MI Department of Environmental Quality (DEQ)

Water Resources Division (WRD)

Water Quality Monitoring Requests Webinar

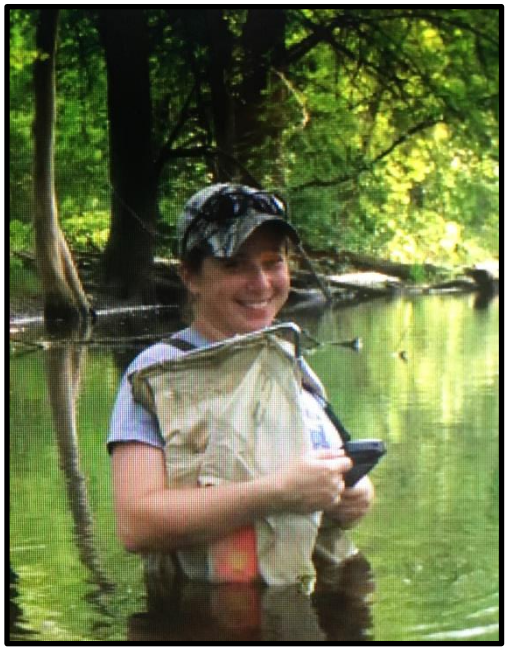
Background on the Process and How to Submit a Request

Housekeeping

- All lines will be muted
- Questions can be sent to us via the question/chat box
- We will use polls during the webinar
- A short survey will be sent after the webinar - please respond
- We will record the webinar and post it online

Today's Presenters

Jeff Varricchione



Kelly Turek

Lee Schoen

Audience Survey

Michigan

- **Michigan is physically defined by, and easily identifiable because of,**

water

- **Rivers and Streams**
- **Inland Lakes**
- **Great Lakes Shoreline**
- **Wetlands**
- **These high-quality waters are a major driver of:**
  - **Recreation, Tourism, Industry, overall Quality of Life**

Designated Uses

At a minimum, all surface waters of the state are designated and protected for all of the following uses:

- **Agriculture**
- **Navigation**
- **Industrial water supply**
- **Warm water fishery**
- **Other indigenous aquatic life and wildlife**
- **Partial body contact recreation**
- **Fish consumption**

R 323.1100[1][a]-[g] of Part 4 Rules, Water Quality Standards (of Part 31, Water Resources Protection, of PA 451 of 1994)

Strategy

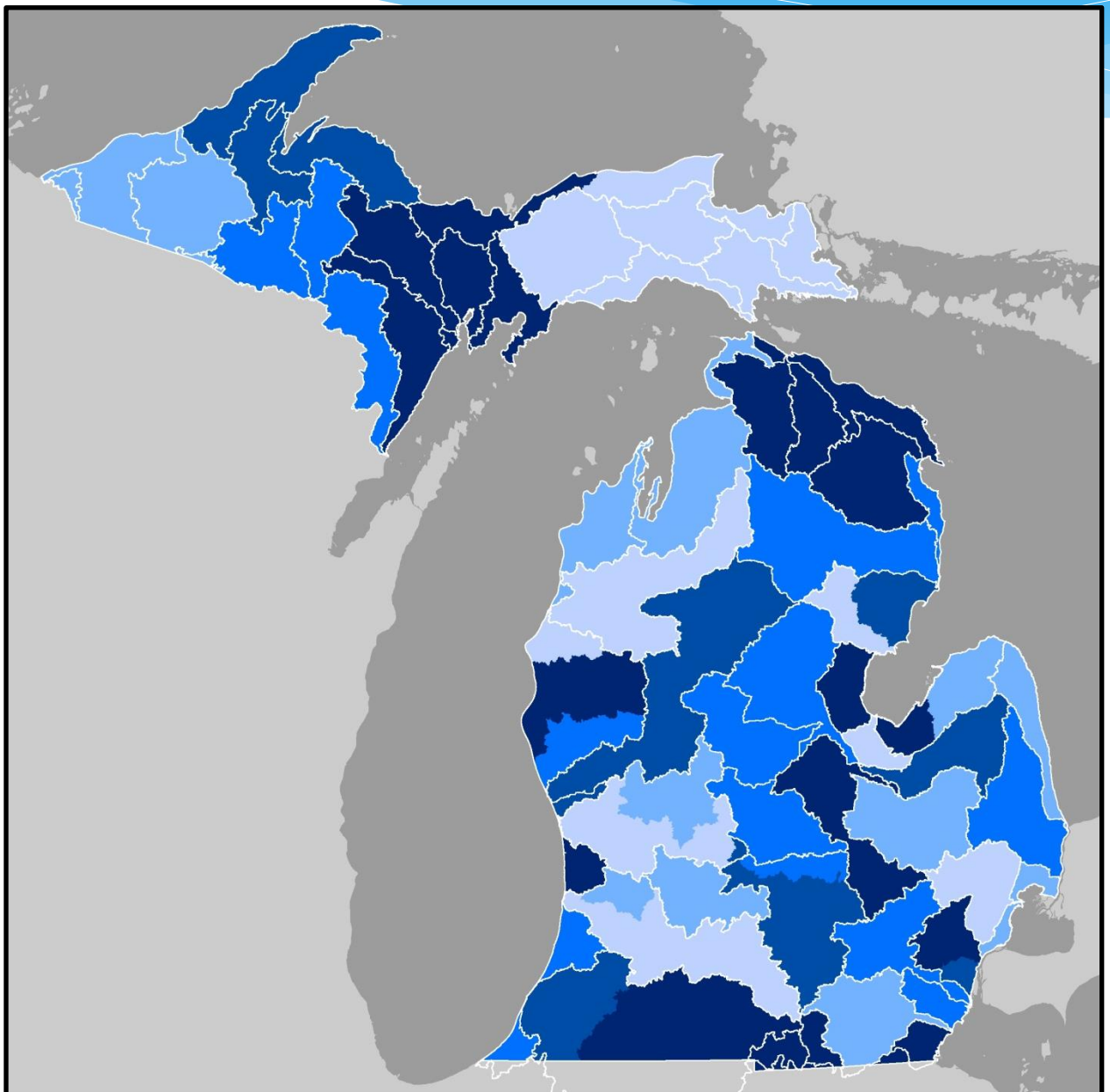
MDEQ-WRD solicits monitoring recommendations to support implementation of its Strategy.

