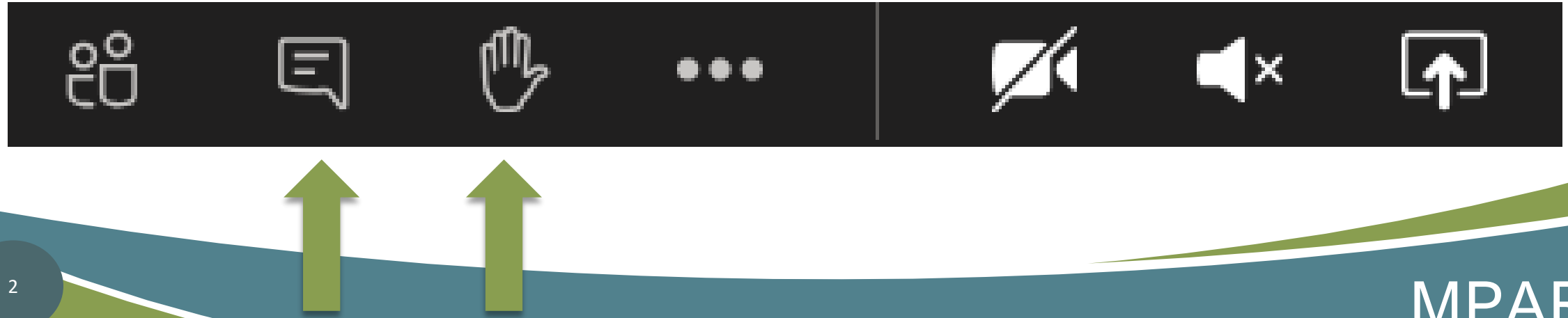
MPART Citizens Advisory Workgroup

June 8, 2021

MPART

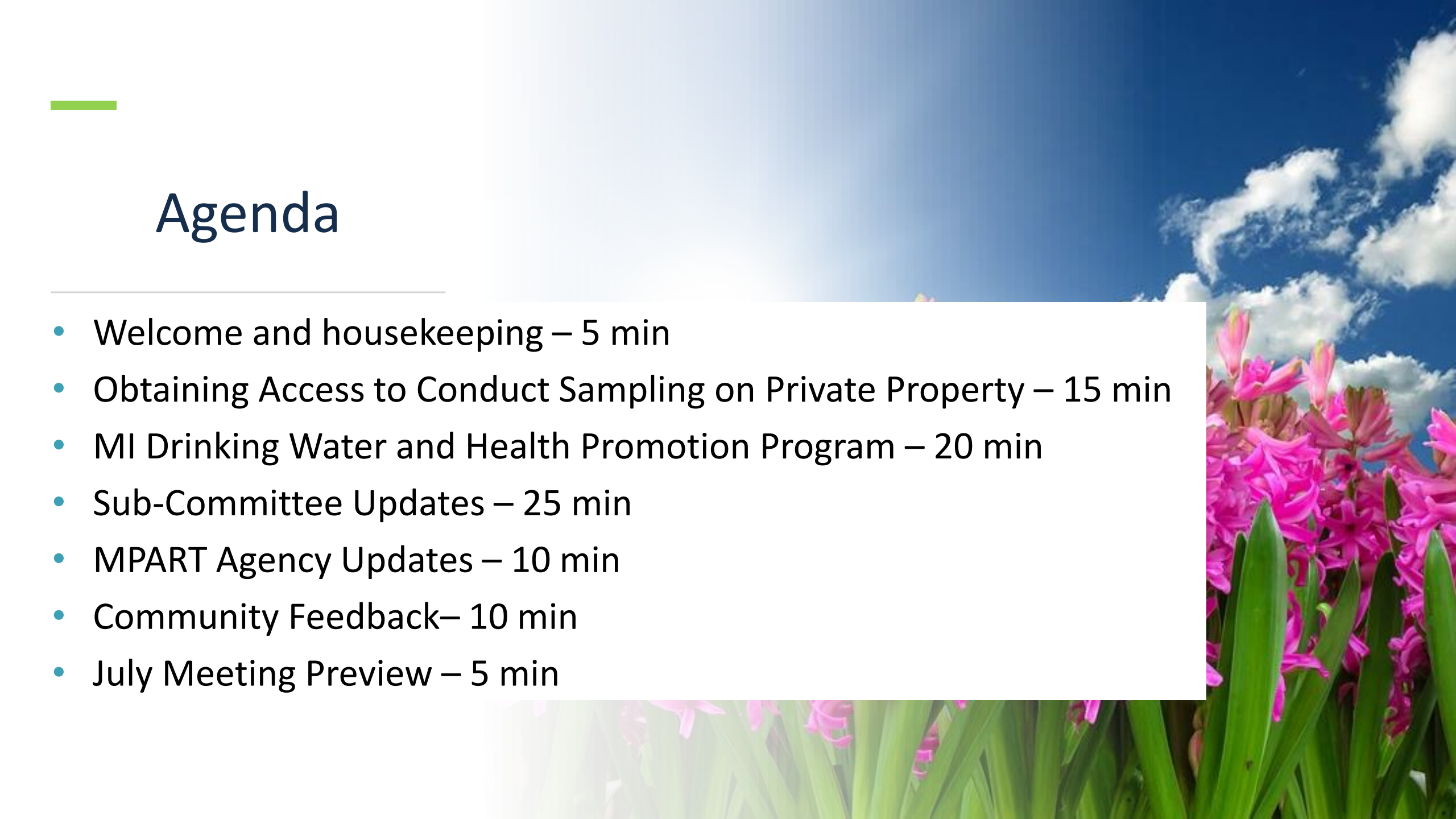
Housekeeping

- Please keep your mic/phone muted unless speaking
- Only use the “raise hand” and/or “chat” function for questions or to request to speak
- Cameras are optional
- This meeting is being recorded



