

IMAGIN Webinar Series

The State Land Bank Authority and GIS: Using Location Intelligence to Recycle Land to Productive Use

Ryan McNeil- GIS Data Analyst

Jennifer Quinlivan- Property Analyst

Brian Woodin- Property Analyst

18 February 2021

Presentation Overview

- ▶ Intro to the State Land Bank Authority (SLBA)
- ▶ Data collection and creation with UAS
- ▶ Candidate solar parcel study
- ▶ Canadian Lakes Case Study
- ▶ Questions

Labor and Economic Opportunity (LEO)

Michigan.gov

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The Department of

Labor and Economic Opportunity

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INSIDE LEO v

COVID-19 WORKPLACE SAFETY

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STATE LAND BANK AUTHORITY



MICHIGAN REHABILITATION SERVICES



UNEMPLOYMENT INSURANCE AGENCY



POSTSECONDARY SCHOOLS

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MICHIGAN CAREER & TECHNICAL INSTITUTE



MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY

WORKFORCE DEVELOPMENT



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SERVICES FOR BLIND PERSONS



MICHIGAN ECONOMIC DEVELOPMENT CORPORATION

OFFICE OF GLOBAL MICHIGAN

WORKERS' DISABILITY COMPENSATION AGENCY



BUREAU OF EMPLOYMENT RELATIONS - WAGE & HOUR DIVISION

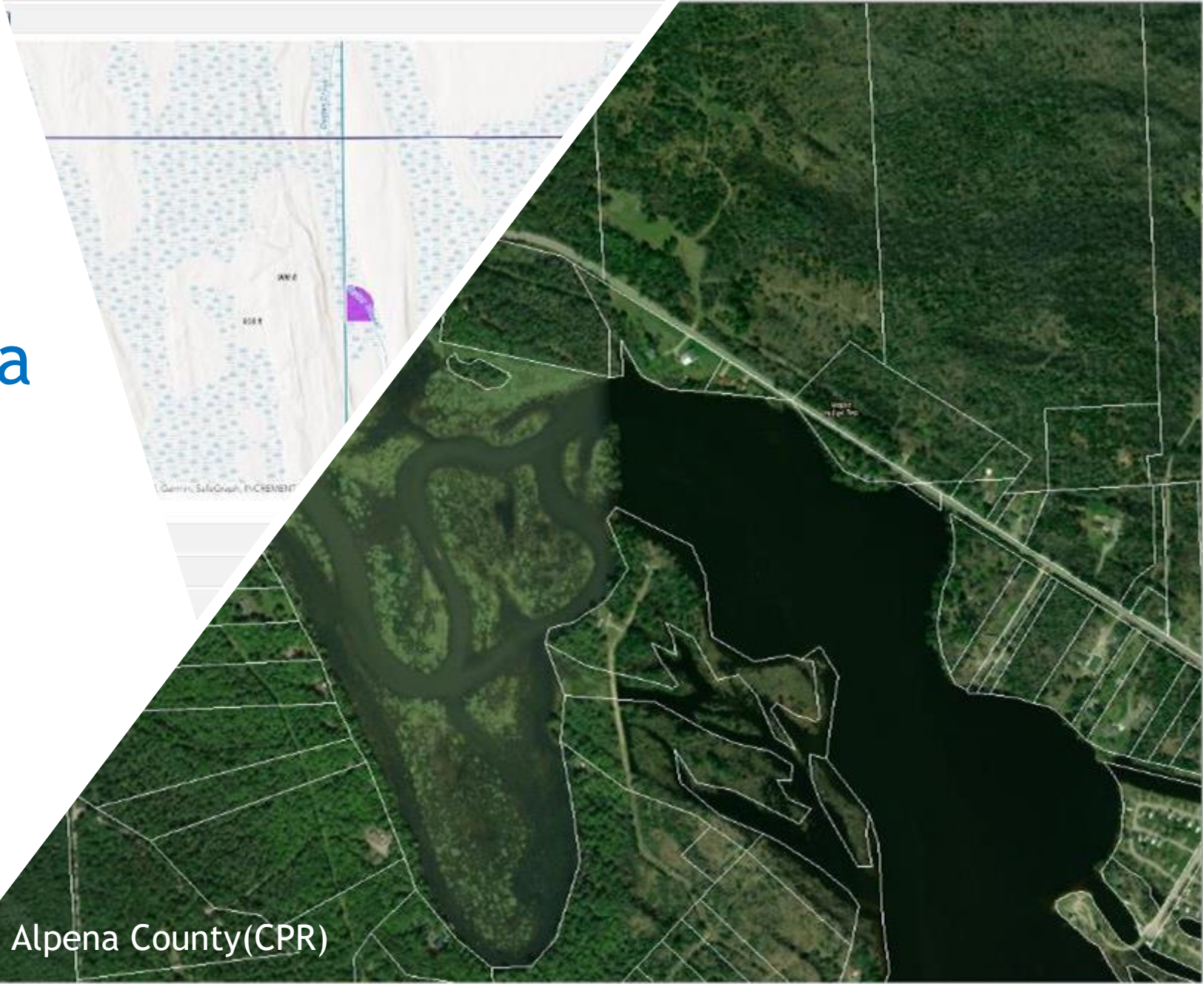
Overview of the State Land Bank Authority (SLBA)

- ▶ Created by Public Act 258 of 2003
- ▶ Mission: To create positive economic impact to Michigan communities by recycling land to productive use
- ▶ Ability to work across government entities and with developers, non-profits, private citizens, etc.
- ▶ Long-term holding (banking) or short-term selling of land
- ▶ How we receive properties:
 - Local unit of government tax foreclosure process
 - Surplus State property (MDOC)
 - Department of Natural Resources (especially at SLBAs inception)
 - Voluntary acquisition (strategic purchases)



Gathering the data (internal sources)

- DNR: LOTS database
- Center for Shared Solutions
Community Parcel
Repository (viewed in
ArcGIS)



Center for Shared Solutions Community Parcel Repository

- Partnership and data exchange between State and County government

DTMB Data Exchange Partners

Data Exchange Partners

- Data Exchange Partner
- Parcel Repository Partner
- Other

The MiSAIL program is a cross governmental collaboration of successful aerial imagery and LiDAR collection for Michigan that began in 2010. Through a standardized contract that meets industry specifications at a favorable price, DTMB Center for Shared Solutions (CSS) has been building partnerships with Federal, State, and Local governments to the benefit of users of aerial photography and LiDAR.

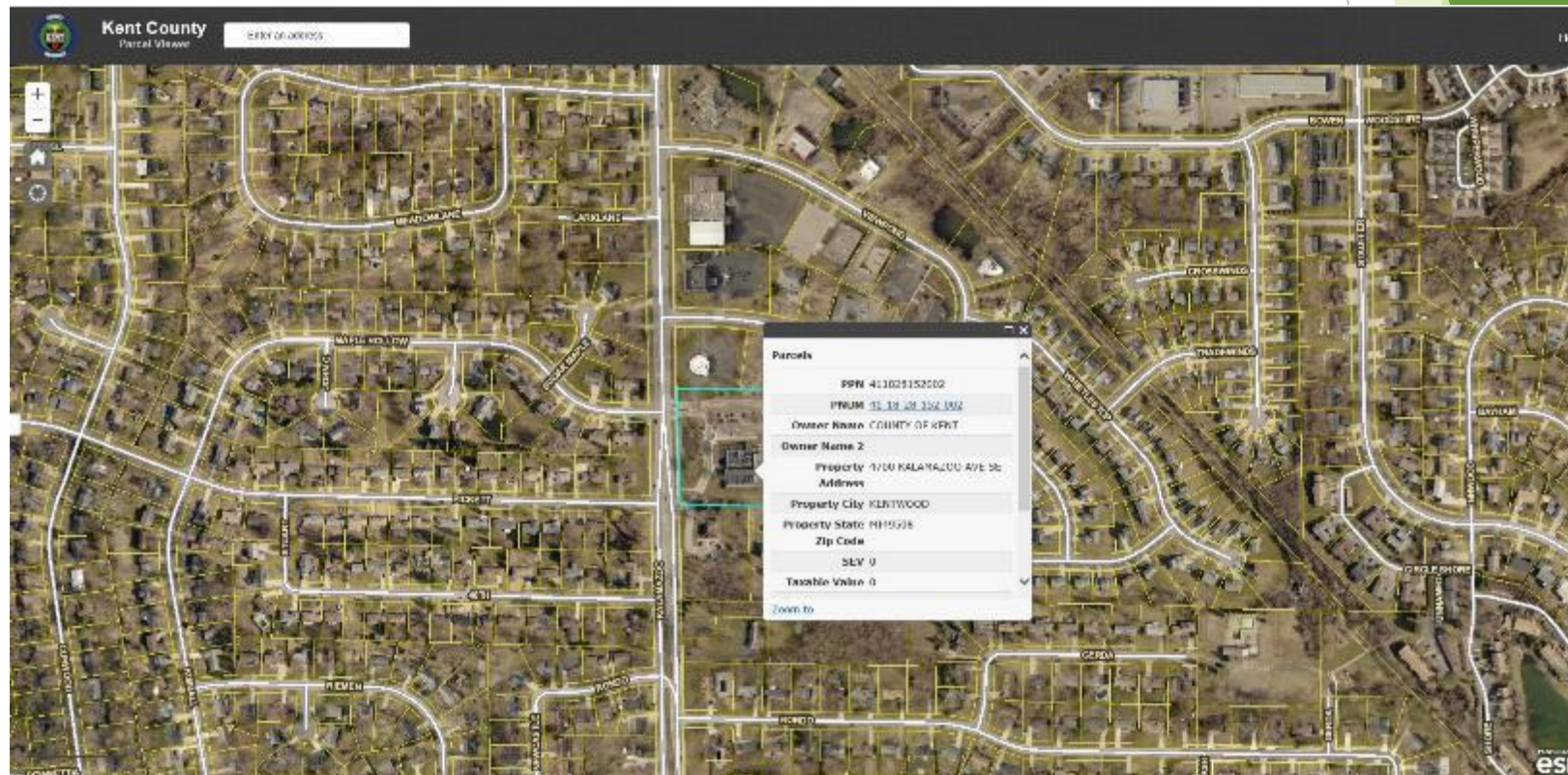
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This Data Exchange Partners map shows those counties that have signed the Intergovernmental Agreement (IGA) and have entered into this partnership. The GIS data provided by the counties is for internal use only by State agency personnel in support of their day-to-day operations. *Prior to the availability of the imagery for data exchange in 2018, the counties shown in green participated in the parcel repository partnership.