Goals of Strategy:

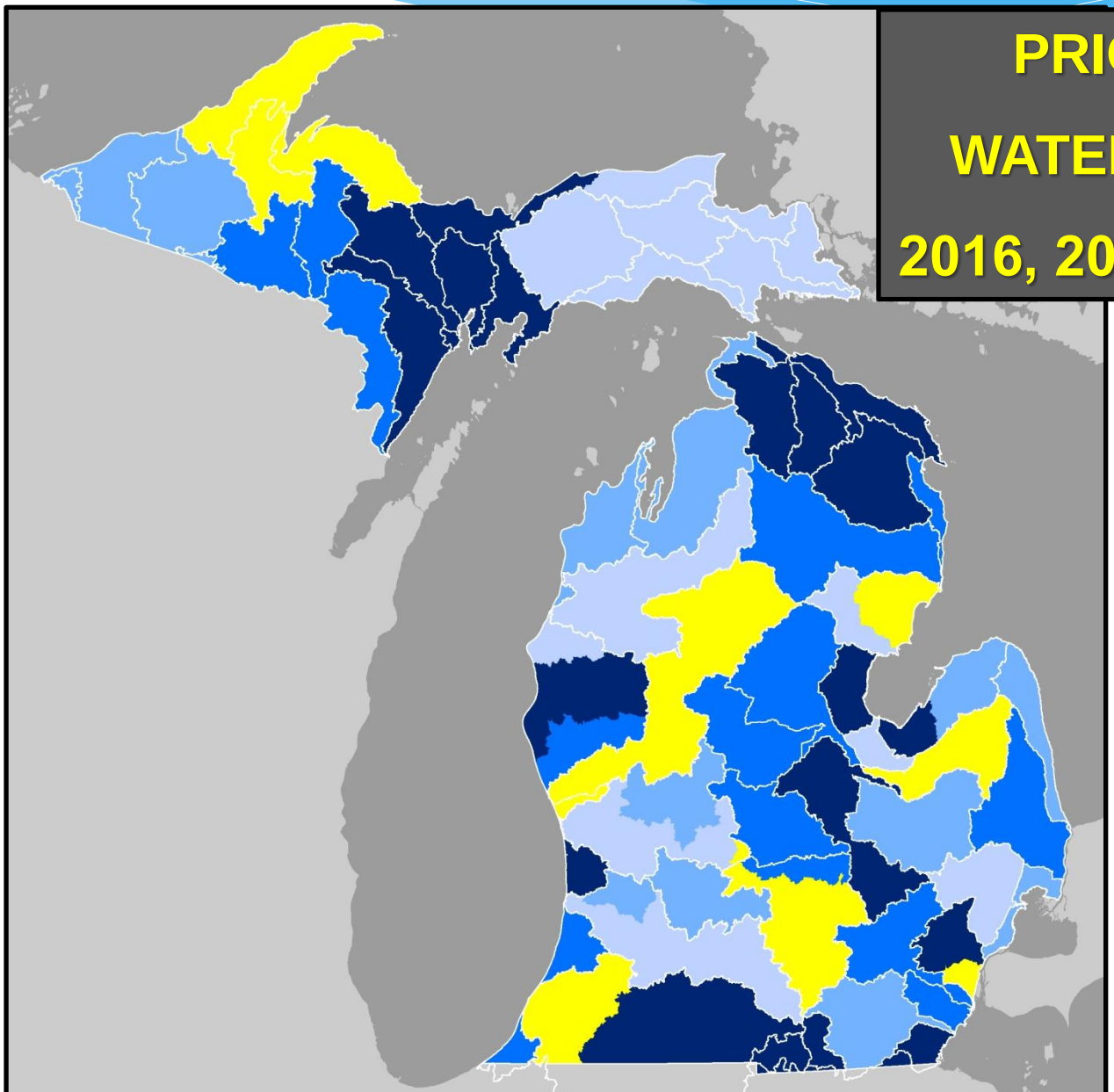
- **Assess current status and condition**
- **Measure spatial and temporal trends**
- **Evaluate effectiveness of protection & restoration programs**
- **Detect new and emerging problems**

