



Leslie Meyers – Antrim County Drain Commissioner and Operator of Dams

Overview of the ERCOL Watershed & the responsibilities of both Offices

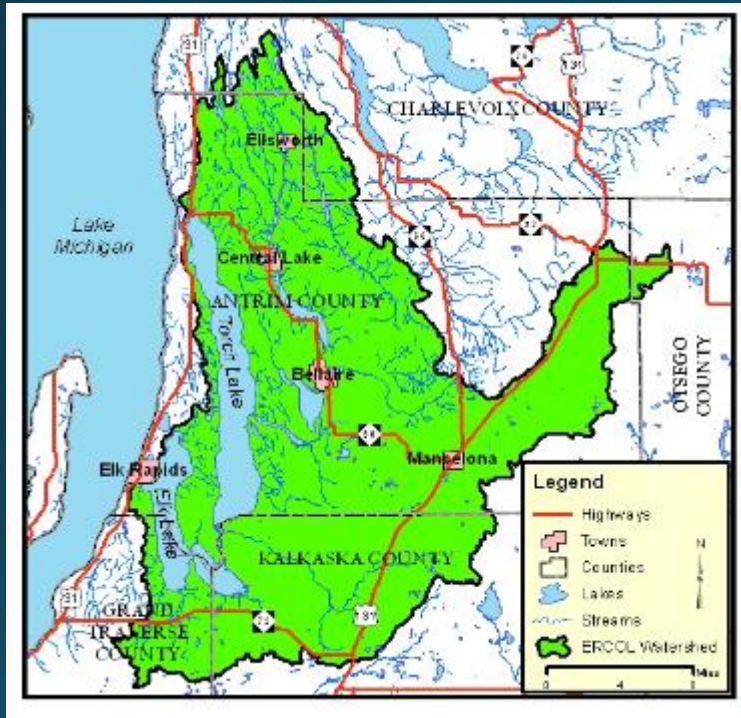
Our Watershed

- 505 square mile area
- 5 Counties
- 200 miles of shoreline
- 75 miles of waterways
- 14 Lakes, 7 rivers and over 200 streams
- 40' elevation drop
- Provides 60% of the water for Grand Traverse Bay



Our Watershed Continued

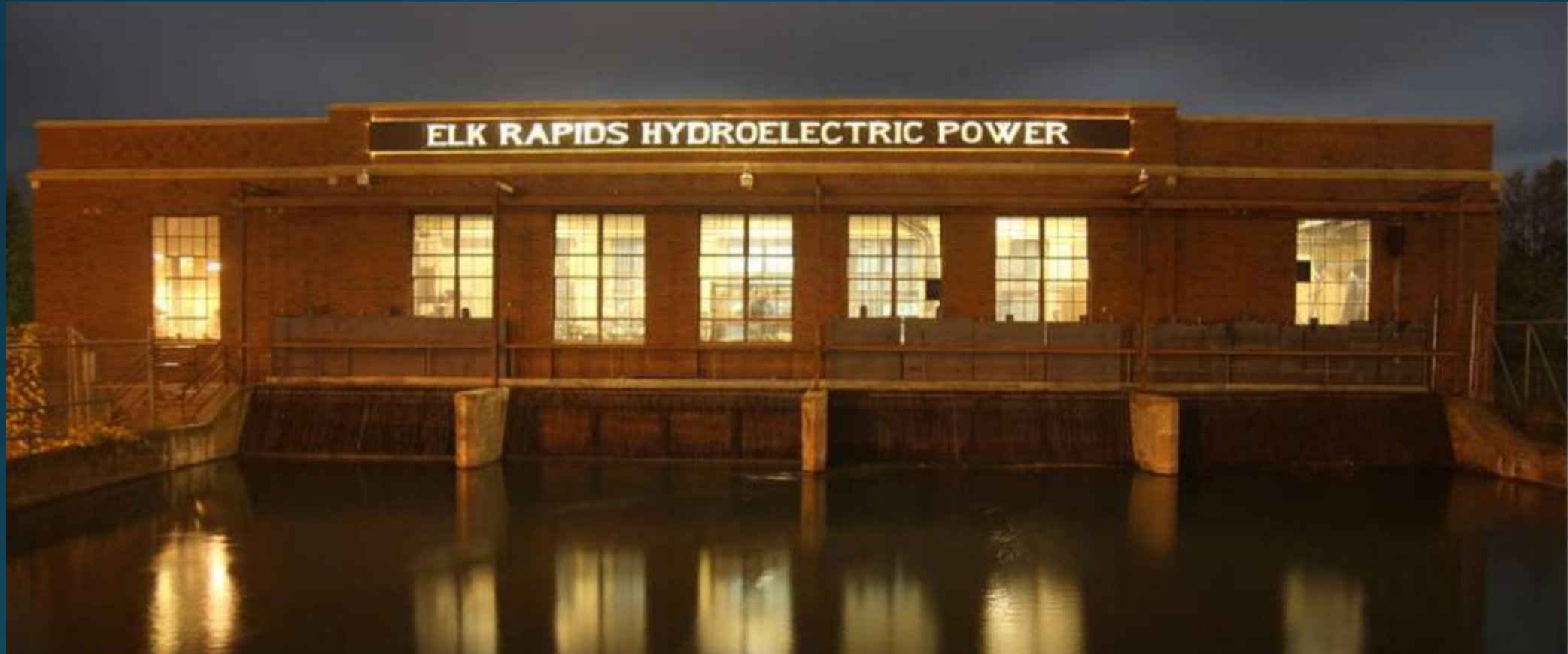
- 19,600 Parcels
- 72% of the Watershed is located within Antrim County
- 2nd place goes to Kalkaska
- Two watershed councils



