

# CAFO'S AND TROUT

MITU's Response to Large Scale  
Industrial Agriculture

# WHY DOES MITU CARE ABOUT CAFOS?

- What is a CAFO?
- Example: 1 dairy cow makes 6-7 gpd milk and 18 gpd of manure;
  - “the dairy product they don’t tell you about” – NPR Radio
- 2009 – 223 Permitted CAFOs in MI (per DEQ)
- First came into focus in July 2006 - Tyler Creek
- TU (Schrems, Perrin, Kalamazoo, and Oakbrook) and CRWC members

# What has MITU done so far?

- tried to address issues on Tyler Creek, not been easy
- developed position paper for MITU regarding CAFOs
  - important excerpts
- commented on the GAAMPs to MDA
- developed web page on MITU site
- developing comments for MDNRE on Draft NPDES General Discharge Permit for CAFOs
- Worked with MSU and MITU volunteers to develop GIS based models of CAFOs in MI

# WHAT'S "G.I.S."?

- GIS – Geographic Information Systems - intelligent maps or maps with databases attached.
- VAST quantities of geospatial data is available for free on State CGI website, used for geospatial, -political, -environmental, -technical, -social evaluations
- Examples of data – topographic, land use, water bodies, political boundaries, census data, soil maps, plats, aerial photos, utilities, wetlands, stream types by temperature, stocking and shocking results data, temperatures, etc. etc. etc.
- Used by municipalities, universities, businesses, consultants, federal, state and local governments, EVERYONE including charitable groups such as TU to better plan for the future.