Efforts have been supported by the Clean Michigan Initiative - Clean Water Fund

Five-Year Rotating Watershed System



Five-Year Rotating Watershed System



PRIORITY WATERSHEDS

2016, 2021, 2026…

Lee Schoen

- **Examples of MDEQ WRD monitoring**

Examples of MDEQ WRD Monitoring

- **Macroinvertebrate and fish community surveys**

Credit – MDEQ WRD SWAS

Credit – MDEQ WRD SWAS

http://www.michigan.gov/deq/0,4561,7-135-3313_3681_3686_3728-32369--,00.html

Examples of MDEQ WRD Monitoring

- **<u>Macroinvertebrate</u> and fish community surveys**

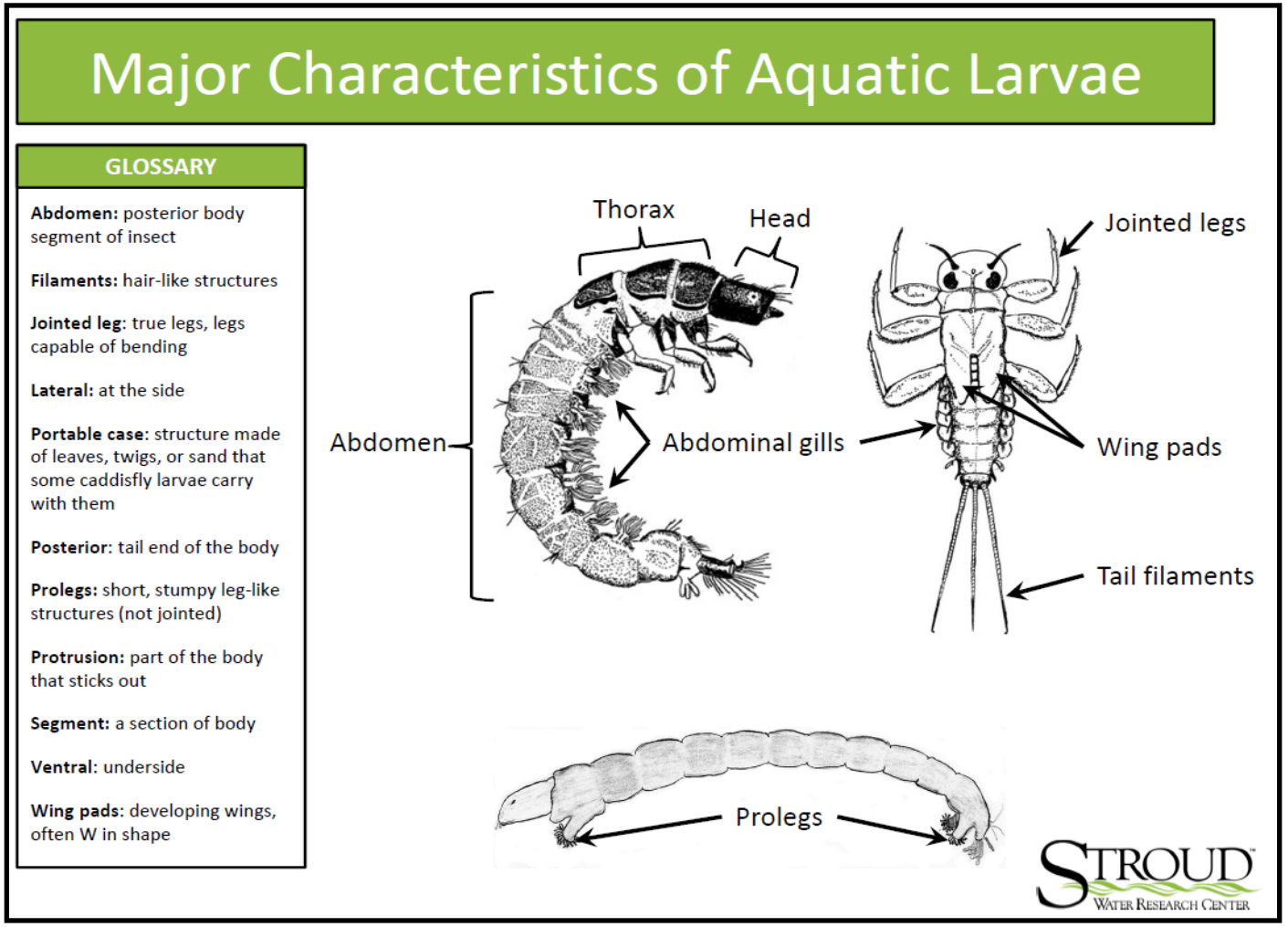


Image Source: http://www.stroudcenter.org/education/MacroKey_Complete.pdf

Examples of MDEQ WRD Monitoring

- **Water chemistry**

Credit – MDEQ WRD SWAS

Credit – MDEQ WRD SWAS

http://www.michigan.gov/deq/0,4561,7-135-3313_3681_3686_3728-32361--,00.html

Examples of MDEQ WRD Monitoring

- ***E. coli*** **bacteria monitoring**

Credit – MDEQ WRD SWAS

Credit – MDEQ WRD SWAS

http://www.michigan.gov/deq/0,4561,7-135-3313_3681_3686_3730-11005--,00.html

http://www.deq.state.mi.us/beach/

Examples of MDEQ WRD Monitoring

- **Sediment chemistry**

Credit – MDEQ WRD SWAS

Credit – MDEQ WRD SWAS

http://www.michigan.gov/deq/0,4561,7-135-3313_3681_3686_3728-32365--,00.html

Examples of MDEQ WRD Monitoring

- **Fish contaminants**

Credit – MDEQ WRD SWAS

http://www.michigan.gov/deq/0,4561,7-135-3313_3681_3686_3728-32393--,00.html

http://www.michigan.gov/eatsafefish

Examples of MDEQ WRD Monitoring

- **Nuisance aquatic plant or algae growth studies**

Credit – MDEQ WRD SWAS

Credit – MDEQ WRD AIS

http://www.michigan.gov/deq/0,4561,7-135-3313_3681_3710---,00.html