MiSAIL
Michigan Statewide Aerial Imagery & LiDAR Program
Michigan Statewide Geospatial Imagery & LiDAR Program

Gathering the data (public sources)

- ▶ County GIS websites (63 of 83)
- ▶ County Register of Deeds website (different levels of access)
- ▶ BS&A website
- ▶ Acre Value (especially for rural areas)
- ▶ LARA statewide search for subdivision plats
- ▶ EGLE
 - Enviro Mapper
 - Wetlands inventory
- ▶ Google Maps



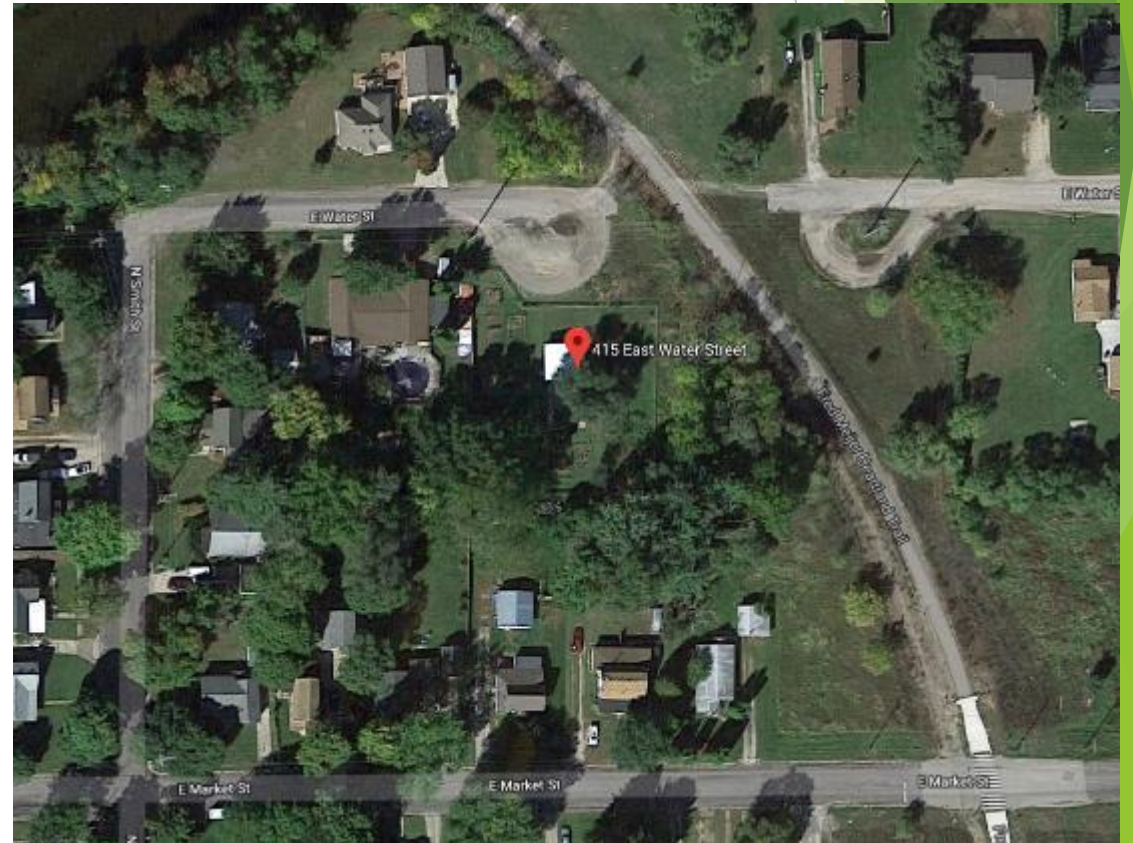


415 E Water St in Greenville

Bulk storage tanks
or community garden?

Verifying data

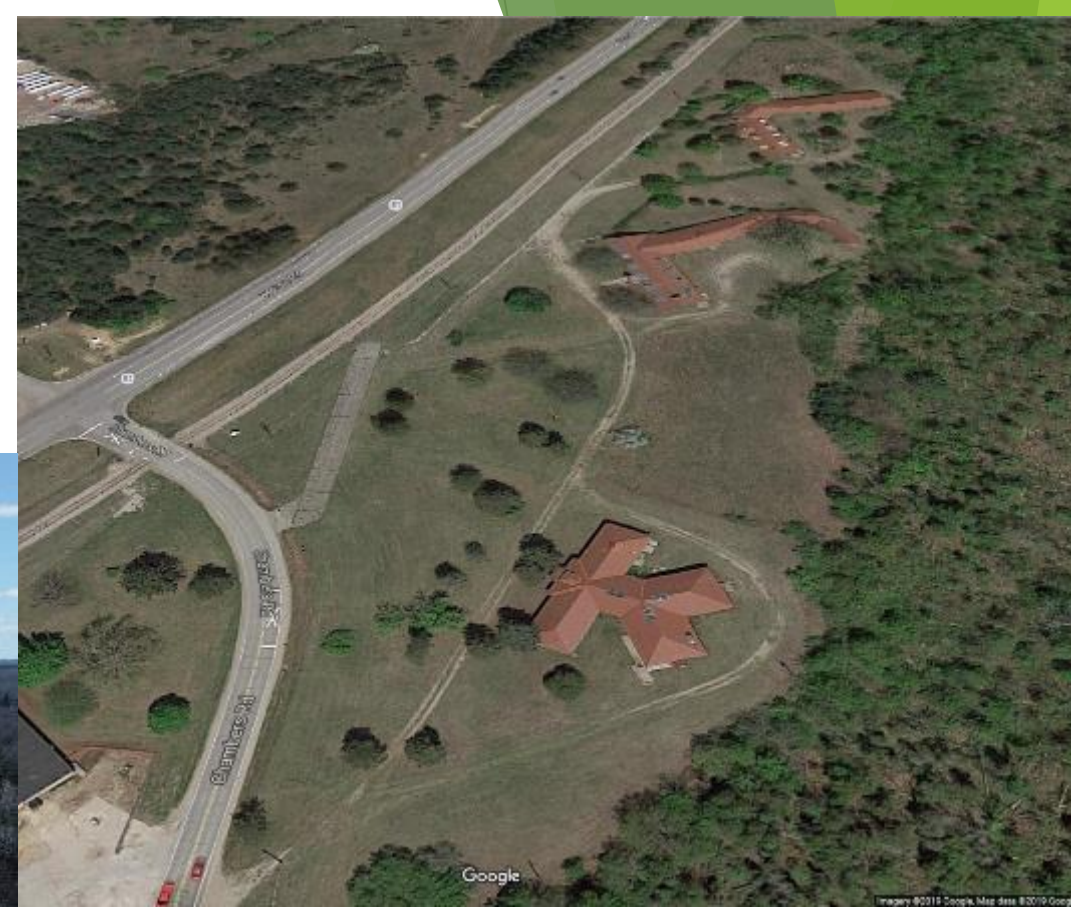
- ▶ Ownership records
 - Cross check sources
- ▶ Imagery
 - Site visits



Data creation using Unmanned Aerial Systems

► Imagery

-Large sites where more detail is needed



Caro State Hospital
surplus structures



Data creation using Unmanned Aerial Systems

► Imagery

-Document progress of on-going projects (former window factory in Lennon)