# MITU'S CAFO GIS STUDY

- We used it to evaluate potential threat that CAFOs pose to trout streams in MI

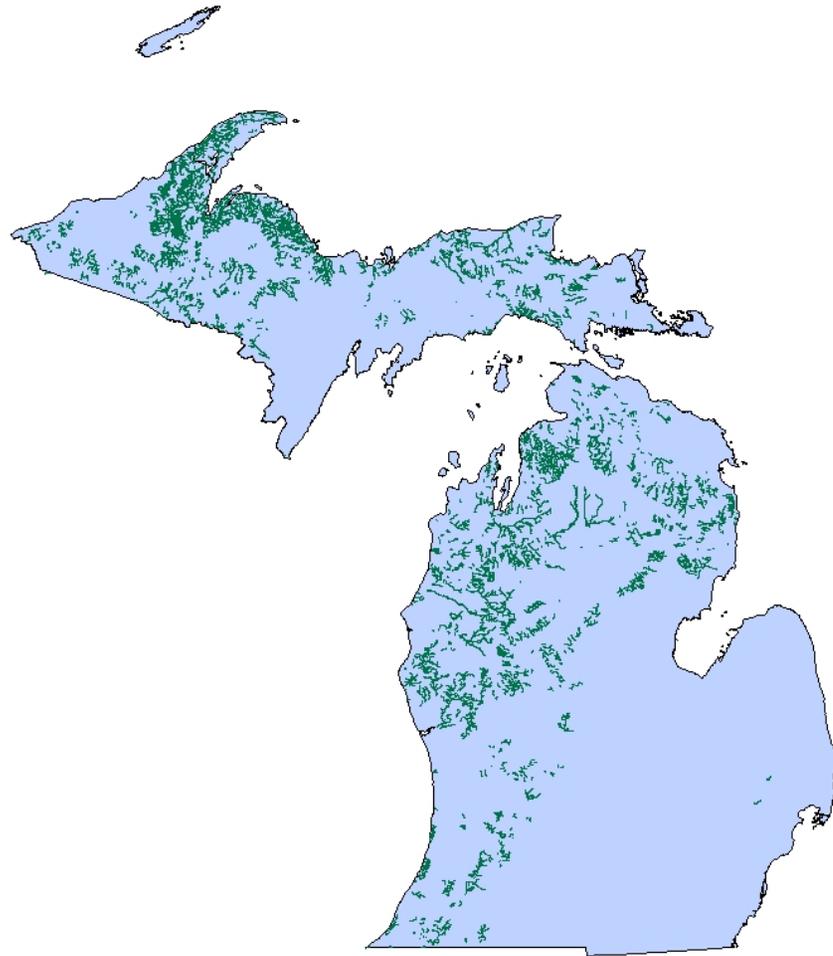
## Michigan Stream Classification Layer



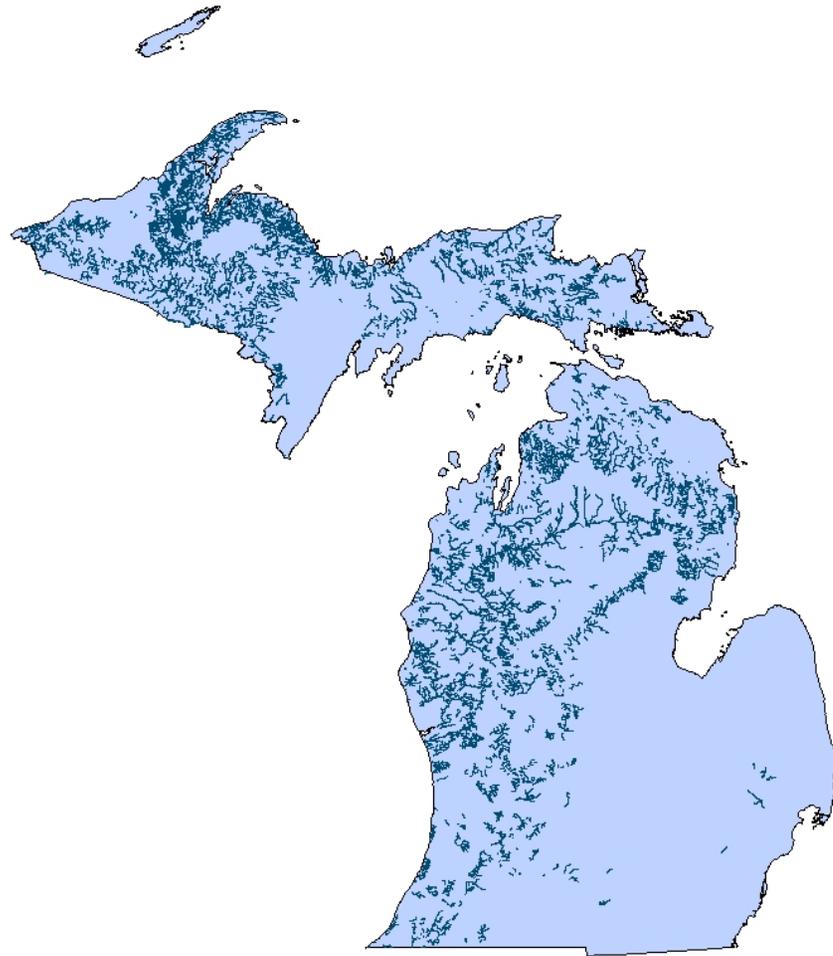