Examples of MDEQ WRD Monitoring

- **Aquatic invasive species**

Credit – MDEQ WRD AIS

Credit – MDEQ WRD AIS

http://www.michigan.gov/invasives/

Examples of MDEQ WRD Monitoring

- **Inland lake trophic status investigations.**

Credit – MDEQ WRD SWAS

Credit – MDEQ WRD SWAS

http://www.michigan.gov/deq/0,4561,7-135-3313_3681_3686_3731-195534--,00.html

Examples of MDEQ WRD Monitoring

- **Channel morphology**

Credit – MDEQ WRD NPS

Credit – MDEQ WRD NPS

http://www.michigan.gov/deq/0,4561,7-135-3313_3684_3724-57034--,00.html

Jeff Varricchione

- **Some Success Story Examples**

Credit: Nonpoint Source Program Success Stories
http://www.michigan.gov/deq/0,1607,7-135-3304-165122--,00.html

Some Success Story Examples

Tributary of the Pilgrim River (Houghton County)

- **A tributary to Pilgrim River: contaminated with *E. coli* bacteria**
- **Sewer systems were constructed**
- **Monitoring before and after construction showed large decrease in bacteria counts**

Some Success Story Examples

Osborn Creek (Oceana County)

- 9 culverts on Osborn Creek replaced
- Monitoring: channel morphology & visual observations
- Improved channel stability and fish passage

Some Success Story Examples

Fitzgerald Creek (Dickinson County)

- **Unlimited cattle access damaging the stream**
- **Best management practices installed**
- **Monitoring between 2002 and 2012 indicated many improvements**

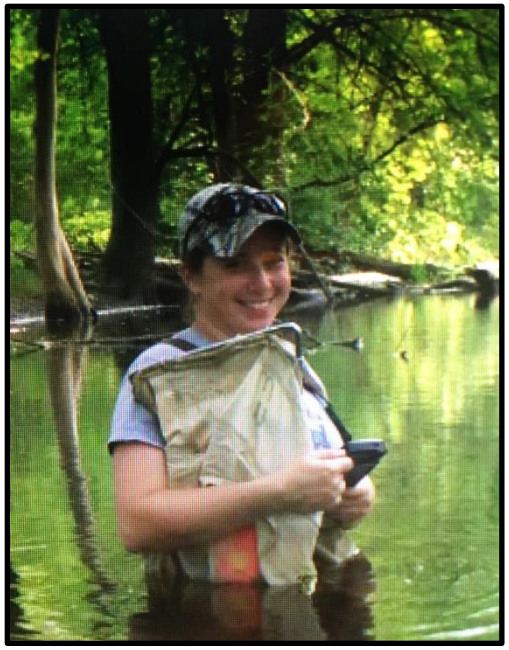
Some Success Story Examples

Thornapple River (Barry County)

- **Prior to dam removal, the river had low dissolved oxygen concentrations**

- **After removing dam, monitoring revealed dissolved oxygen concentrations had improved**

