

A topographic map of Michigan, showing the state's outline and surrounding terrain. The map uses a color gradient from green to brown to represent elevation. The text is overlaid on the map in a yellow, sans-serif font.

Legal Framework for Water Withdrawal Regulations

Southwest Michigan Water Resources Council
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Objective: Understanding Legal Framework Behind Water Withdrawal Regulations

- Early Basin Wide Agreements
- Great Lakes Compact
- Part 327, Great Lakes Preservation

Great Lakes Charter

- 1985 agreement between Great Lakes States and Provinces
- They agreed to enact legislation establishing programs to regulate diversion and consumptive use of Basin water resources
- New or increased withdrawals 100,000 gpd; total diversions or consumptive uses > 2 MGD

Problems



- Diversions of water from the Great Lakes Basin
 - Use conflicts within Basin
 - Areas with little available water
 - Sensitive surface water bodies

Annex 2001

- Great Lakes Charter Amendments
- States & Provinces agreed to enter into Basin-wide binding compact < 3 years
- Decision making standard for water withdrawals
- Minimize Basin water loss
- No significant adverse individual or cumulative impacts

Great Lakes-St. Lawrence River Basin Water Resources Compact

- 2005 interstate compact between Great Lakes States
- Created Great Lakes-St. Lawrence River Basin Water Resources Council

Great Lakes Compact

- Collaborative strategy to collect & apply scientific information
- Transfer & apply scientific research to water conservation & water use efficiency

Great Lakes Compact

- Each party regulates new or increased withdrawals, consumptive uses & diversions $> 100,000$ gpd
- Regional review & approval of any proposed new or increased consumptive use of ≥ 5 MGD

Diversions

- All new or increased diversions are prohibited with exceptions including:
- Communities & counties straddling Basin watershed boundary
- Intra-Basin transfers

Exception Standards

- Avoid need thru conservation & efficiency?
- Reasonable quantities for purpose
- Return water to Basin, less consumptive use

New or Increased Withdrawal & Consumptive Use Standards

- $\geq 100,000$ gpd
- Return all water withdrawn, less consumptive use, to source watershed
- No significant impacts to water quality, quantity & water dependent natural resources

Decision Making Standards continued

- Efficient use of water supplies
- Balance economic & social development with environmental protection

Decision Making Standards continued

- States & Provinces can be more restrictive
- Baseline for existing withdrawals & existing system capacities when Compact took effect

Ratification

- The Compact was ratified in Michigan as Part 342 of the NREPA (2008 PA 190) on July 9, 2008
- The Compact was signed by the President in October 2008

Groundwater Conservation Advisory Council

- Created in 2003
- Design assessment process for all large-quantity water withdrawals
- Collaborative effort
- Peer reviewed