Osprey Court, Marquette

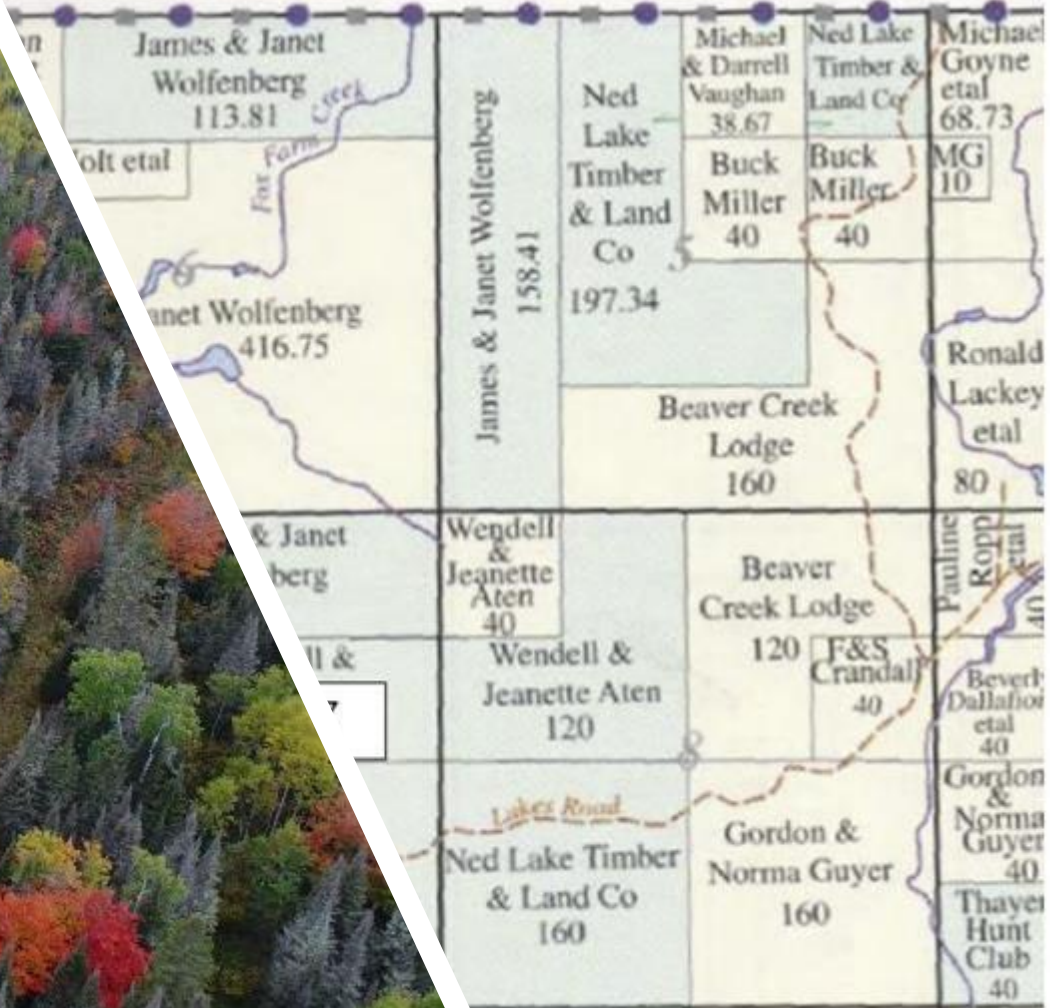
Data creation using UAS

- ▶ Site specific data collection to assist planning and decision making



HEMATITE TOWNSHIP

Private & Local Government Commercial Forest Act
Federal & State
Small Tract



UAS integration

- ▶ Site accessibility
- N End Road in Hematite Township, Iron County



UAS integration

- ▶ Exploring new ways to leverage capabilities
 - Marketing and communications
(Telling the story of the community-driven revitalization project Avalon Village in Highland Park)

► 29 April 2021

"Confessions of a UAS pilot: Straight talk about Part 107, starting a drone program from scratch, and living on the edge of the learning curve"



What becomes of all this data?

Michigan Land Bank Fast Track Authority Property Management System

Property Applications Services Program Parties Financials Administration Notes Reports

Welcome Brian Woodin Help Logout

Home Dashboards

Work Queues

My Work Queue My Organization's Work Queue

Status	Reference	Comments	Status Date	Created By	Created Date
Work in Process	HAYMES letter		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	M Bowman		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	GIDDINGS letter		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	3 boyles letter		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	WIMMER letter		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	HANSEN letter		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	MONTGOMERY letter		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	HAYES & ALLEN letter		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	ROBINSON letter		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	WALKER letter		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	SCOTT letter		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	YOUNG letter		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	IACOBONI & VELARDI ...		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	HILL letter		05/14/2019	Ryan McNeil	05/14/2019
Work in Process	REYNOLDS letter		05/14/2019	Ryan McNeil	05/14/2019

Page 1 of 36

My Property Applications

Status	Count
No records found.	

Page 0 of 0

My Notifications

Follow Up Date	Source	Notified By	Date Sent
05/20/2019	Property : 232006661801030 - 406 N Sheldon Street	Linda Horak	05/20/2019
Can you find any lot dimensions out there? BSA have 6 x 0 and the moving vendor is charging for an extra sized lot.			
05/01/2019	Property : 0602807700_02 - W 1 1/2 Mile Rd	Ryan McNeil	05/01/2019
This parcel had been misidentified as part of 06-028-002-S7 (HATLAS). The legal description indicates it is one of the three DNR ParIDs which make up 06-028-077-00. I've marked this as "High" priority as there are applications which may be affected by this correction.			
03/18/2019	Property : DNR1068908 - N 18th St	Brian Woodin	03/01/2019
FOLLOW UP			
02/10/2019	Property : 10048222000 - 8253 TANGLEWOOD TRL	Brian Woodin	02/10/2019
STRUCTURE??			
02/06/2019	Property : 6126635247000460 - 2821 Mason	Brian Woodin	02/06/2019
Adj to city lot; modular candidate?			
02/06/2019	Property : 6124205386001360 - 209 Merrill Avenue	Brian Woodin	02/06/2019
adj to city lot; modular candidate?			
02/04/2019	Property : 4301804029003 - Thomson St	Brian Woodin	02/04/2019
transfer to city?			

Page 1 of 1

Statewide Inventory - From Points to Polygons

- ▶ Parcels are typically assigned a location based on address (geocoding) or tax parcel identification number (spatial data)
- ▶ At time of import to inventory system, geocoding engine will make attempt location based on best available address data
- ▶ Many parcels entering MLB inventory lack address location and/or tax parcel identification number
- ▶ Reconciliation necessary to accurately portray location
- ▶ Open Data sites and data sharing agreements have been enormously helpful in improving our spatial intelligence!

Statewide Inventory - From Points to Polygons

Direct access to parcel boundary data greatly improves workflow

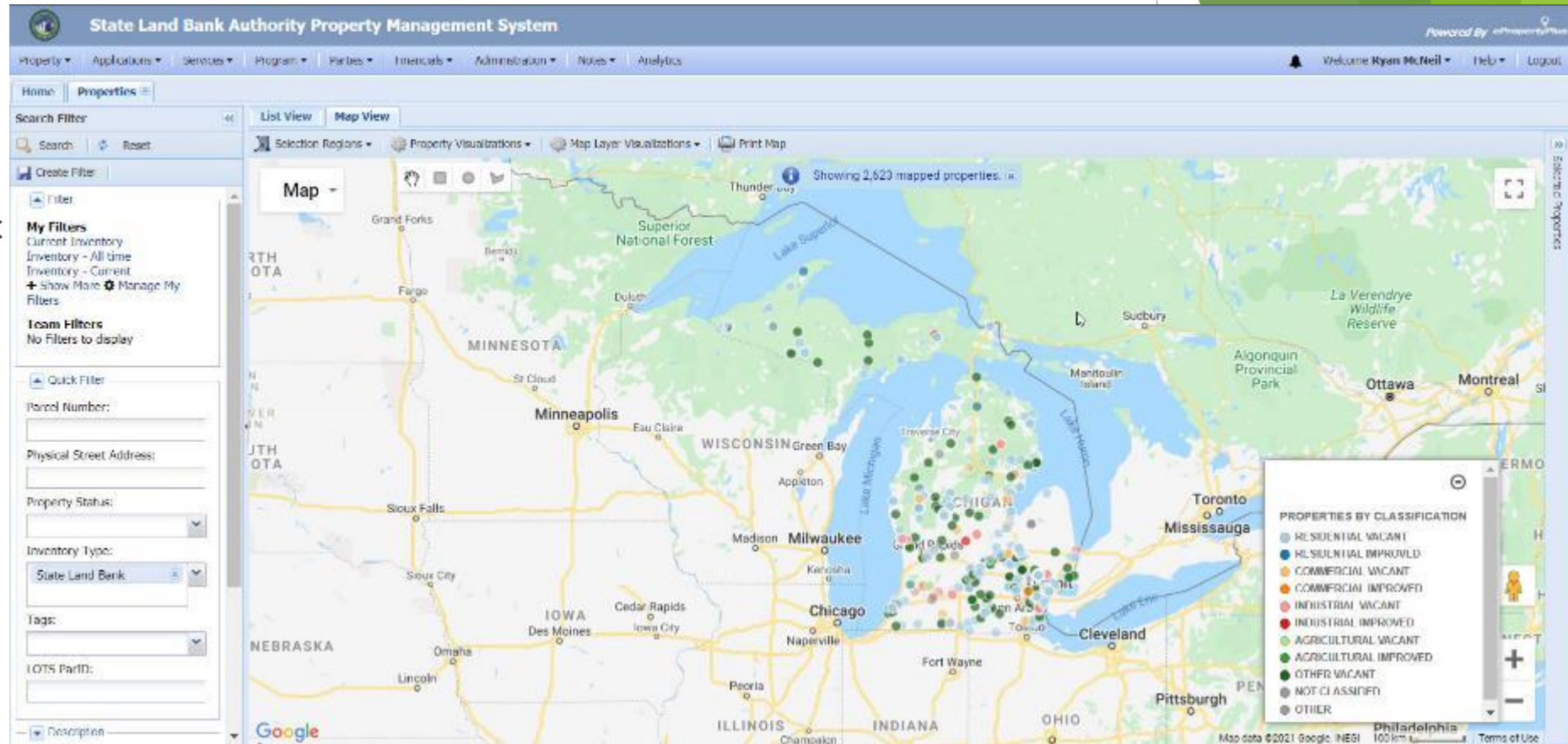
Many counties make parcel data available through open data sites or through web services

