

# MICHIGAN WATER USE UPDATES

---

Laura Campbell, Michigan Farm Bureau  
Co-Chair, Water Use Advisory Council

2022 Winter Potato Conference  
February 3, 2022

# How do we regulate water in Michigan?

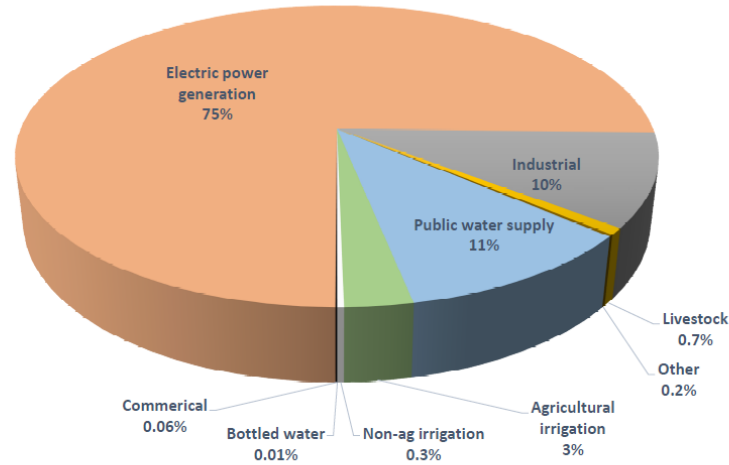
- Great Lakes Compact
  - Responsible water use regulation
  - Water use reporting
- Most Great Lakes states:
  - Issue permits for large quantity withdrawals inside the basin
- Michigan:
  - Created Water Withdrawal Assessment Program
- Why should potato growers care?
  - Irrigation is CRUCIAL to potato production, and landowners are responsible for compliance



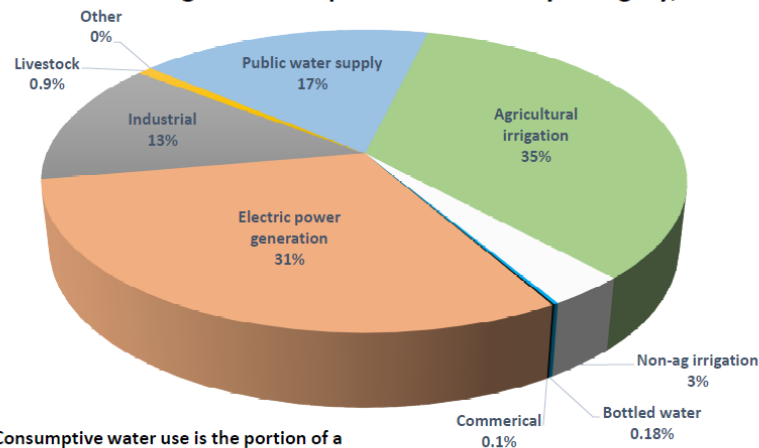
Map by Great Lakes Information Network

# How is water used in Michigan?

Michigan Total Water Use by Category, 2019



Michigan Consumptive Water Use by Category, 2019



\* Consumptive water use is the portion of a water withdrawal that is not returned locally due to evaporation, incorporation into products, or transport out of the Great Lakes Basin.