Part 327, Great Lakes Preservation, of the NREPA

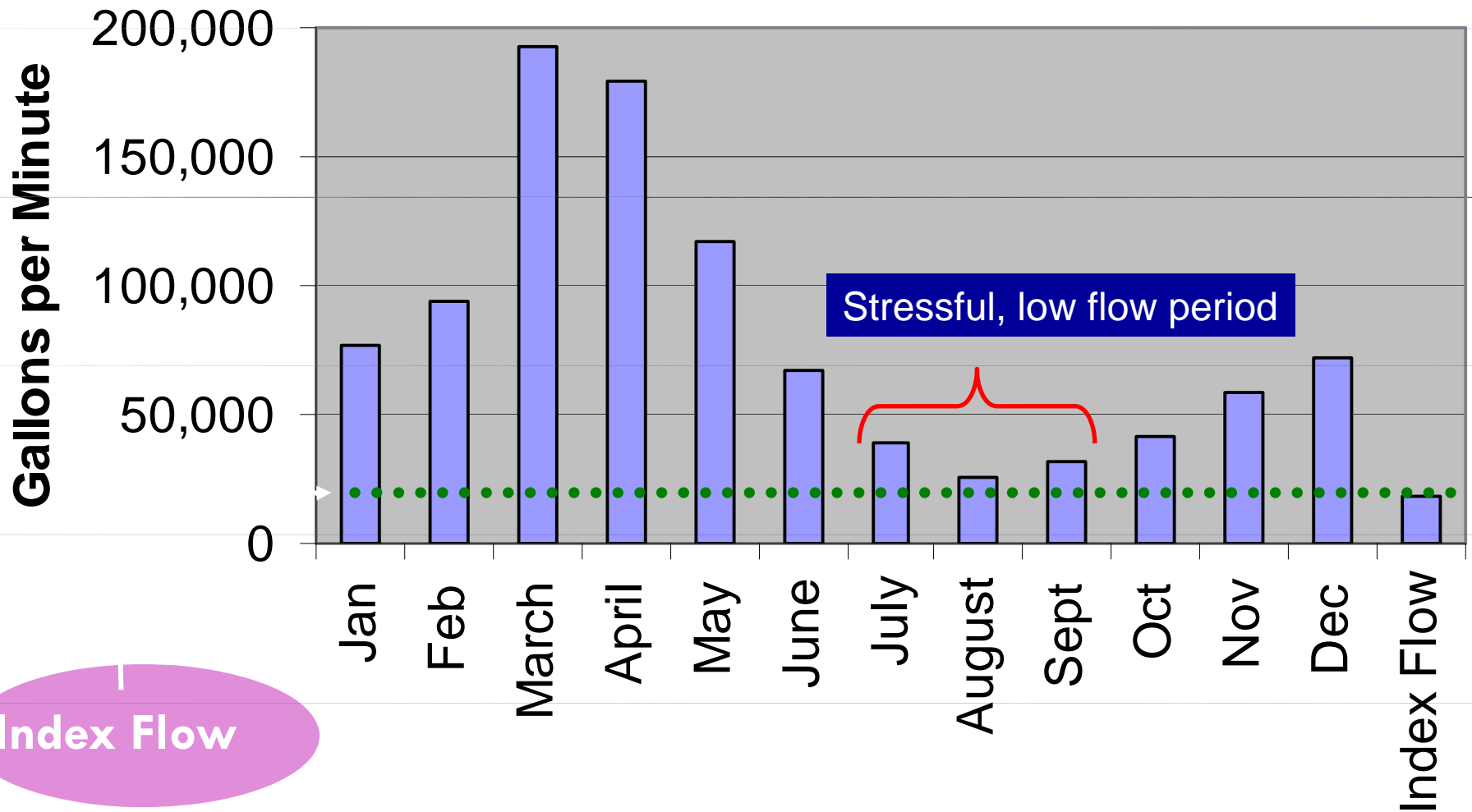
- Prohibits diversions outside Great Lakes Basin
- Large quantity withdrawals (LQW) $\geq 100,000$ gpd (70 gpm) must register using Water Withdrawal Assessment Tool (WWAT)
- Any new or increased LQW $\geq 100,000$ gpd (70 gpm) prohibited from causing Adverse Resource Impact (ARI)

Index Flow

- Index flow is the median flow for lowest summer flow month (typically August)