### Legend

— NHDPlus\_Mlclass\_arc\_fishsegment

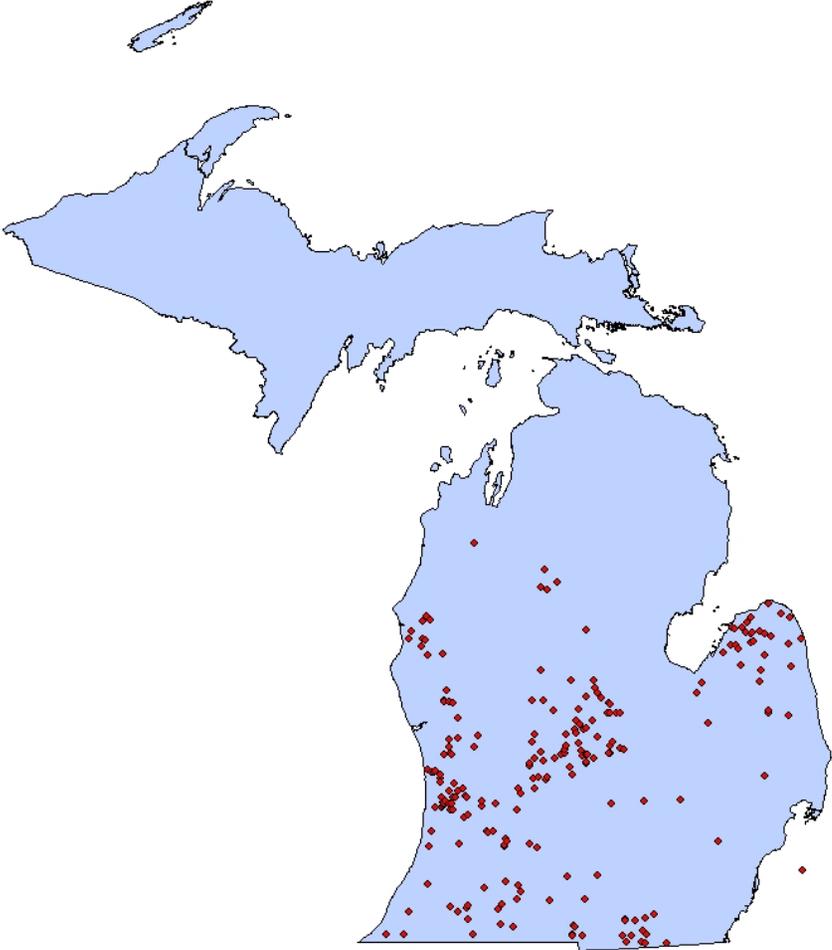
## Cold Streams in Michigan



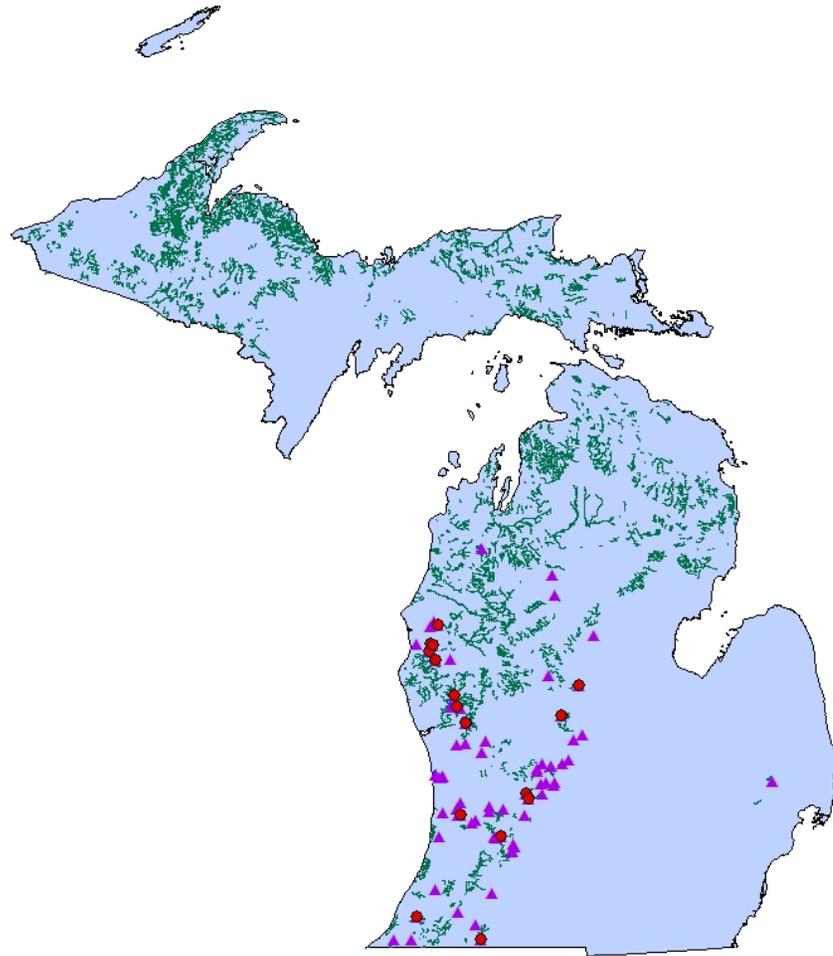
## Cold Transitional Streams in Michigan