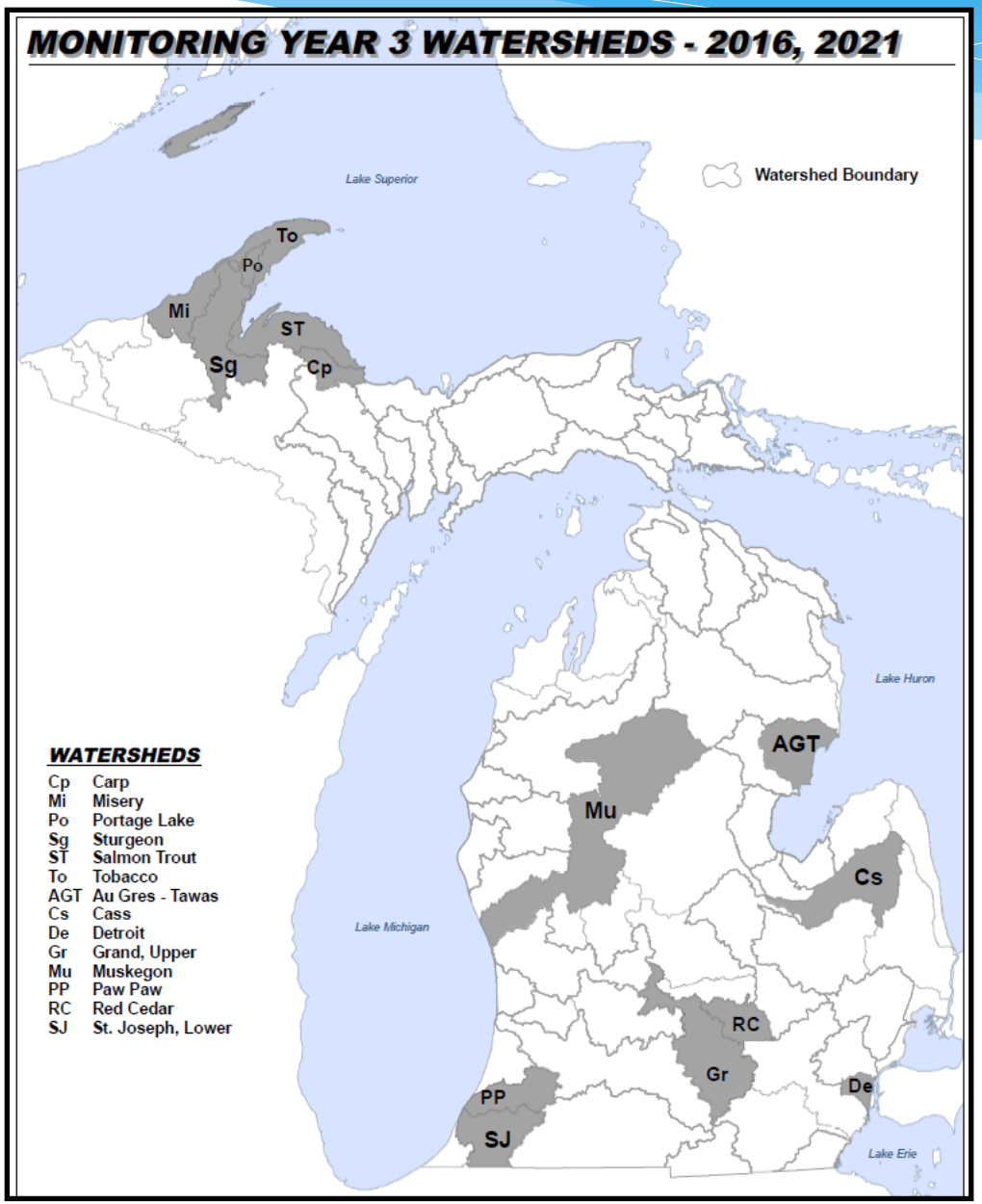
Audience Survey



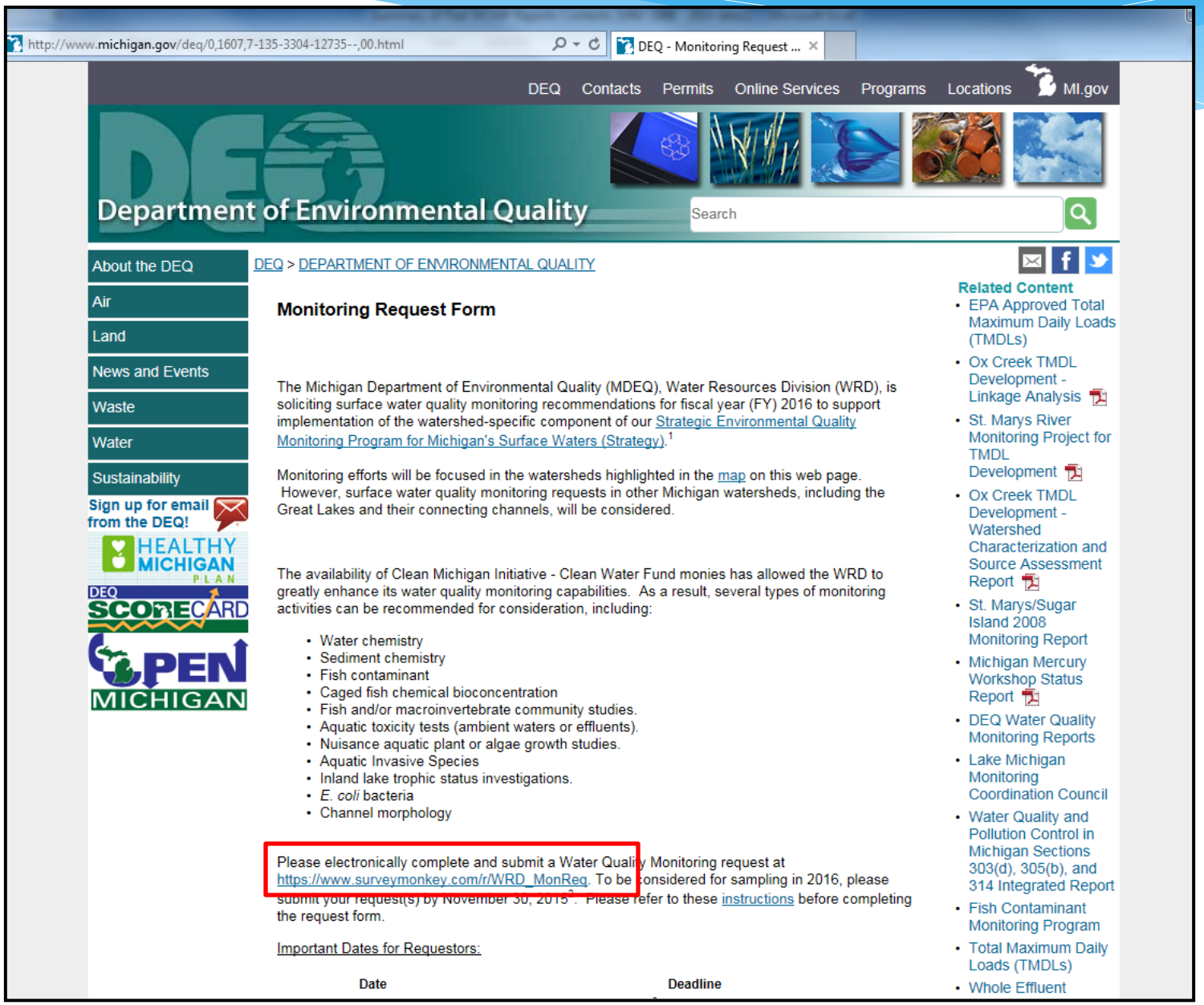
Kelly Turek

- The monitoring request review process
- Completing a monitoring request

Completing a Monitoring Request Form



Completing a Monitoring Request Form



http://www.michigan.gov/deq/0,1607,7-135-3304-12735--,00.html

DEQ - Monitoring Request ...

DEQ Contacts Permits Online Services Programs Locations MI.gov

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Monitoring Request Form

The Michigan Department of Environmental Quality (MDEQ), Water Resources Division (WRD), is soliciting surface water quality monitoring recommendations for fiscal year (FY) 2016 to support implementation of the watershed-specific component of our Strategic Environmental Quality Monitoring Program for Michigan's Surface Waters (Strategy).[1]

Monitoring efforts will be focused in the watersheds highlighted in the map on this web page. However, surface water quality monitoring requests in other Michigan watersheds, including the Great Lakes and their connecting channels, will be considered.