Looking Glass River near Eagle

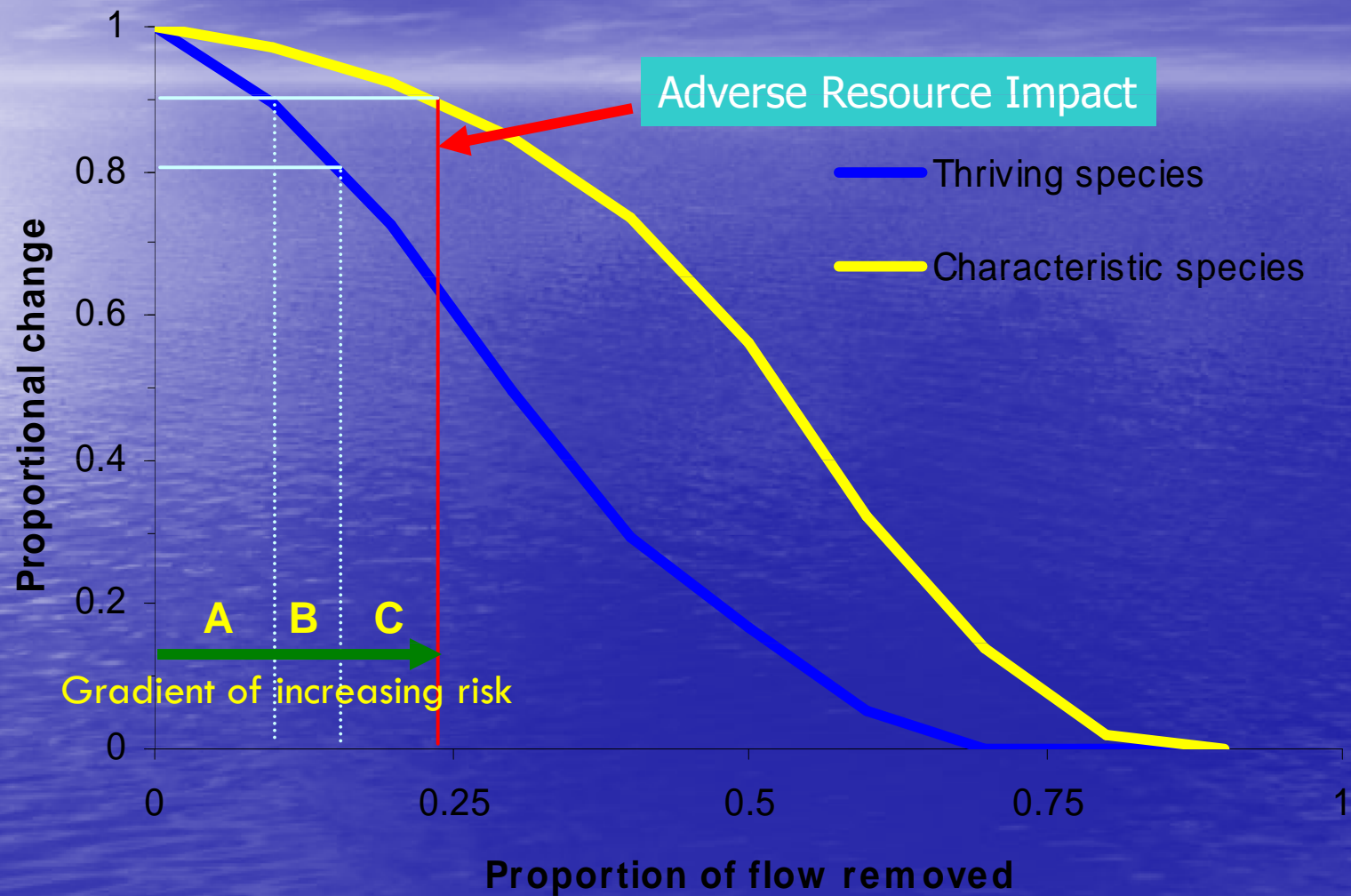
Mean Monthly Flows



Index Flow

Zones trigger management action

- B- Locals notified
- C- Users committee form



Michigan's New Water Management Process

Provides great efficiency to the public

Step 1 is Internet-based Screening Tool; automatic calculations based on statewide models; if proposal approved can self-register online in minutes.

WATER WITHDRAWAL ASSESSMENT TOOL

Home |

Related Articles

- Education Material
- Tool Introduction

Collaborators

- Department of Environmental Quality
- Department of Natural Resources
- United States Geologic Survey
- Institute of Water Research

WWAT Information

- Coming Soon!

Finding the Location of Your Water Withdrawal

Please select one of the following options for locating the position of your water withdrawal.

Locate by Address

Enter the address and zip code at or near the withdrawal location. Please spell street names correctly in order to ensure system accuracy.

Address:

Zip Code:

Locate by Navigation

To select the county where the water withdrawal will occur, click the map or choose from the drop down menu.