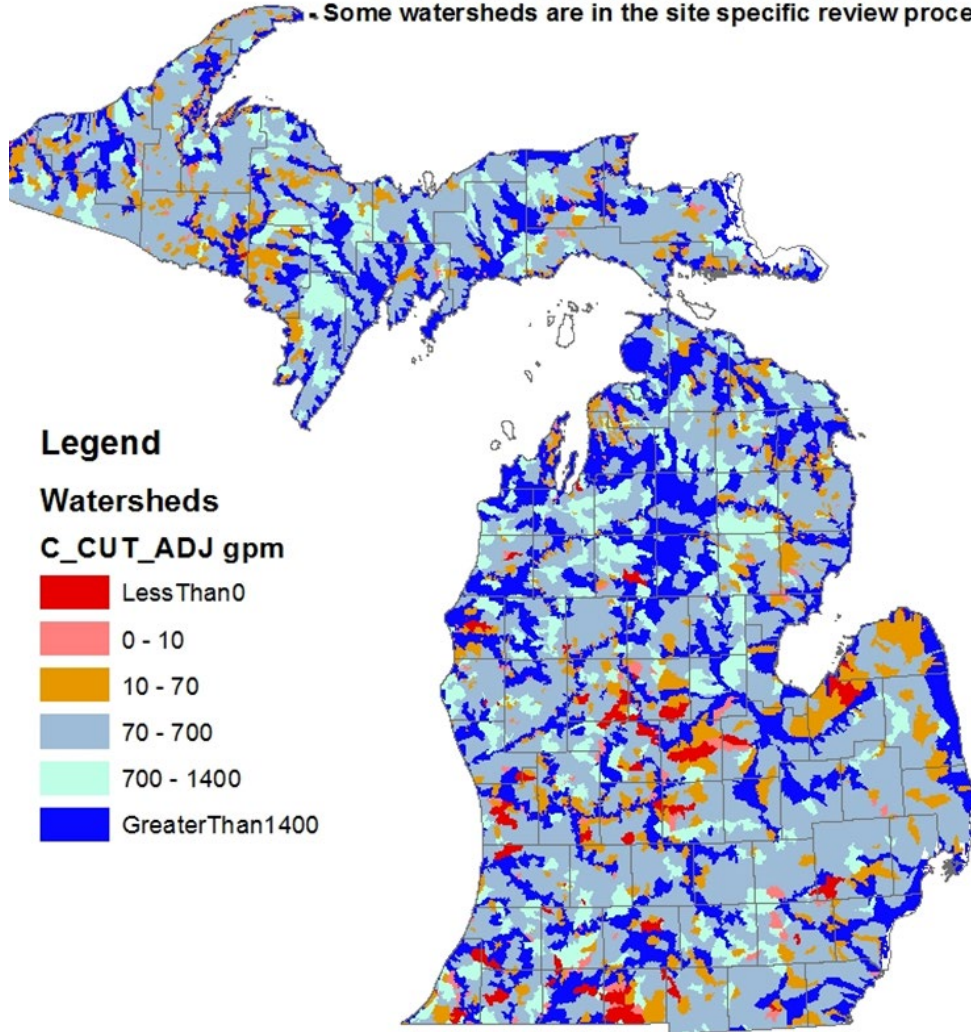
Consumptive uses (not returned to the watershed):

- Agricultural irrigation – 35%
- Electric generation – 33%
- Public water supply – 17%
- Industrial use – 13%
- Non-agricultural irrigation – 3%
- Livestock watering – 0.9%
- Bottled water – 0.18%
- Commercial – 0.1%

Water use in Michigan graph by EGLE

# Water Withdrawal Assessment Program

- Does not show bedrock aquifer availability
- Many watersheds have not used the 50% reserve
- Some watersheds are in the site specific review process



Map by Steve Miller, MSU

Science-based program:

- Online registration
- Models potential impacts
- Site-specific review

Challenges:

- Not enough data
- Models are not accurate enough
- Regulatory decisions based on not enough information



# Water Use Advisory Council

- Recommends research, funding, program improvement to EGLE and Legislature
- Members: business, agriculture, utilities, environmental groups, lake and stream associations, local & state government, technical advisors
- Recommendations available at: [https://www.michigan.gov/documents/egle/egle-wrd-wateruse-WUAC\\_2020\\_council\\_report\\_711968\\_7.pdf](https://www.michigan.gov/documents/egle/egle-wrd-wateruse-WUAC_2020_council_report_711968_7.pdf)