The availability of Clean Michigan Initiative - Clean Water Fund monies has allowed the WRD to greatly enhance its water quality monitoring capabilities. As a result, several types of monitoring activities can be recommended for consideration, including:

- Water chemistry
- Sediment chemistry
- Fish contaminant
- Caged fish chemical bioconcentration
- Fish and/or macroinvertebrate community studies.
- Aquatic toxicity tests (ambient waters or effluents).
- Nuisance aquatic plant or algae growth studies.
- Aquatic Invasive Species
- Inland lake trophic status investigations.
- *E. coli* bacteria
- Channel morphology

Please electronically complete and submit a Water Quality Monitoring request at https://www.surveymonkey.com/r/WRD_MonReq. To be considered for sampling in 2016, please submit your request(s) by November 30, 2015[2]. Please refer to these instructions before completing the request form.

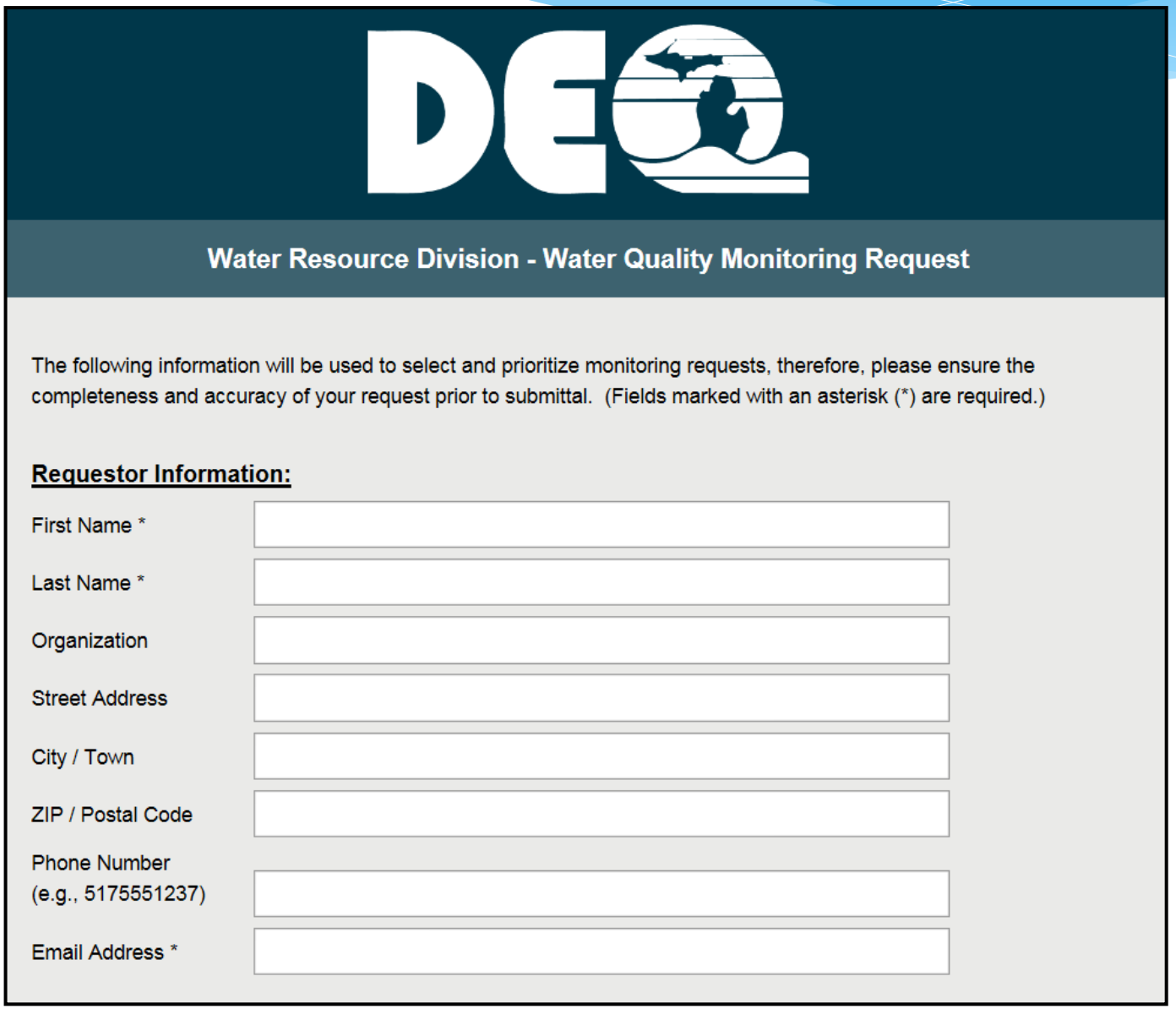
Important Dates for Requestors:

Date	Deadline

Related Content

- EPA Approved Total Maximum Daily Loads (TMDLs)
- Ox Creek TMDL Development - Linkage Analysis
- St. Marys River Monitoring Project for TMDL Development
- Ox Creek TMDL Development - Watershed Characterization and Source Assessment Report
- St. Marys/Sugar Island 2008 Monitoring Report
- Michigan Mercury Workshop Status Report
- DEQ Water Quality Monitoring Reports
- Lake Michigan Monitoring Coordination Council
- Water Quality and Pollution Control in Michigan Sections 303(d), 305(b), and 314 Integrated Report
- Fish Contaminant Monitoring Program
- Total Maximum Daily Loads (TMDLs)
- Whole Effluent

Completing a Monitoring Request Form



Water Resource Division - Water Quality Monitoring Request

The following information will be used to select and prioritize monitoring requests, therefore, please ensure the completeness and accuracy of your request prior to submittal. (Fields marked with an asterisk (*) are required.)

Requestor Information:

First Name *	
Last Name *	
Organization	
Street Address	
City / Town	
ZIP / Postal Code	
Phone Number (e.g., 5175551237)	
Email Address *	

Completing a Monitoring Request Form

Monitoring Information:

In order to prioritize monitoring requests received, it is important to provide accurate information on the desired sampling location. This online form will allow you to request up to 3 different sites; if your request includes more than 3 sites, please fill out an additional Water Quality Monitoring Request for those sites.

Waterbody Name*	
County	
Location (e.g., road crossing or other description)*	
Latitude * (e.g., 42.73194)	
Longitude * (e.g., -84.55923)	

Completing a Monitoring Request Form

How to Find Latitude and Longitude

The following steps can be used to determine latitude and longitude using common mapping websites. Click on either link and follow the corresponding directions below:

Google Maps

1. *Go to www.google.com/maps*
2. *Locate your desired sampling location (you may view aerial imagery by clicking on the "Satellite" box in the lower left hand corner)*
3. *Click with the cursor on the desired sampling location*
4. *The Latitude and Longitude will appear in a box at the bottom of your screen*

Bing Maps

1. *Go to www.bing.com/mapspreview*
2. *Locate your desired sampling location (you may view aerial imagery by holding your cursor over the small box in the upper right hand corner and selecting "Aerial")*
3. *Right click on the desired sampling location and select "Add a pushpin"*
4. *An information box will appear in the upper left hand corner with the latitude and longitude*

How to Convert Latitude and Longitude

The latitude and longitude format required for this form is decimal degrees (e.g., 46.545841, -87.413681). If your information is in degrees-minutes-seconds, please use the following website to convert to decimal degrees (http://transition.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html).

Completing a Monitoring Request Form

Requested Monitoring:

Please select the type of monitoring activities that will be necessary to complete your monitoring objectives. You may select more than one choice if multiple monitoring activities are appropriate to achieving your objectives, however, please limit monitoring objectives to those that are essential.

	Yes
Channel Morphology	○
Fish Contaminant	○
Sediment Chemistry (specify parameters below)	○
Caged Fish Study	○
Nuisance Aquatic Plant/Algae	○
Aquatic Invasive Species	○
Inland Lake Trophic Status	○
Bacteria Monitoring (e.g., *E.coli*)	○
Water Chemistry (specify **parameters** below)	○

Completing a Monitoring Request Form

Fish Community	○
Macroinvertebrate Community	○
Other (specify **other kinds of monitoring** below)	○

Water Chemistry and/or Sediment Chemistry Parameters (if applicable)

Other Kinds of Monitoring (if applicable)

Completing a Monitoring Request Form

Requested Monitoring Justification:

Provide a short summary of why monitoring should be performed at the requested site(s). Please include the objective(s) of the monitoring as they relate to the activities requested. If necessary, additional justification can be provided in the "Additional Comments" section below. If applicable, please point out whether the requested monitoring is related to Total Maximum Daily Loads (TMDLs), National Pollutant Discharge Elimination System (NPDES), Areas of Concern (AOC), potential restoration or best management practice success stories, long term trend monitoring, etc.

Completing a Monitoring Request Form

Additional Comments:

(This area is for providing information beyond what you provided in the "Justification" section to further demonstrate the need to perform the requested monitoring at the site(s) or for providing additional details about your monitoring request and/or site(s).)

Completing a Monitoring Request Form

Do you have another site you would like to add?