Some counties have opted to restrict availability and/or request fees for access

Opportunities exist for strategic data sharing

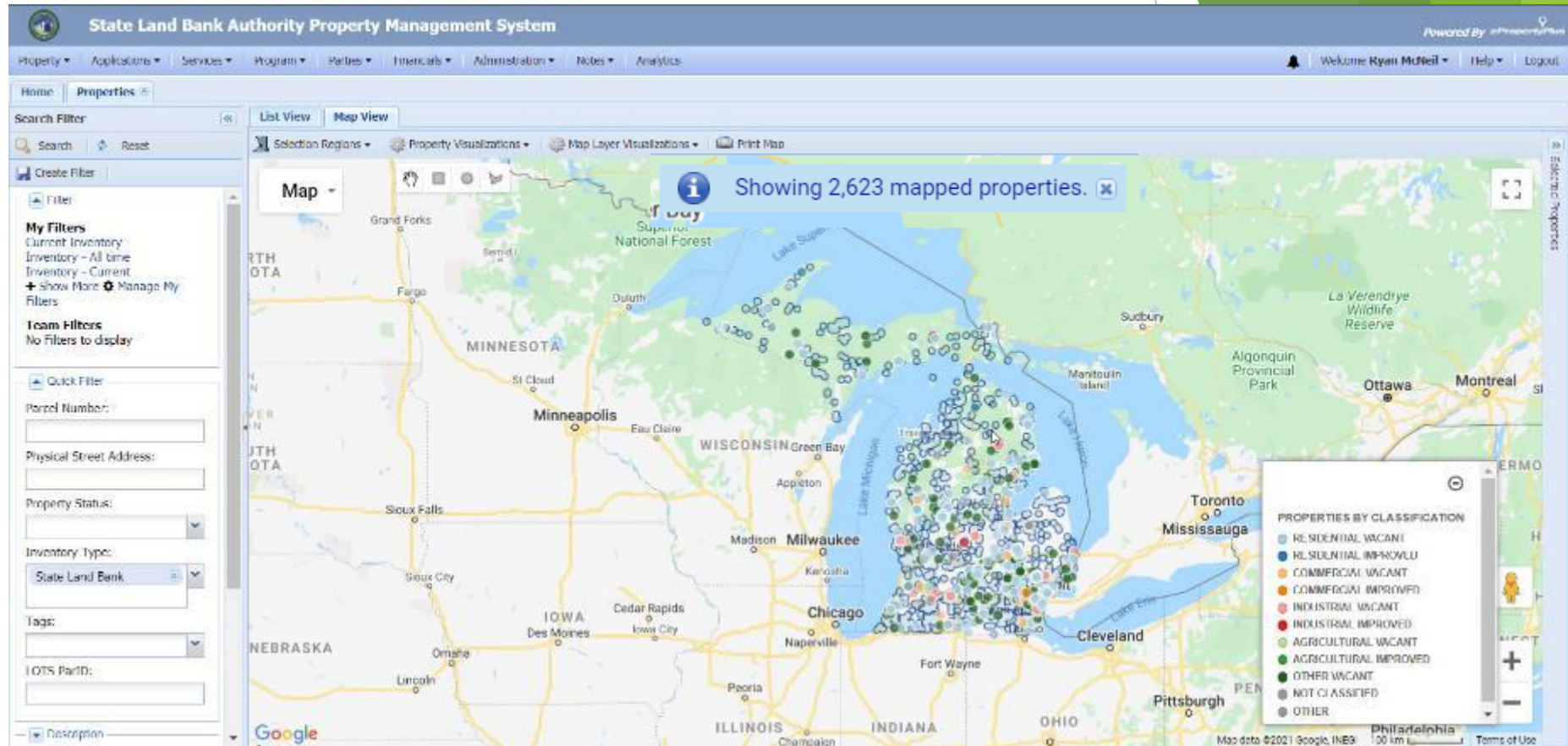
Candidate parcels for solar development

- ▶ Within 5 miles of electrical substation
- ▶ Minimum size: 5 ac
 - ▶ Preferred size: 10 ac
 - ▶ Contiguous or aggregate
- ▶ Vacant



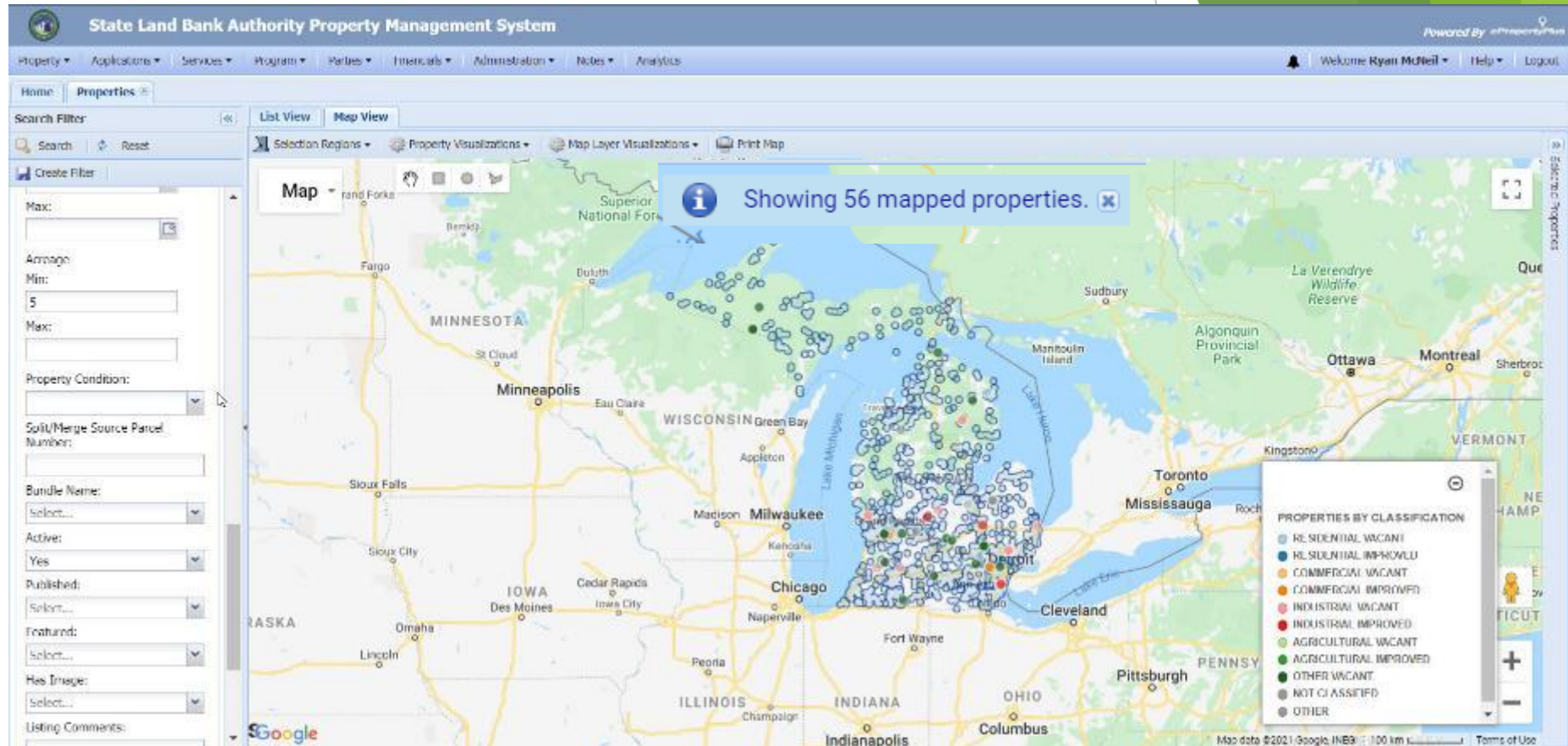
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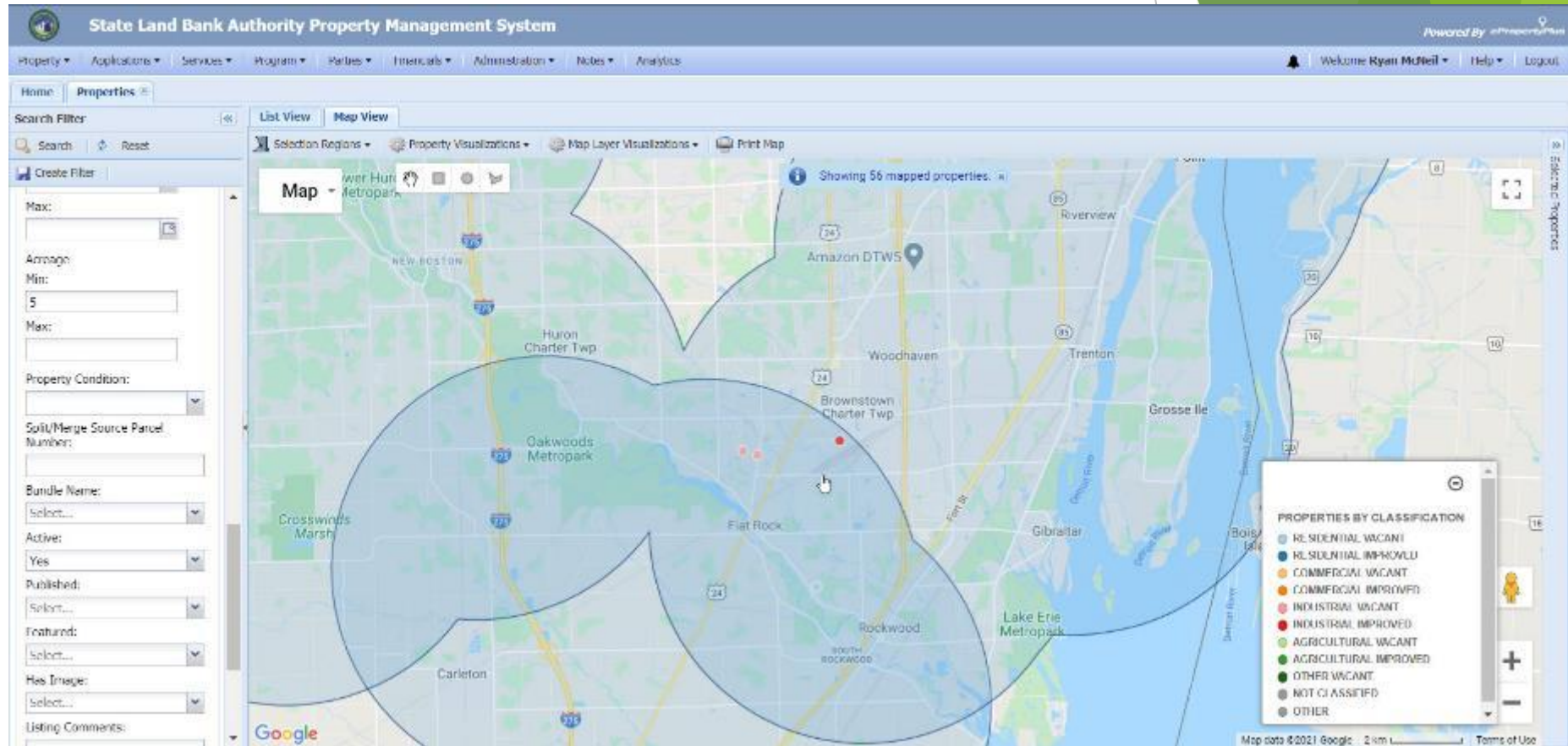
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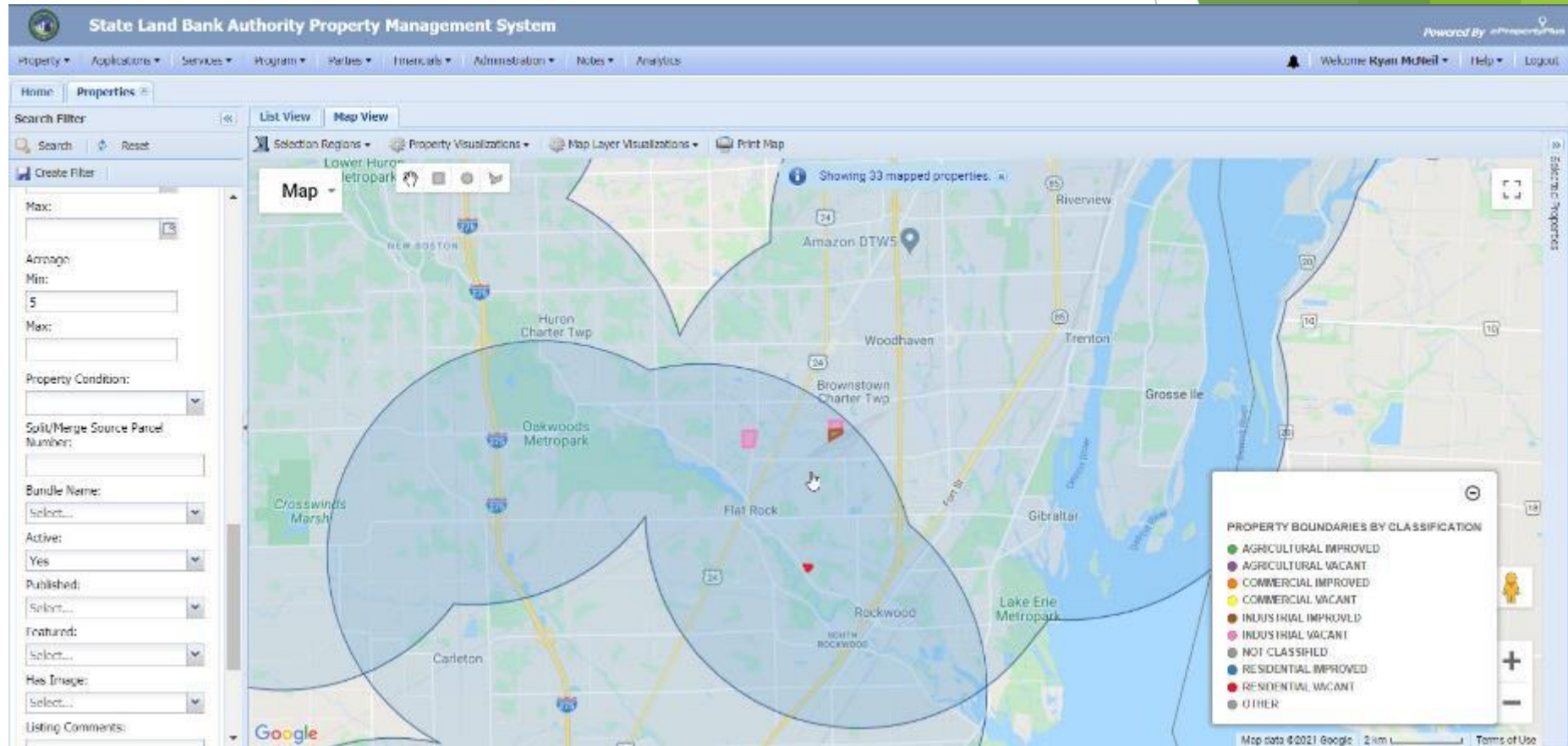
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The screenshot displays the State Land Bank Authority Property Management System interface. The main window shows a satellite map with several parcels highlighted in pink and orange. A legend on the right side of the map, titled "PROPERTY BOUNDARIES BY CLASSIFICATION", lists various property types with corresponding colored circles: Agricultural Improved (green), Agricultural Vacant (purple), Commercial Improved (yellow), Commercial Vacant (orange), Industrial Improved (brown), Industrial Vacant (pink), Not Classified (grey), Residential Improved (blue), Residential Vacant (red), and Other (black). The interface includes a search filter on the left, a search bar, and a "Create Selection Region" button. The top navigation bar includes "Home", "Properties", and "Map View". The bottom status bar shows "Map data ©2021 Imagery ©2021, CHES / Airbus, Maxar Technologies, U.S. Geological Survey, USDA Farm Service Agency, 100 m" and "Terms of Use".