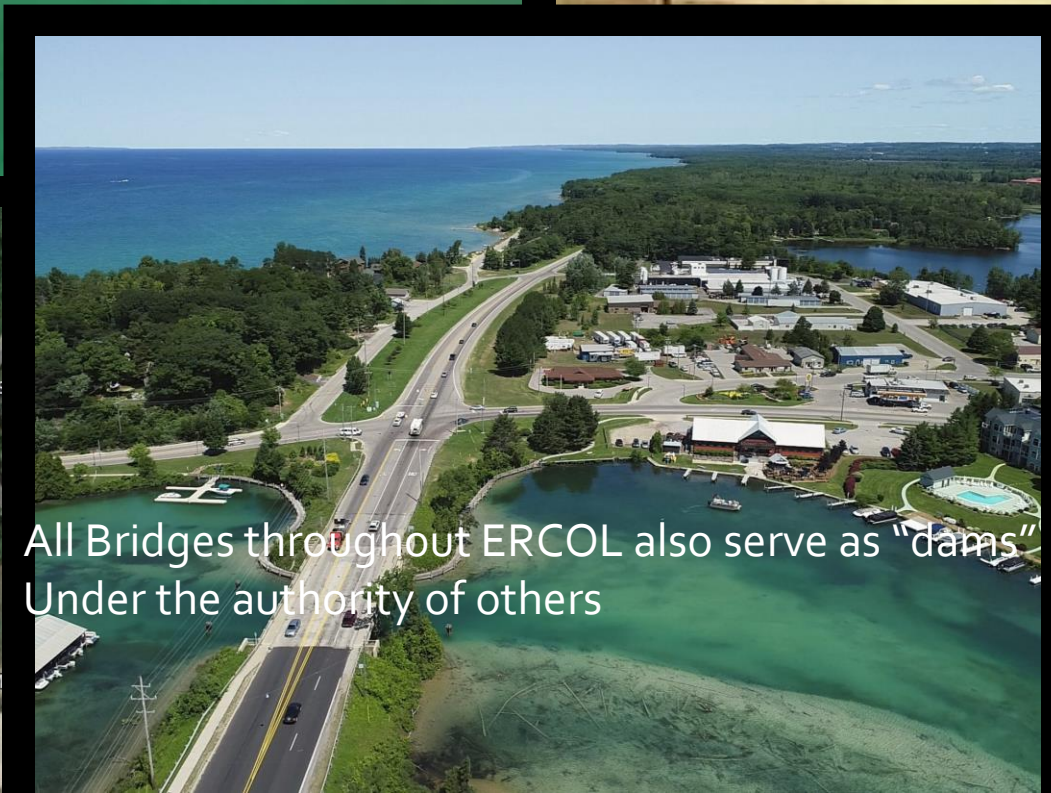
The Operator of Dams

Operator of Dams—Job Description

- Administrator of the Dams Department
- Operator of the Bellaire Dam
- Supervisor of Operations at the ER Dam
- County Administrator of the FERC License
- Contact Person for Lake Level Inquiries







All Bridges throughout ERCOL also serve as "dams"
Under the authority of others



Court Ordered Lake Levels

Elk and Skegemog Lakes Court-Ordered Lake Level (1973)

- Summer Lake Level at 590.8
(April 15–November 1)
- Winter Lake Level at 590.2
(November 1–April 15)

Intermediate Lake Court-Ordered Lake Level (1990)

- Summer Lake Level at 607.15
(May 15–November 1)
- Winter Lake Level at 606.54
(November 1–May 15)

US Datums

- A surface to which elevations, heights, or depths on a map or chart are related.
- Vertical Datums:
 - ✓NGVD 29 – (IL Court Order and Current Flood Maps)
 - ✓NAVD 88 – (CL Gauge)
 - ✓IGLD 85 – (LM and EL Court Order)
 - ✓Updated about every 25 – 30 years
- Coming in 2027 – IGLD 2027!
- Expansion allowed for easy conversion.