- ○ Yes
- ○ No

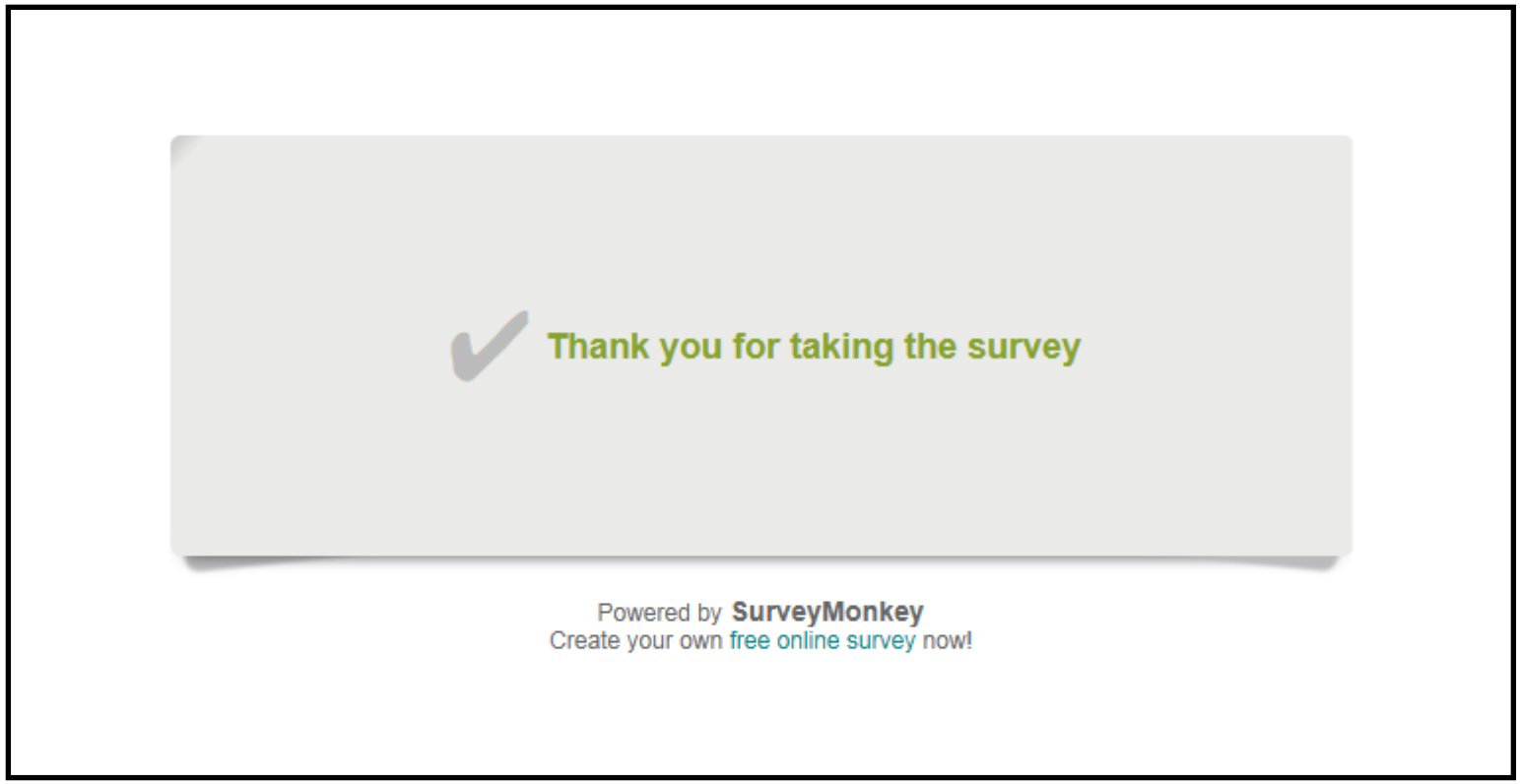
For assistance with this request please contact:

Michigan Department of Environmental Quality
Water Resources Division
Kelly Turek (517) 284-5485 or Lee Schoen (517) 284-6662
DEQ-WRD-TMR@michigan.gov

Next

Completing a Monitoring Request Form

Completing a Monitoring Request Form



Completing a Monitoring Request Form

More Detailed Instructions:

http://www.michigan.gov/deq/0,1607,7-135-3304-12735--,00.html

Monitoring Request Form:

http://www.michigan.gov/deq/0,1607,7-135-3304-12735--,00.html

Lee Schoen

- **Important dates**
- **Correspondence**

Completing a Monitoring Request Form

Important Dates for Requestors:

Date		**Deadline**
October 14, 2015	-	Official application period opens
November 5, 2015	-	Webinar
November 30, 2015	-	Deadline for submitting requests
December 18, 2015	-	Confirmation emails sent out
June 1, 2016	-	Notification of final decisions

Audience Survey

Questions?

Contact Information:

- DEQ-WRD-TMR@michigan.gov
- Kelly Turek, turekk@michigan.gov, (517) 284-5485
- Lee Schoen, schoenl1@michigan.gov, (517) 284-6662
- Jeff Varricchione, varricchionej@michigan.gov, (517) 284-5557

Monitoring Request Form:
http://www.michigan.gov/deq/0,1607,7-135-3304-12735--,00.html

DEQ's Surface Water Assessment Section Homepage:
http://michigan.gov/waterquality