Photo by Michigan Valley Irrigation

# Council Recommendations: Data Collection



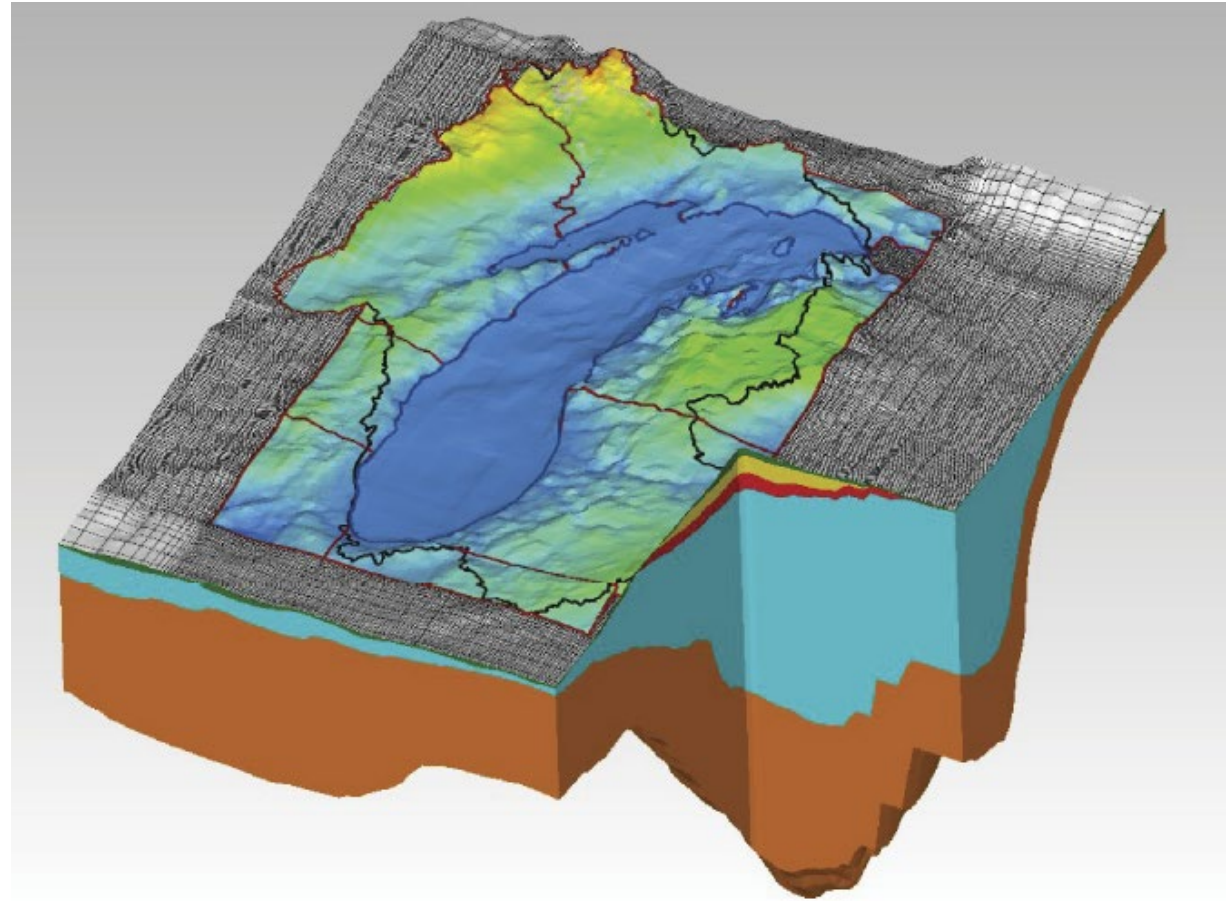
Photo by Michigan Oil & Gas News

- Create database for all current water data
- Well driller data training
- More streamflow gages
- Geologic data collection and mapping
- Groundwater monitoring well network



# Council Recommendations: Modeling

- Create regional models
  - Hydrologic Framework
- Compile Key Aquifer Properties
  - Test where model accuracy can be improved
- 3-D Glacial Aquifer Maps
  - Test model to identify glacial aquifer properties



Model by U.S. Geological Survey

# Additional Recommendations:

- Improve online registration and outreach on water withdrawal registration



Photo by Michigan State University

- Add two MSU Extension Irrigation Educators to provide information and resources on water use efficiency and conservation
- Complete Cass County water use study on new data collection and modeling processes
- Develop protocols for water user committees and collecting new data



# Funding:

- SB 488: \$3 million (in state money) annually to Michigan Geological Survey for geologic and water resource data collection
- SB 565: \$20 million (in federal money) for Water Use Advisory Council recommendations and \$15 million for geologic and water resource data collection
- KEY: These amounts may change!
- Water Use Advisory Council has met with Legislature and Budget staff to discuss recommendations and funding needs
- Why is this important?
  - Accurate data collection and validated models will ensure we both protect water resources AND allow responsible water use where farmers and other users need it

# Next Steps:

- Advocate for data collection and model development funding
  - If approved, most would be done by universities, external partners
- Develop next set of recommendations
  - Calculating recharge from irrigation to streams and aquifers
  - Prioritizing areas for stream gages and groundwater monitoring wells
  - Outreach and communication