The Drain Commissioner

- The often-forgotten elected official
- Oversees the County Drains –we have 1
- Responsible for administering laws related to flood protection – more coming soon!
- Allows Counties under 12,000 to transfer and powers to others
- Stormwater management - ACD
- Soil erosion protection - ACD

Drain Commissioner Authority

- Ability to assess the costs of drain work to landowners of the drainage district(s)
- Ability to levy taxes and borrow money without a vote of the people
- Requires a Township Petition and/or Board Resolution

Available Funding Sources

- Act 188 – Public Improvements Act
- Act 342 – County Public Improvement Act
- Part 307 - Lake Levels
- Drain Code

Leslie Meyers

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Follow – Up Study

Draft

**Elk Rapids Chain of Lakes
Hydraulic (HEC-RAS) Analysis and Support
Bellaire (Intermediate) Dam
Elk River Hydroelectric Dam**

**Based upon U.S. Army Corps of Engineers
Hydraulic HEC-RAS Model and Modeling Report June 2022**



Prepared for:

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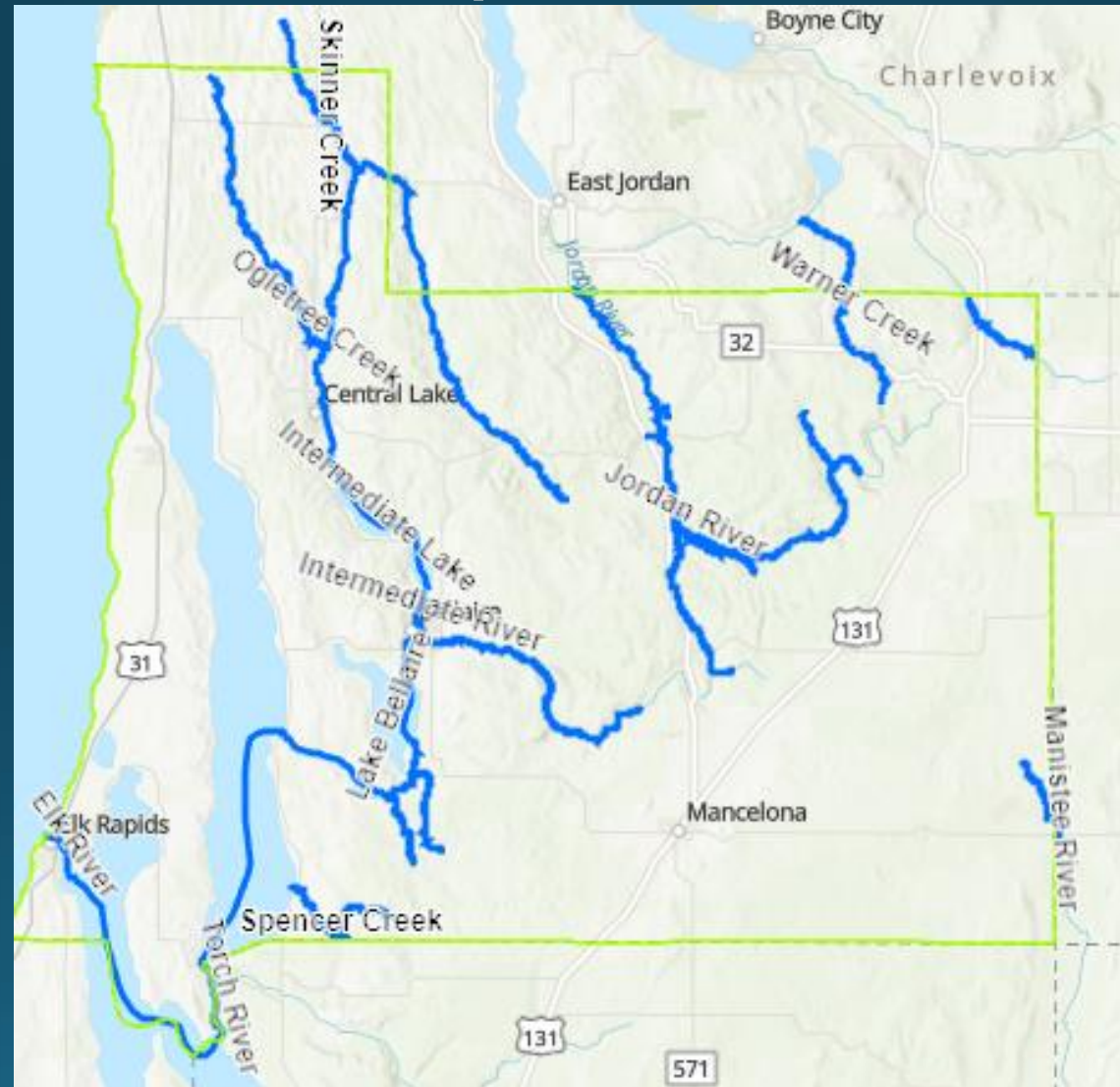
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Flood Map Expansion

- The HEC-RAS been incorporated into the new flood maps for the County
- Currently in review stages
- Due out in Late 2024 or Early 2025
- Third project for Antrim in 10 years
- 1 Township unaffected - Star

<https://arcg.is/0jXK4y0>

2023 Antrim County DRAFT Flood Map



Further information is available for Municipalities

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Volunteer Precipitation Watchers

- Invaluable volunteers throughout the HEC-RAS – needs a refresh
- CoCoRaHS (pronounced KO-ko-rozz) is a grassroots volunteer network of backyard weather observers working together to measure and map precipitation in their local communities.
- Done by using low-cost measurement tools, stressing training and education.
- NWS – Gaylord will provide the training
- Ideally looking for a total of 12.

The Next Steps.....