Candidate parcels for solar development

- ▶ Within 5 miles of electrical substation
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 - ▶ Contiguous or aggregate
- ▶ Vacant

The screenshot displays the 'State Land Bank Authority Property Management System' interface. The main view is a satellite map with a 'Property Information' popup window. The popup provides details for a specific parcel:

- Parcel Number: 59080990008000
- Property Address: 26361 Peters, Woodhaven
- Property Status: Reserved
- Property Class: Industrial Vacant
- Current Owner: State Land Bank Authority
- Tax Unit: City of Woodhaven
- Subdivision: 104S, R10E, S28, T14 of 174 (1)
- Property Condition: Possible Contamination
- Foreclosure Year: 1997

Below the popup, there is a filter for properties within a 5-mile radius. A legend titled 'PROPERTY BOUNDARIES BY CLASSIFICATION' is visible in the bottom right corner, listing various property types with corresponding colored markers:

- AGRICULTURAL IMPROVED
- AGRICULTURAL VACANT
- COMMERCIAL IMPROVED
- COMMERCIAL VACANT
- INDUSTRIAL IMPROVED
- INDUSTRIAL VACANT
- NOT CLASSIFIED
- RESIDENTIAL IMPROVED
- RESIDENTIAL VACANT
- OTHER

The interface also includes a search filter on the left, a map navigation toolbar, and a top navigation menu with options like 'Home', 'Properties', 'List View', and 'Map View'.



STATE OF MICHIGAN AERIAL IMAGERY EXCHANGE FOR LOCAL DATA

Beginning in 2018, Michigan counties may exchange local, authoritative GIS (geographic information systems) data for 12-inch aerial imagery. The County would share with the State of Michigan the following GIS data: parcels, address points, and road centerlines. In return, counties will receive 12-inch imagery at no cost.

- The GIS data provided by the County would be for internal use only by State agency personnel in support of their day-to-day operations.
- If the County does not have this information in GIS format, the State is still interested in discussing a potential exchange.
- An intergovernmental agreement (IGA) would be entered into by the County and the State. The IGA defines roles and responsibilities of each partner. The IGA is available for review.
- Proprietary online access to the imagery would be provided through the Michigan Imagery Solution (MIS) for up to five County users. The State will also deliver a copy of the County's most current 12-inch imagery on an external hard drive. There is no fee for either delivery option.
- Buyups at 3-inch and 6-inch resolution are also available. This is most cost effective if planned during a regularly scheduled flight year.
- The Michigan flight schedule map is attached.

For more information, please contact:

Everett Root at roote@michigan.gov (517-335-7180)

Ulrika Zay at zayu@michigan.gov (517-335-7011)

Statewide Inventory - From Points to Polygons

- MiSAIL - Michigan Statewide Authoritative Imagery Program
- Counties receive authoritative 12-inch imagery in return for sharing parcels, address points, and road centerlines
- Information shared with the State is for internal use only

MiSAIL - Data Exchange Partners



Data Exchange Partners

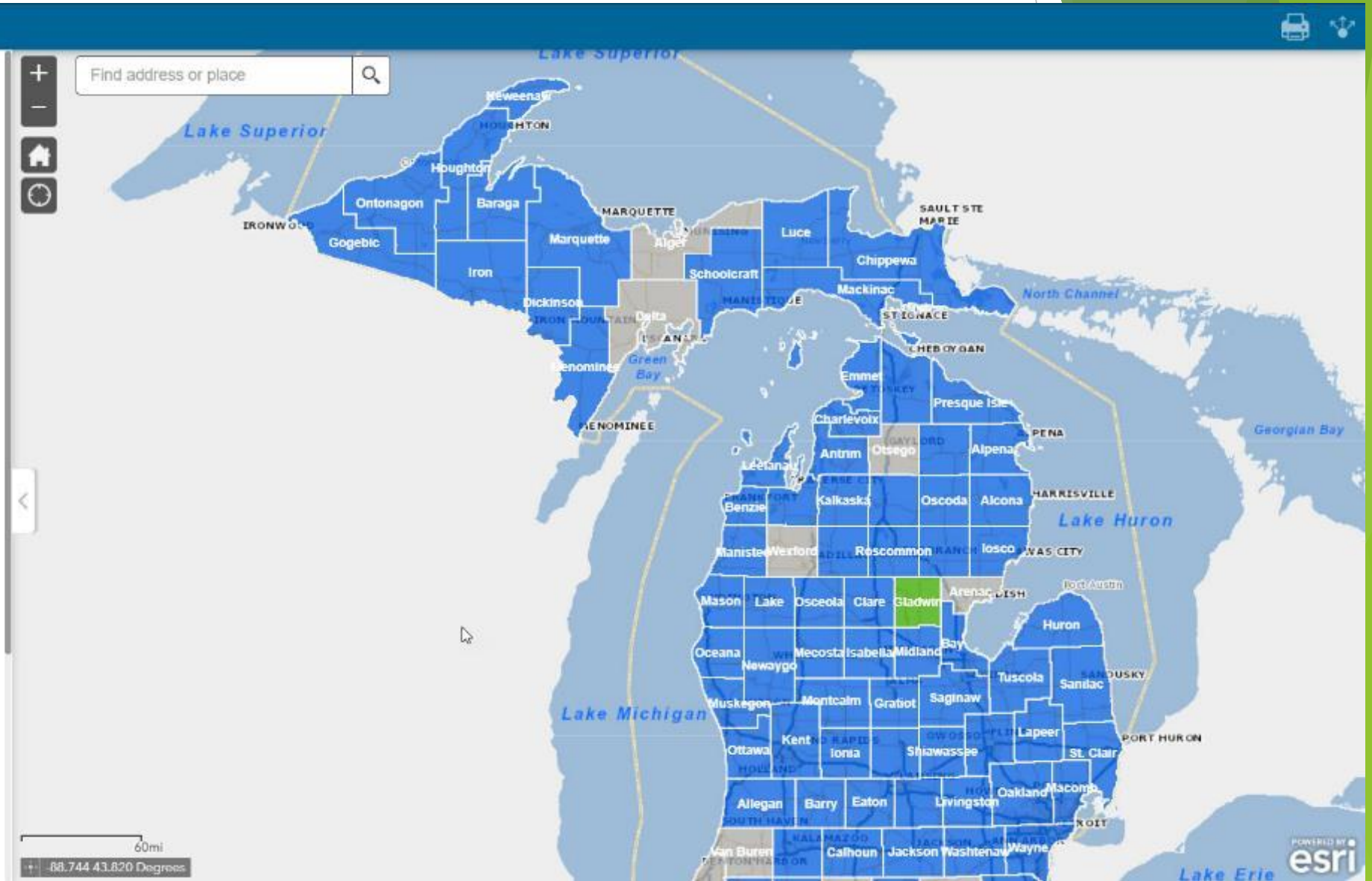
Data Exchange Partners

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SLBA GIS: Other Ongoing and Upcoming Projects