All CAFOs in Michigan



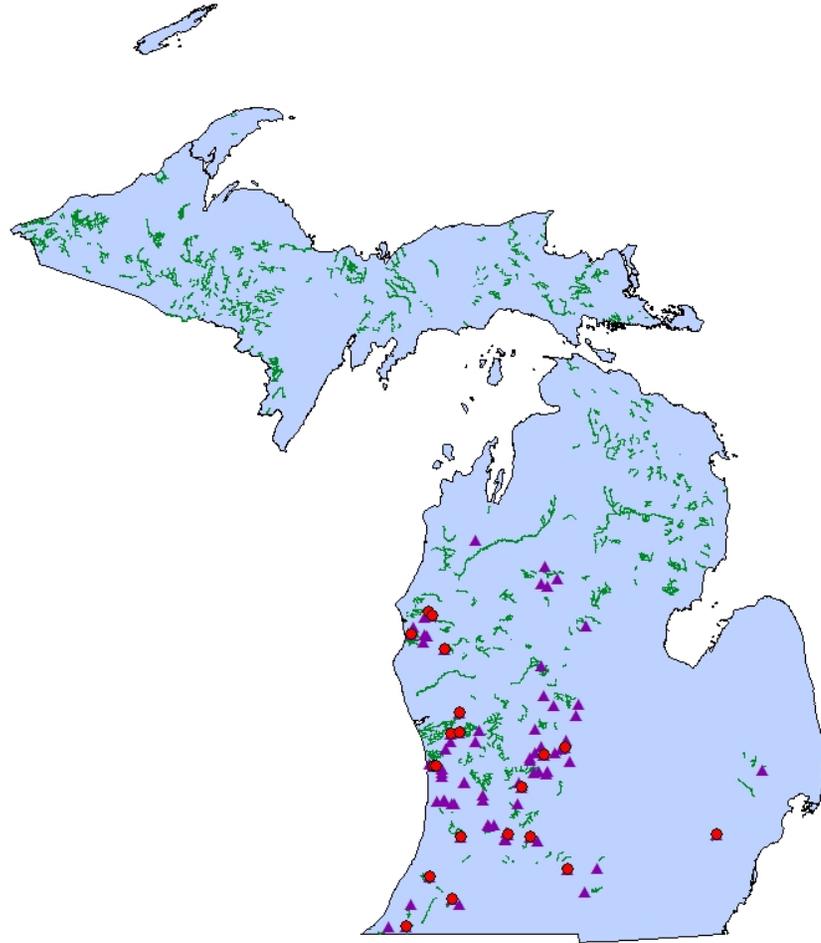
## CAFOs Near Cold Streams in Michigan



### Legend

- within\_1\_mile\_cold
- ▲ within\_5\_miles\_cold

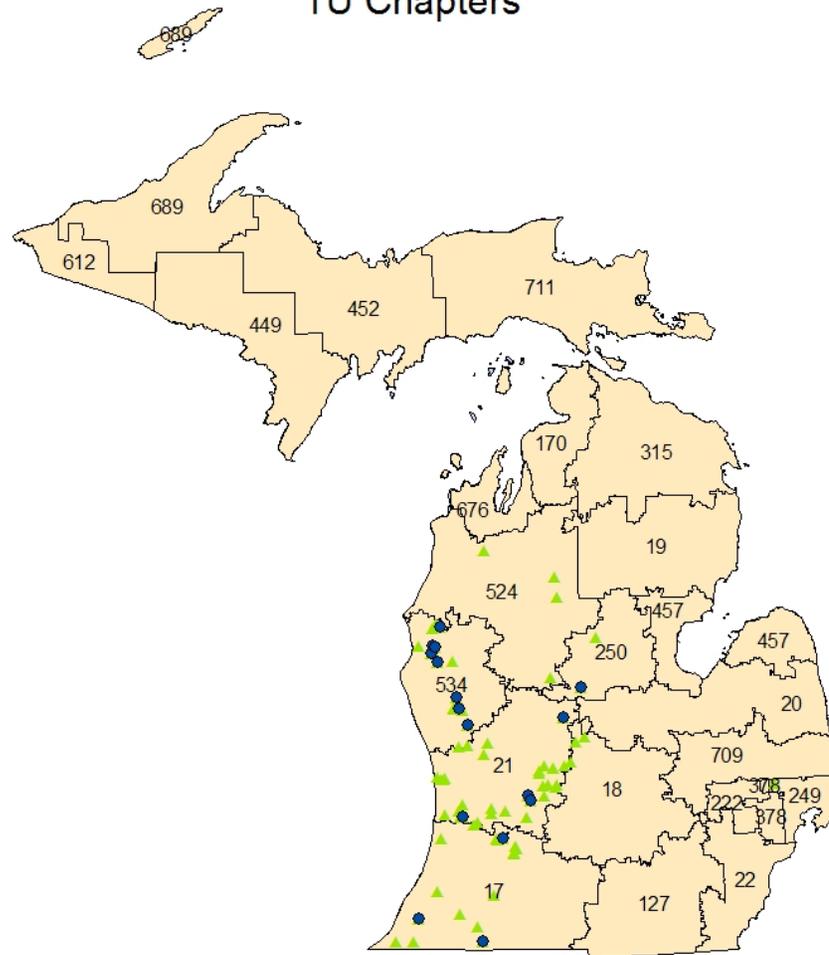
## CAFOs Near Cold Transitional Streams in Michigan