Baraga

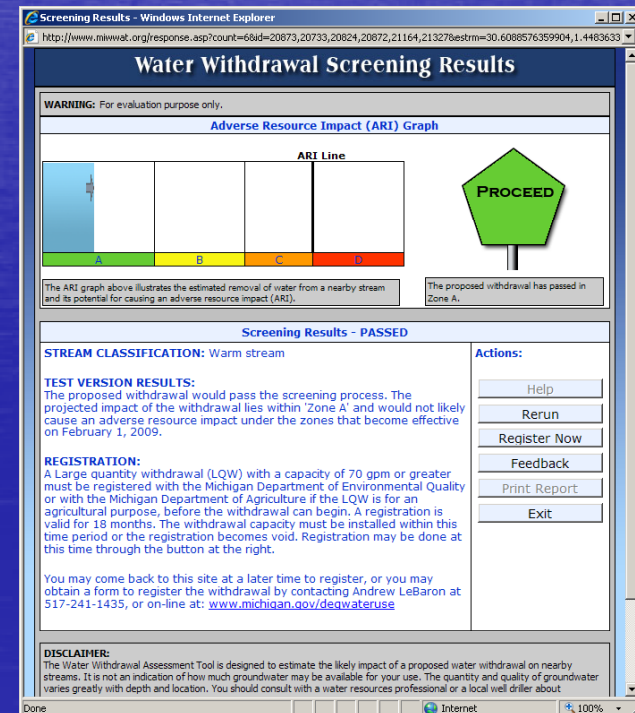
Locate by Latitude and Longitude

Enter the latitude and longitude coordinates at or near the withdrawal location. Please input data correctly in order to ensure

Decimal Degrees

Degree Minute Second

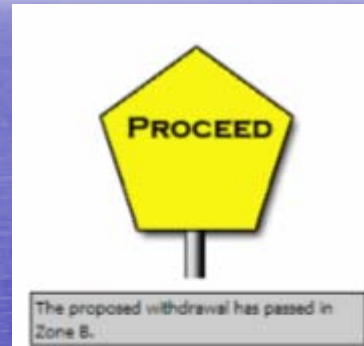
Latitude(Y):



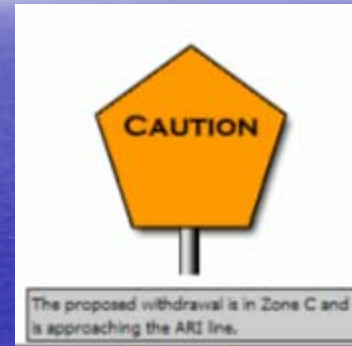
Zone A



Zone B



Zone C



Zone D



- Zones are set by law
- Numerical values are different for each stream type

Zone A Withdrawal

- Register and proceed

Zone B Withdrawal

- Register and proceed
- Cold-transitional system: site-specific review required
- DEQ notification: conservation district, regional planning agency & other groups that have requested notification

Zone C

- Site-specific review required
- Applicant self-certifies using environmentally sound & economically feasible conservation measures
- DEQ notifies large quantity users (of the same water source); local governments & groups that requested notification

Zone D

- Site specific review required
- Cannot proceed if confirmed Zone D

Michigan's New Water Management Process

Provides great efficiency to the public

Step 2 is Site Specific Review by agency staff; uses best available site hydrogeologic data and expert knowledge to calculate Index Flow and stream depletion, and confirm stream classification; completed within 10 days of application. Applicant may provide additional data and analysis. Can the proposed withdrawal be modified by changing the pumping schedule, withdrawal location or well depth to meet the applicant's needs and avoid an ARI?