- ▶ LEO ArcGIS Online Organizational Account
 - ▶ SLBA will manage site
 - ▶ Improve collaboration with internal and external partners
 - ▶ Promote SLBA activities to interested stakeholders with StoryMaps and other AGOL tools
- ▶ Supporting Disposition and Development teams
 - ▶ Map incoming tax foreclosed properties
 - ▶ Anticipating implementation of ArcGIS API in property management system (eProperty Plus)
 - ▶ Incorporate valuable attribute data stored in Parcel Repository



Canadian Lakes

Township in Michigan

Canadian Lakes is an unincorporated community in Mecosta County in the U.S. state of Michigan. The area is mostly within the southwest portion of Morton Township, southwest of Mecosta and east of Stanwood. For statistical reporting, the U.S. Census Bureau has defined a census-designated place with the same name.

[Wikipedia](#)

Elevation: 965'

Area: 10.7 mi² (9.5 mi² Land / 1.2 mi² Water)

Zip code: 49346

Population: 2,574 (2019)

Area code: 231

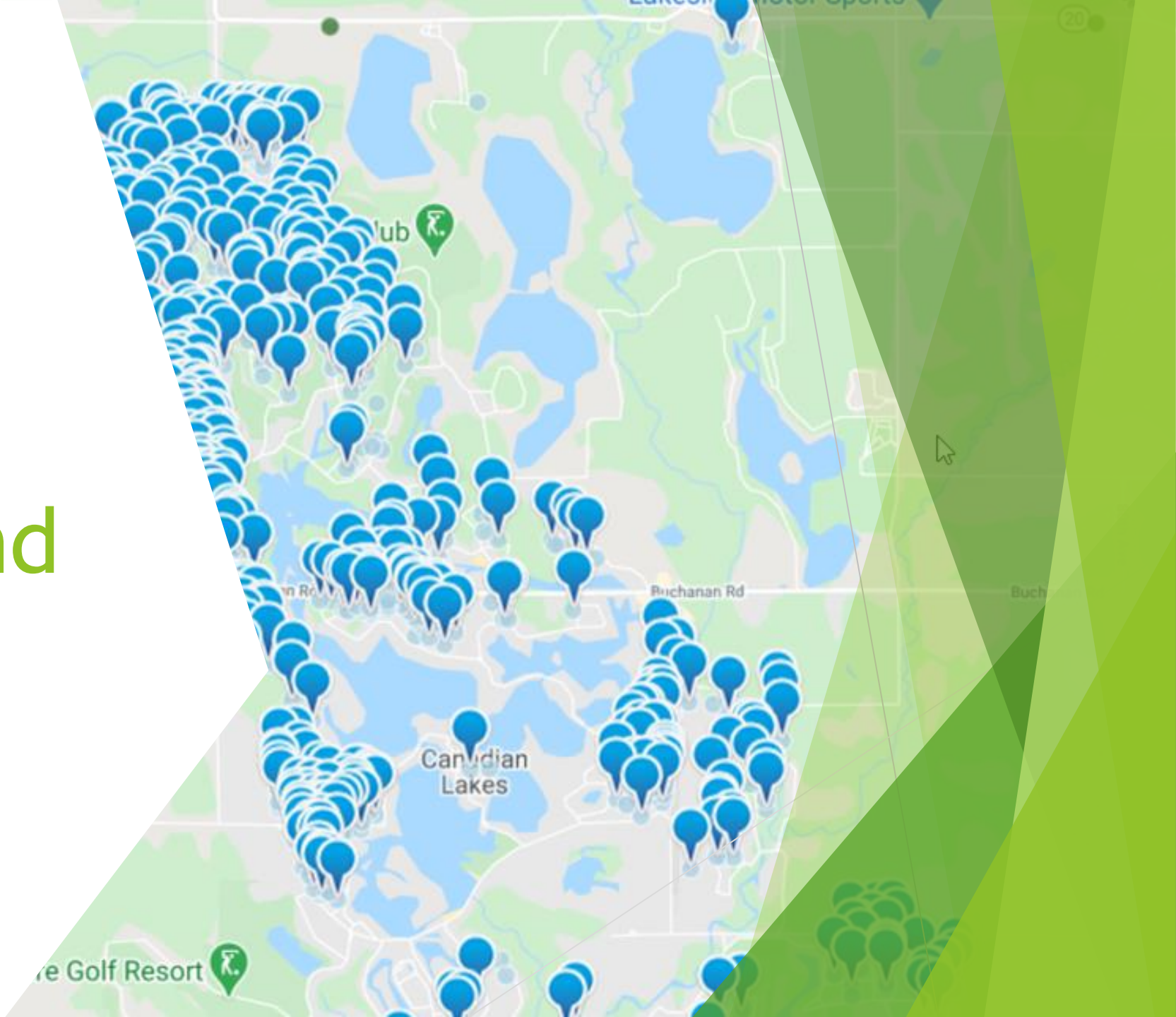
Weather: 31°F (-1°C), Wind S at 11 mph (18 km/h), 66% Humidity

Local time: Thursday 10:57 AM

GIS and Canadian Lakes: an ongoing collaboration opportunity

- ▶ Background
- ▶ Development Shortfalls
- ▶ Cooperative Development with Community Association
- ▶ How can this be fixed and what are the best steps to assist the Community?
- ▶ Use of GIS to support innovative neighborhood renewal

Background



WHO SAYS YOU CAN'T *Have It All?*

The amenities in Canadian Lakes are just another reason why the GOOD life is found here. Beside our lakes and golf courses, our two most appealing assets, members and their guests have an indoor and outdoor pool, enclosed dog park, many sporting venues and even a 4200-foot, lighted and maintained, grass air strip. Add our multiple community buildings and pavilions together with 80 areas of common parks, family time it easy to come by. Top it all off with an exclusive private and modern 350-site campground. Yes, Canadian Lakes... the GOOD life.

- ▶ Unincorporated community in Mecosta County. Approximately 30 minutes West of Mt. Pleasant.
- ▶ Community started development in 1960 as multiple platted Master Deeds for a total of 17 differently zoned communities, and 55 subdivisions. One of the largest private housing developments in the county with approximately 5,400 platted parcels.
- ▶ Marketed mainly to influential communities in the Detroit Metro Area.
- ▶ Comprised of forest, 20 water features/lakes, wetlands, 5 private beaches, campground, 3 Golf Courses, a small village, an AIR STRIP, and multiple privately owned green spaces.
- ▶ Currently approximately 2,100 improved residential lots.
- ▶ Historically around 60 homes were constructed per year.
- ▶ Average age is 60 years old.

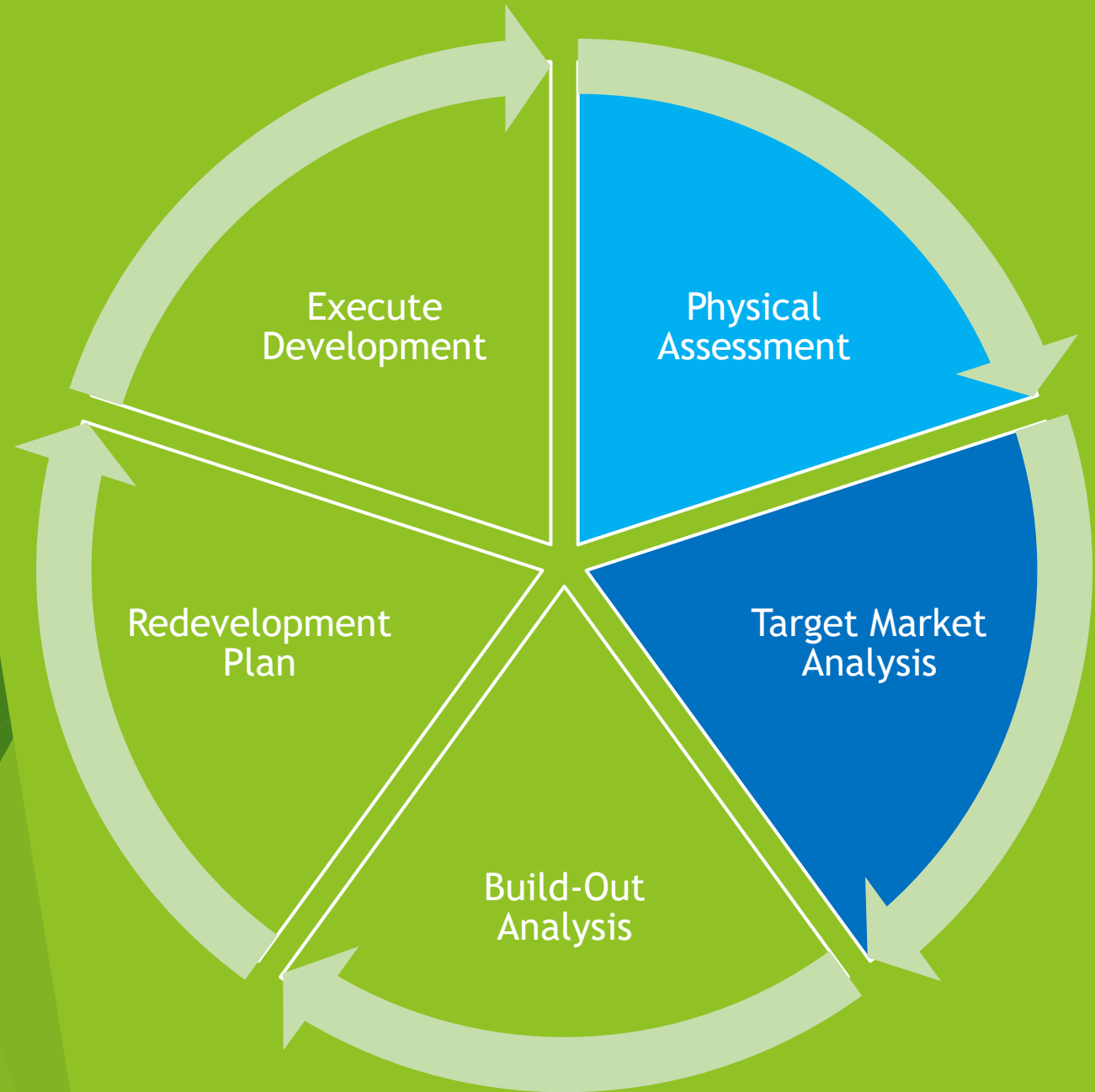
Development shortfall: how it came to be