### Legend

- within\_1\_mile\_transitional
- ▲ within\_5\_miles\_transitional

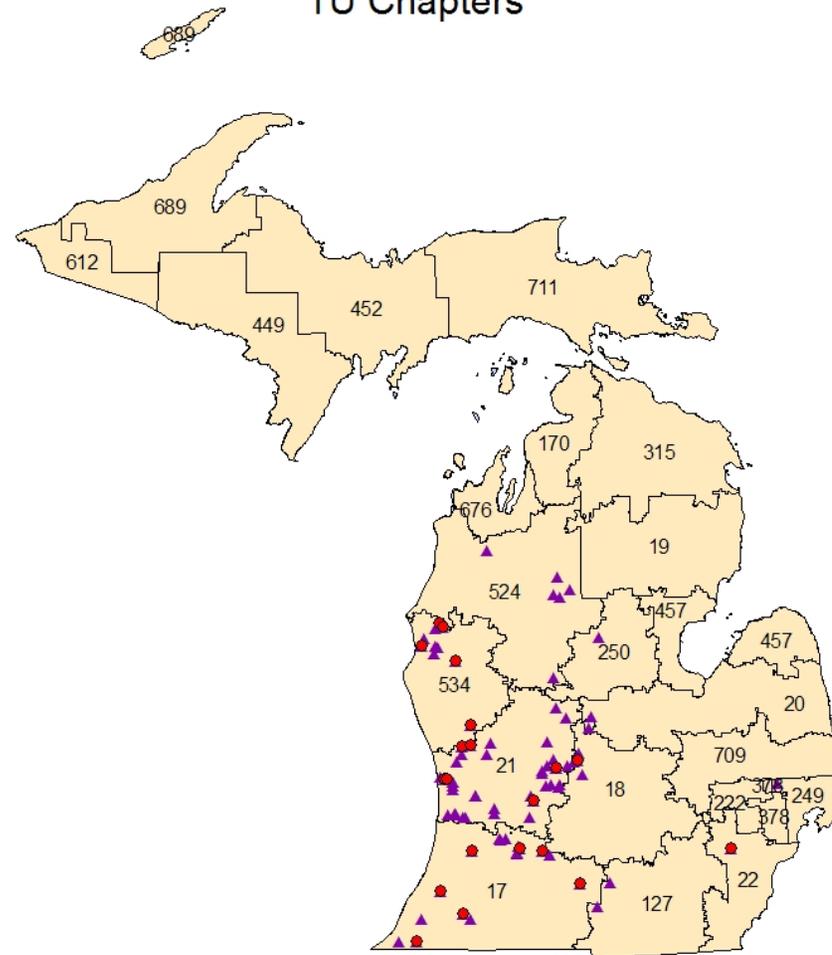
# CAFOs Near Cold Streams in Michigan's TU Chapters