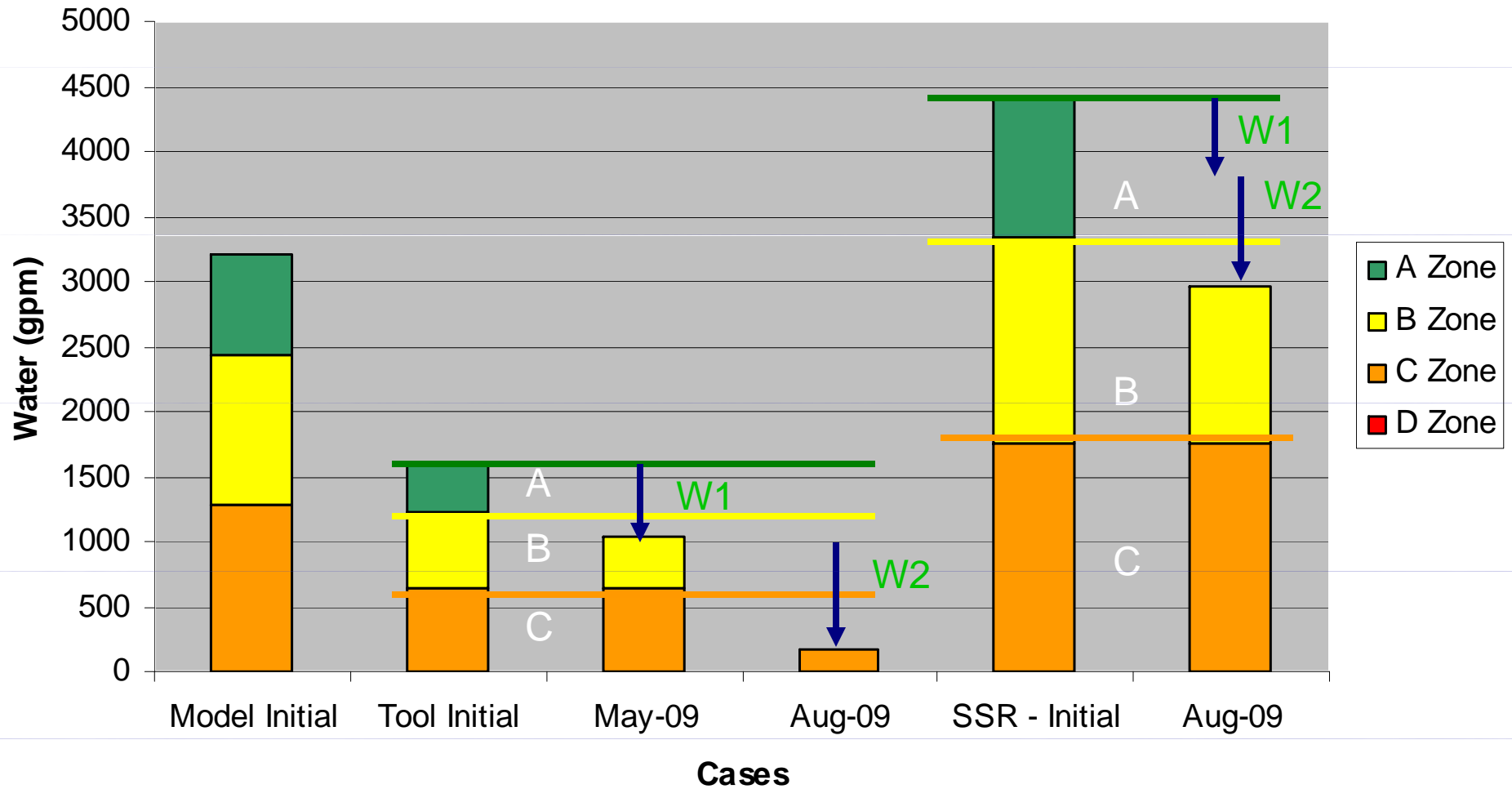


Site Specific Reviews

- As a safety factor, the WWAT uses only $\frac{1}{2}$ the Index Flow
- Site Specific Reviews remove this safety factor
- Recalculated Index Flow then used in tracking future depletions

Example of how SSR affects Accounting

Water Availability (above ARI)



