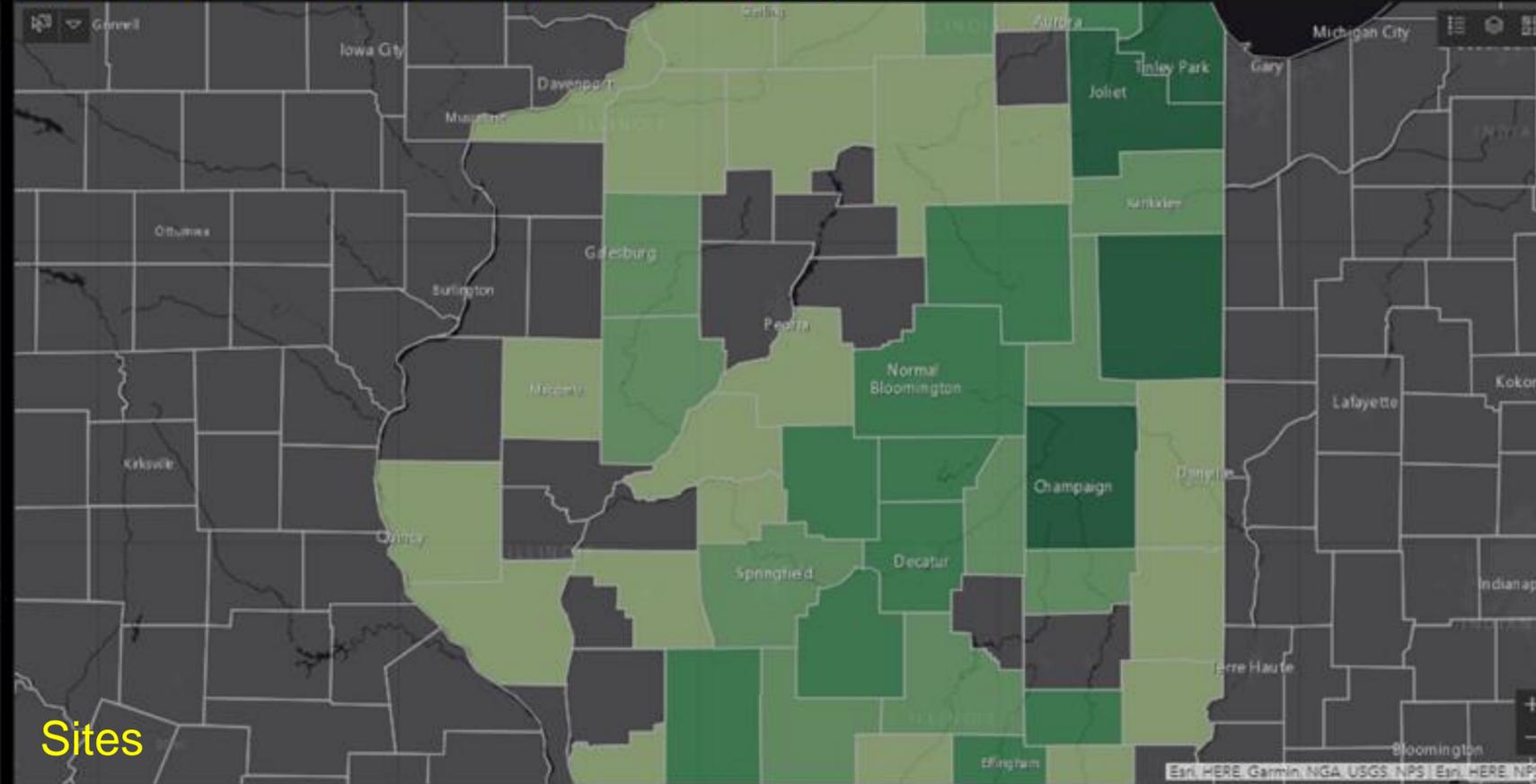


Last update: a minute ago

Acres of Managed ROW Lands by County



Habitat Acres in Conservation Sites by County



Last update: a minute ago

Next Steps

- **For Us...**

- Informational Website
- Public and Private Dashboards
- Geoprocessing Tools

- **For You...**

- If interested in participating now...

- ▶ Fill out the intake questionnaire: <https://tinyurl.com/ROW-intake>

- Or for questions contact: **Mark Johnston** mjohnston@fieldmuseum.org

& Karen Klinger kklinger@fieldmuseum.org

- If already participating... submit or upload your data



**FIE
LD.**
MUSEUM