- ▶ Housing Bust of 2007-2008.
- ▶ New home builds declined from 100+ builds in the early 2000s to 2 builds in 2011.
- ▶ Foreclosure transfers from the County Treasurer of vacant parcels to the SLBA started in 2002 and continue today.
- ▶ Reasons behind the increase in forecloses and new home start failures:
 - ▶ Decline in marketing to potential community members
 - ▶ Aging out of the market
 - ▶ Failure to attract new home buyers, developers, or single-family home starts
 - ▶ Housing Market Crash of 2007-2008
 - ▶ Lack of traditional amenities (shopping markets, schools, restaurants) to compete with neighboring growing marketplaces in Mt. Pleasant, Big Rapids, etc.
 - ▶ Increased costs of maintaining membership fees
 - ▶ Increased costs of home builds
- ▶ Currently SLBA holds over 662 vacant parcels with an average of fifty additional per year

WHAT HAPPENS NOW?

GIS OF COURSE!

Cooperative Development with Community Association



How can this be fixed and the steps to assist the Community?



Physical Assessment

Target Market Analysis (TMA)

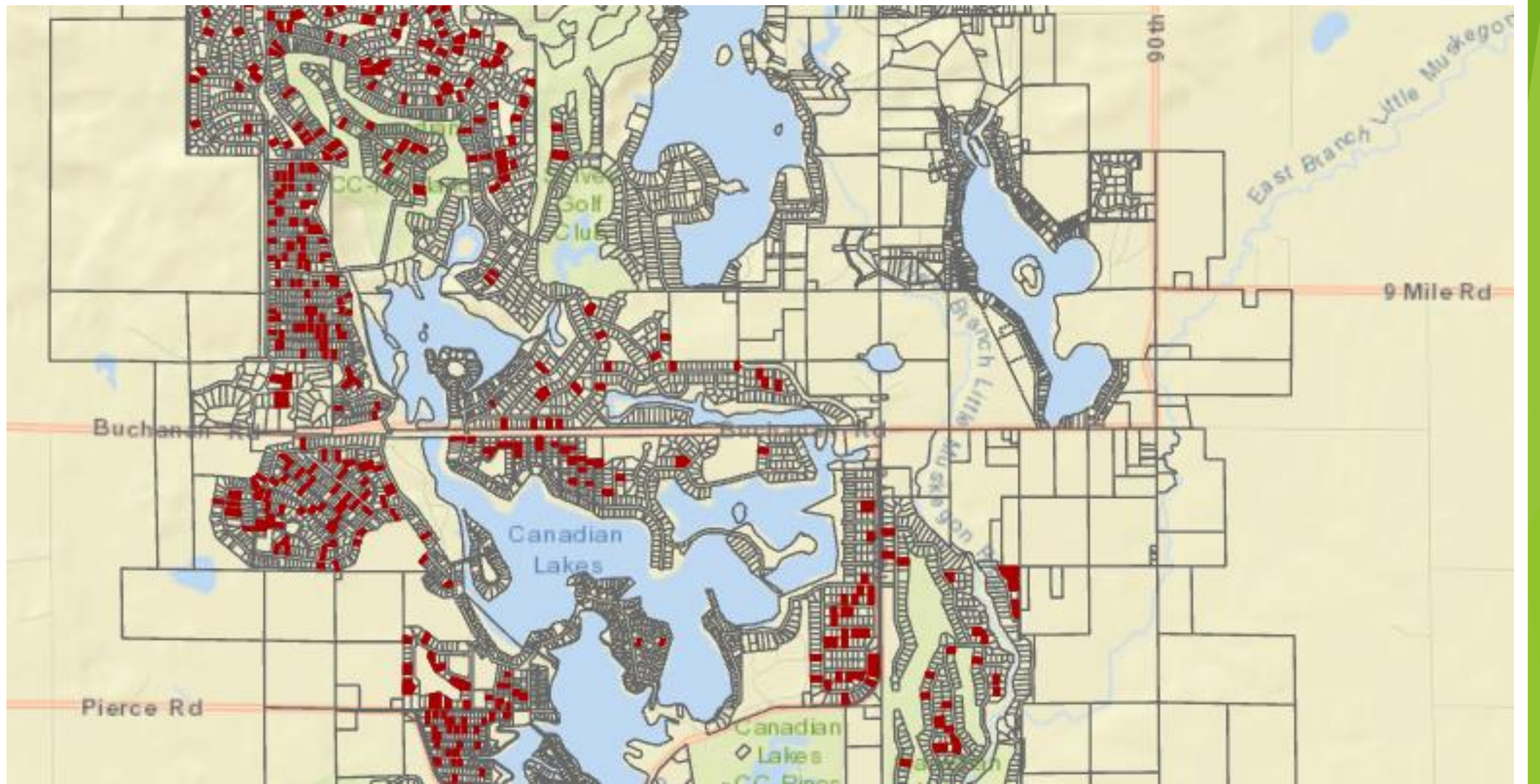
This step will identify, inventory, and map the available properties in the area under SLBA and Association ownership, additionally other publicly owned property pertinent to the Community.

GIS to the Rescue!

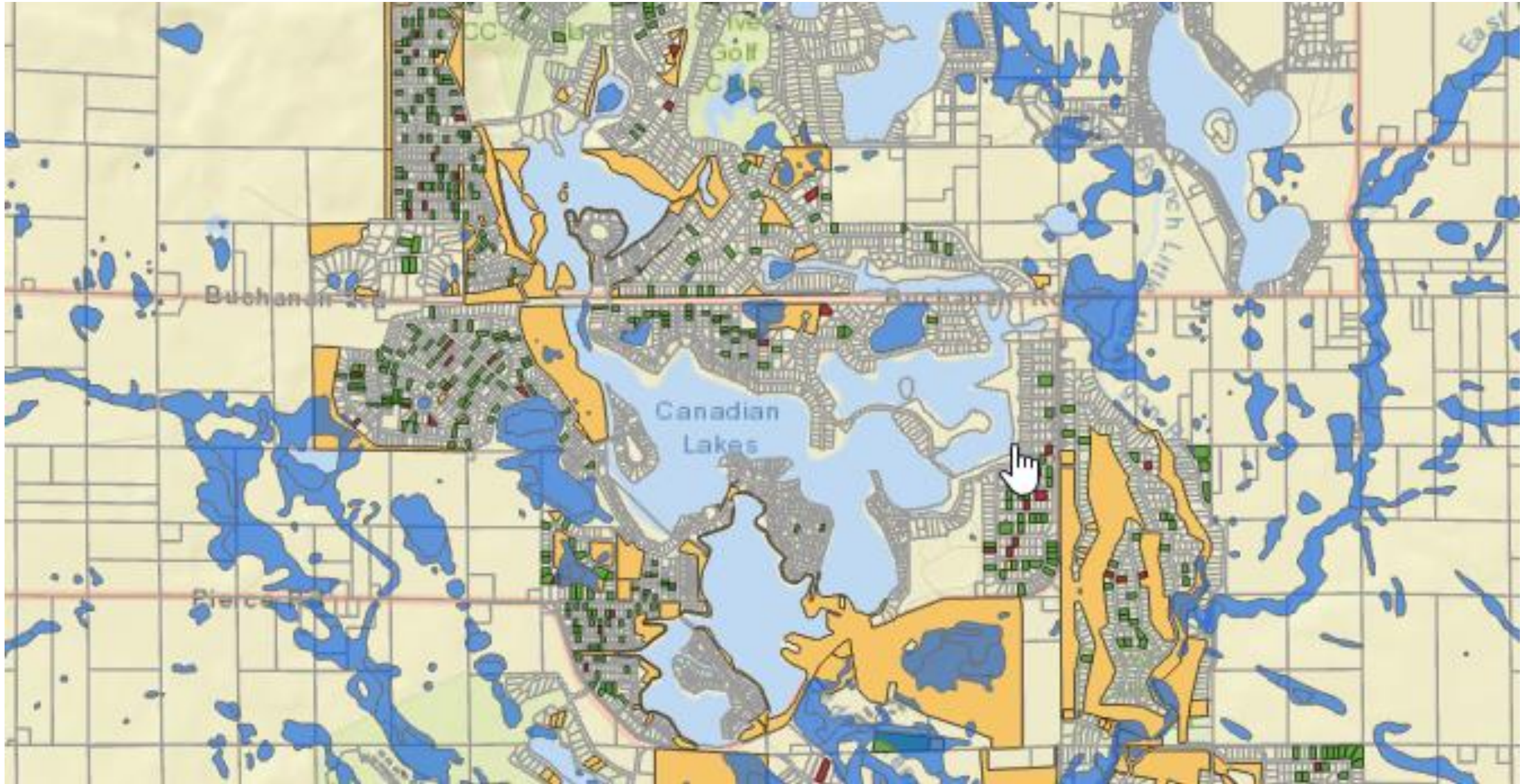
The TMA will identify the current and potential market for the Canadian Lakes Communities. The analysis will focus on WHO is buying property, WHAT are they buying, WHERE are they buying, WHY are they buying, WHEN are they buying, and HOW are they purchasing the properties in Canadian Lakes.