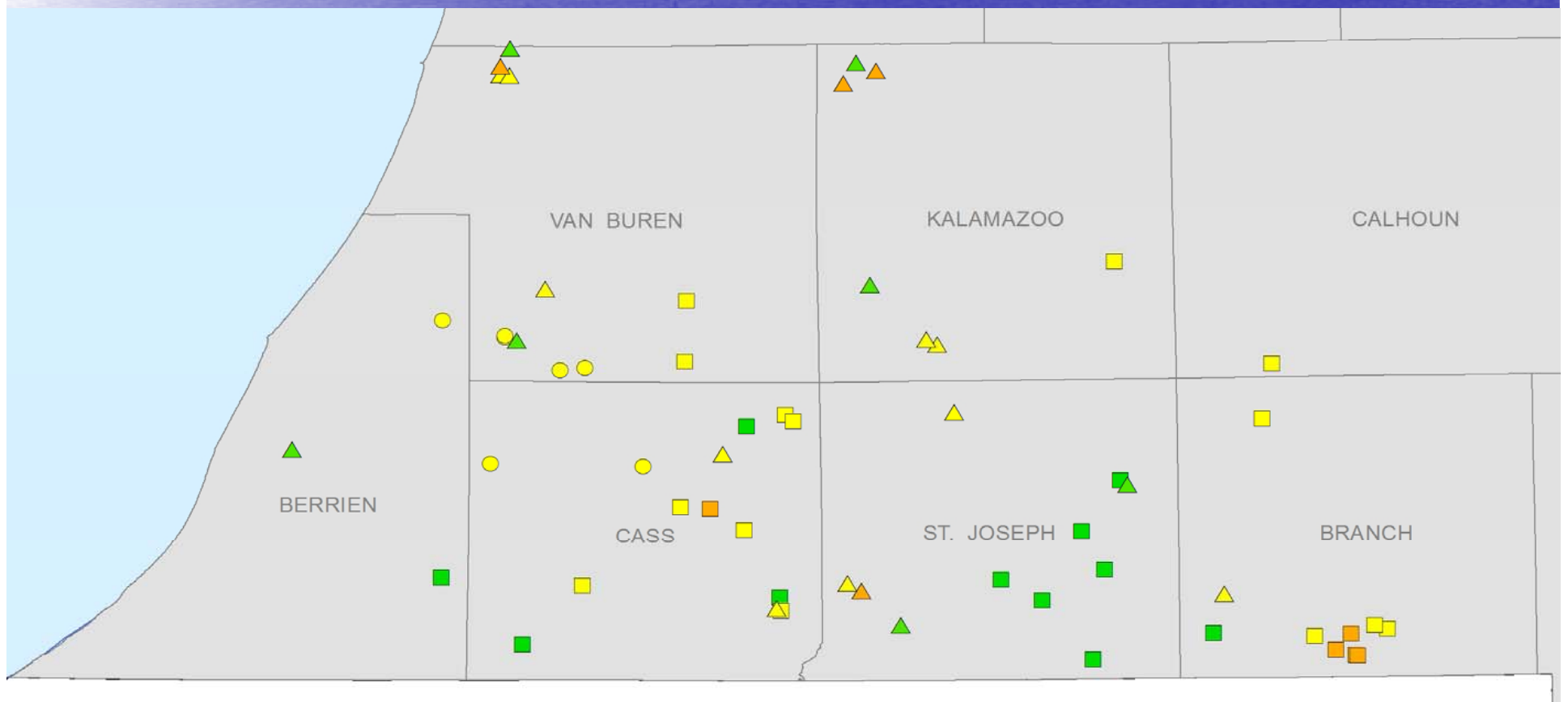
Site Specific Reviews

○ WWAT Zone B (cold-transitional)

□ WWAT Zone C

△ WWAT Zone D

Colors indicate SSR Zone (green = A, yellow = B, orange = C)



Annual Water Use Reporting & Fees

- Registered user reviews applicable environmentally sound & economically feasible water conservation measures
- \$200 annual water use reporting fee
- Farms, municipal water supplies & withdrawals of < 1.5 MGD exempt from reporting fee

Generic Water Conservation Measures

- Sector specific
- On DEQ's Water Use web page
- Zone C withdrawals must self-certify they're using water conservation measures
- Annual reporting under Great Lakes Compact

Permits

- New withdrawals > 2 MGD
- Increased withdrawals > 2 MGD
- New or increased withdrawals > 1 MGD for Zone C site specific review
- New or increased withdrawal resulting in intrabasin transfer > 100,000 gpd

Permit Review Criteria

- Return water, less consumptive use, to source watershed
- No individual or cumulative ARI
- Intrabasin transfers comply with Section 4.9 of Great Lakes Compact

Summary

- Great Lakes Compact 1st effective means of regulating diversions from Great Lakes Basin, managing water use within Basin & promoting water conservation measures
- Part 327 complies with the Compact

Summary continued

- The WWAT effective screening tool to flag LQWs that may cause an ARI
- WWAT allows users to register LQWs that aren't likely to cause an ARI without having to request DEQ review
- The site specific review process allows DEQ to review available site specific information & work with the applicant to modify projects to avoid ARI

“We’ll never know the worth of water till the well go dry.”-
Scottish Proverb

“Whiskey’s for drinking, water’s for fighting about.”-Mark Twain