## Legend

- ◆ within\_1\_mile\_cold
- ▲ within\_5\_miles\_cold

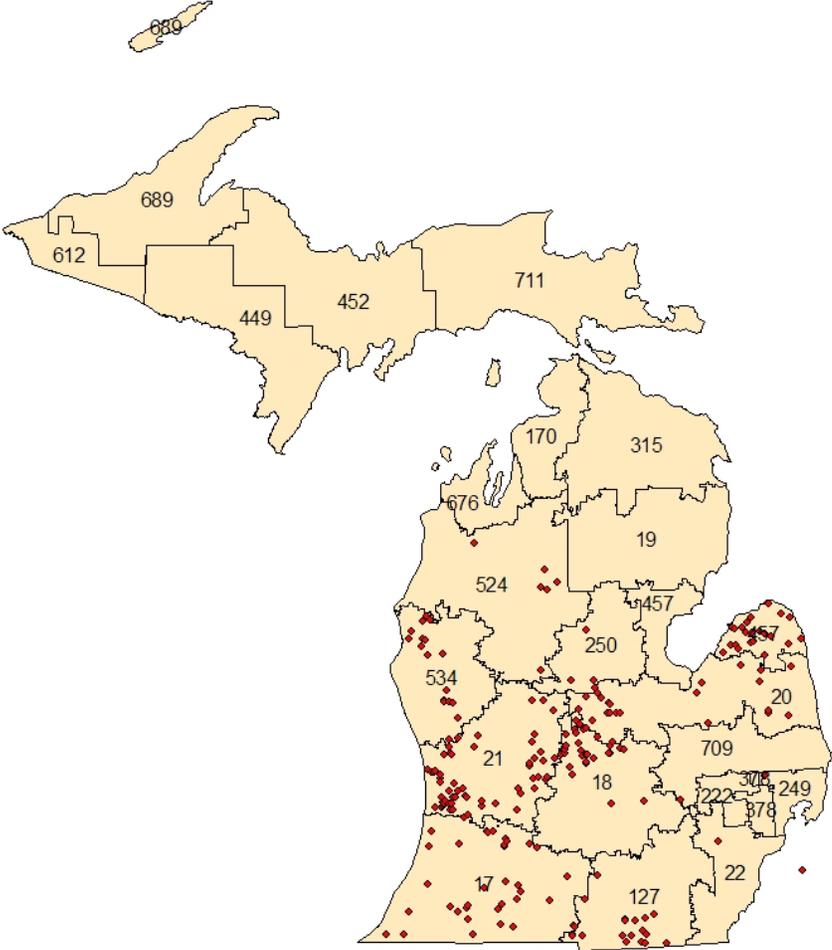
## CAFOs Near Cold Transitional Streams in Michigan's TU Chapters



### Legend

- ◆ within\_1\_mile\_transitional
- ▲ within\_5\_miles\_transitional

# All CAFOs in Michigan



# CAFOs Near Trout Streams

Distance	Coldwater	Cold- Transitional	Both Cold & Cold- Transitional	Total (a+b-c)	% of 223
w/in 1 mi	16	21	2	35	16%
w/in 5 mi	75	86	54	107	48%

# CAFOs by TU Chapters

Chapter Name	w/in 1 mile of cold	w/in 1 mile cold transitional	w/in 5 miles cold	w/in 5 miles cold transitional
Kalamazoo Valley	3	7	18	17
Perrin Lansing	0	1	3	5
Schrems	4	6	31	42
Paul Young	0	1	0	1
Ann Arbor	0	0	0	2
Clinton Valley	0	0	1	1
Leon Martuch	1	0	2	1
Pine River	0	0	4	6
Muskegon White River	8	6	16	11
Total	16	21	75	86

# Now the **REALLY SCARY** thing...

- The CAFOs are the ones that we actually have some sort of handle on....
- We know **ABSOLUTELY NOTHING** about what is happening on the smaller AFOs...
- There are no regulations on them like on CAFOs...
- And, they have the full protection of the Right-to-Farm Act.

# Future work

- further refine GIS model, possibly on our own
- place results on web page
- develop comments as needed regarding individual CAFOs (permits, violations)
- attempt to work with CAFOs and interested parties to protect trout streams
  - DEQ request for assistance with grassroots water quality sampling program
- Develop and issue response instructions in event of observed degradation or fishkill