Another use of GIS - I am sure

LAND BANK INVENTORY



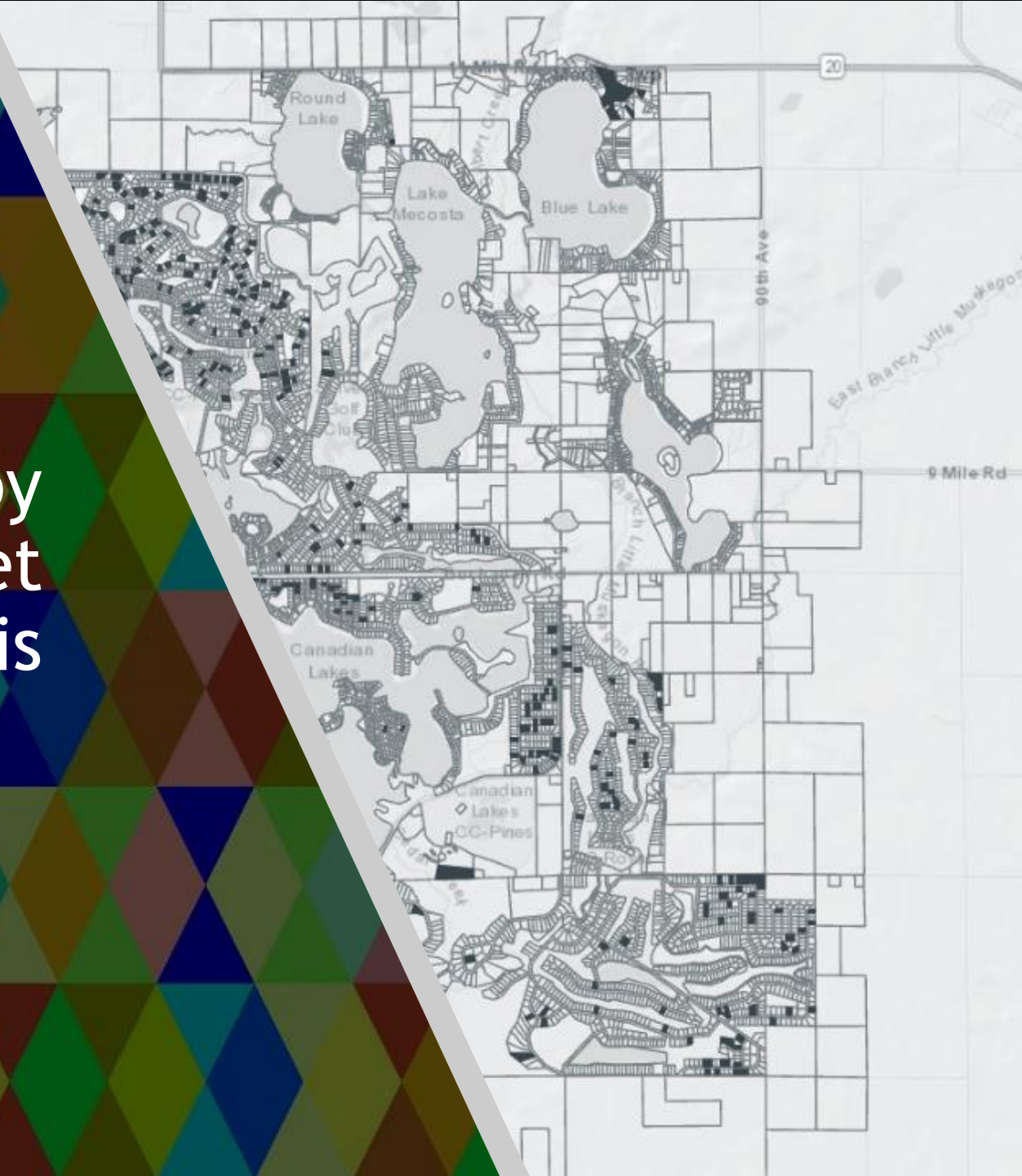
LAND BANK INVENTORY WITH WETLAND IMPACT




INVENTORY ANALYSIS FOR BUILD-ABLE SITES



Map to be completed by
the Target Market
Analysis



Use of GIS to Support the Fix



Build-Out Analysis

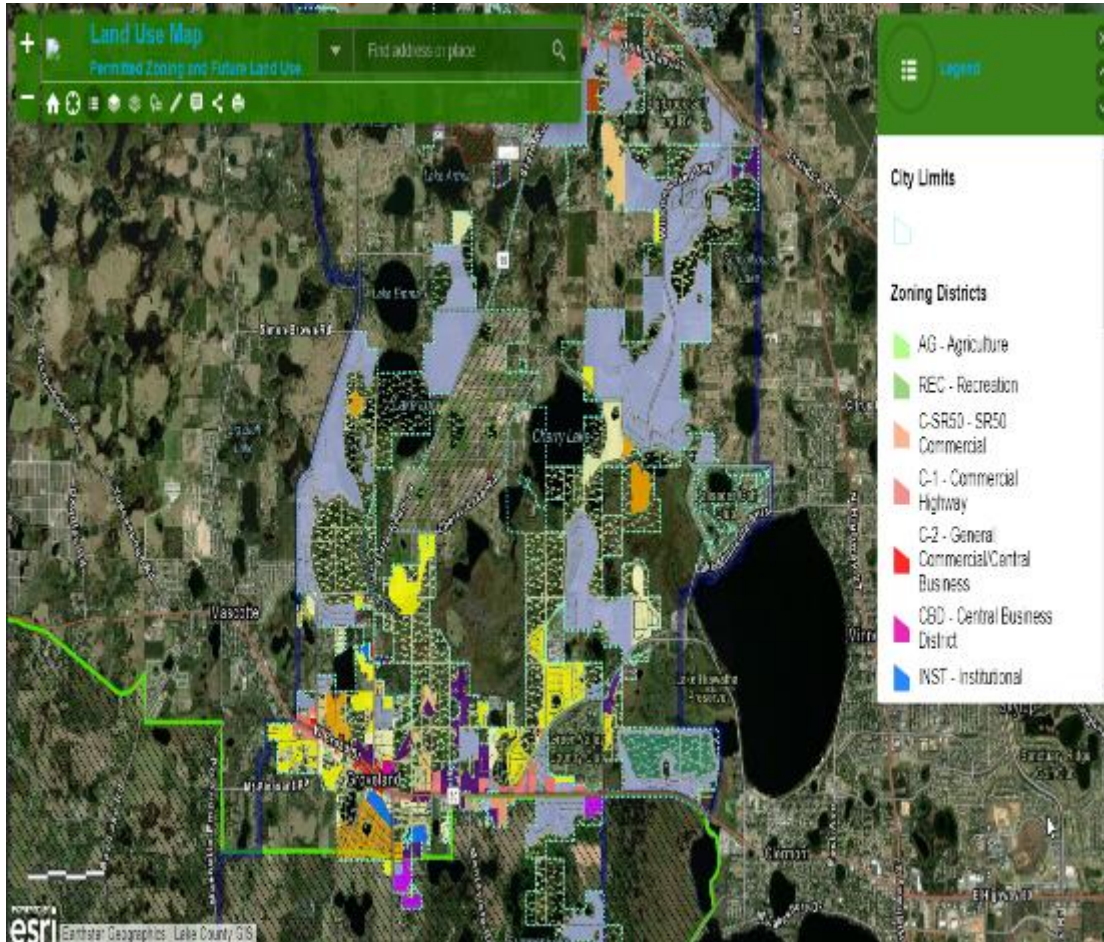
This exercise will begin after the completion of the TMA. The goal of the exercise is to estimate and determine the amount and locations for development within the Canadian Lakes Community. The exercise takes into consideration local planning, zoning requirements, and development regulations as well as the community's vision for the future of Canadian Lakes. The product for the exercise will be a Redevelopment Master Plan for the communities in Canadian Lakes.

**WE GET TO USE MAPS and maybe even
STORYMAPS!!!**

Land Use and Strategic Planning Map Development with ArcPro



Used to help realize the potential of the community and market strategic development for multi-use and a spectrum of housing and business development options.



Story Map Time



Carter Caves

Carter Caves State Resort Park is located in Carter County, Kentucky along Tygarts Creek. It is formed by Carter Caves, and nearby Cascade Caves, which were added to the park in 1959. On December 16, 1981, 146 acres of the park were designated as a state park.



1 Barren River



2 Blue Licks



3 Breaks Interstate Park



4 Buckhorn Lake



5 Carter Caves



6 Cumberland Falls



7 Dale Hollow



8



Redevelopment
Plan

Execute
Development

Definitely more maps will be made
when we get to these steps. Who
doesn't want more maps... RIGHT???

*Insert we will follow up with a
completion of all steps inXXX years*

To view available State Land Bank properties visit
www.michigan.gov/landbank



Contact the Michigan Land Bank

(517) 335-8212

landbank@michigan.gov

mcneilr@Michigan.gov

quinlivanj@Michigan.gov

woodinb@Michigan.gov



[@MichiganLandBankFastTrackAuthority](https://www.facebook.com/MichiganLandBankFastTrackAuthority)