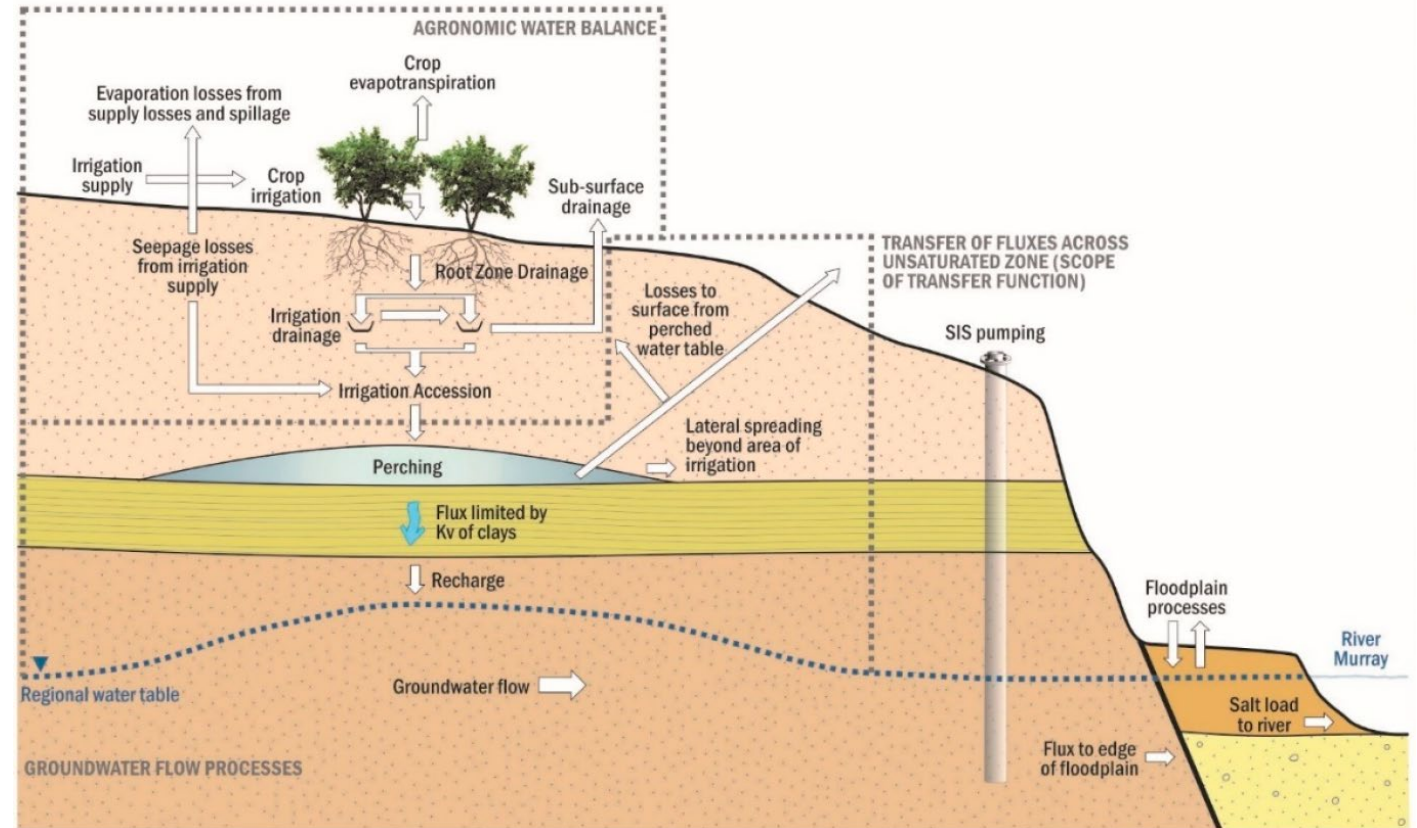


Illustration by MDPI Water

# THANK YOU! QUESTIONS?

---

Laura Campbell, Michigan Farm Bureau

Cell: 517-420-7936

[lcampbe@michfb.com](mailto:lcampbe@michfb.com)

[www.michiganfarmbureau.com](http://www.michiganfarmbureau.com)