Agenda

- Welcome and housekeeping – 5 min
- Obtaining Access to Conduct Sampling on Private Property – 15 min
- MI Drinking Water and Health Promotion Program – 20 min
- Sub-Committee Updates – 25 min
- MPART Agency Updates – 10 min
- Community Feedback– 10 min
- July Meeting Preview – 5 min



- Sounding board for process improvements
- Provide solutions to identified concerns
- Statewide focus for PFAS issues not site specific
- Open communication that seeks to understand a variety of perspectives

EGLE's Challenges for Obtaining Access to Conduct Residential Well Sampling

Kim Sakowski, Site Lead
Michigan Department of Environment, Great Lakes, and Energy
SakowskiK@Michigan.gov
517-582-2219

Property Access

Homeowner

Lansing Capital Re

- Ms. Liz Bra
  Department
- Ms. Sue Le
- Ms. Rosa J
  jaimant@m
- Ms. Kim Sa
  517-582-22

More information

Thank you for yo

Enclosure

2

April 15, 2021

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING DISTRICT OFFICE

EGLE

GRETCHEN WHITMER
GOVERNOR

LIESL EICHLER CLARK
DIRECTOR

April 15, 2021

Address

Dear Homeowner:

I'm with the Michigan Department of Environment, Great Lakes, and Energy (EGLE). PFAS are a group of chemicals that don't break down easily, remain in the environment for decades, and may be harmful to your health.

Free water test
Your home is near a suspected source of PFAS. To make sure you and your family are protected, we would like to test your drinking water well at no cost to you.

How to have your water tested
If you are interested in having your well tested, please fill out the enclosed Access Agreement form and use one of the following options to submit the form back to me:

- Take a picture of the signed Access Agreement Form and text the image to 517-582-2219, or email the image to sakowskik@michigan.gov.
- Sign the Access Agreement Form and hang it on the front doorknob of your home in a plastic bag or Ziploc bag to protect it from the weather on the morning of April 26, 2021.
- Mail the signed Access Agreement Form to the address at the bottom of this letter.

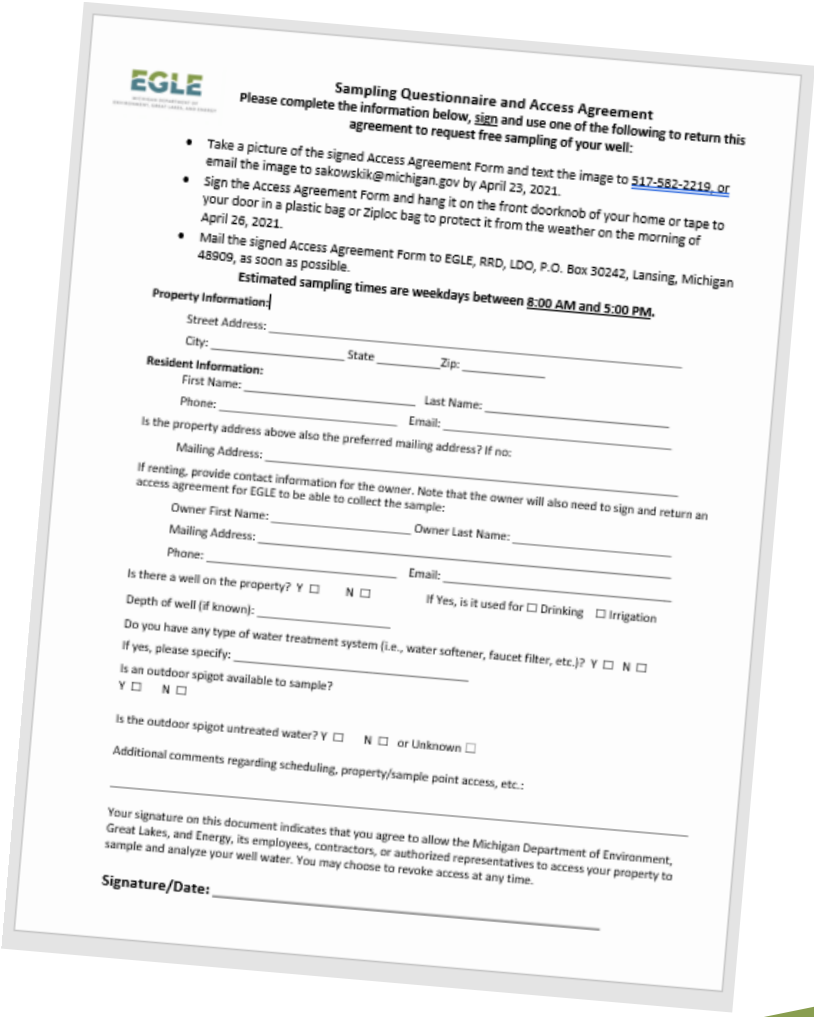
Call me at 517-582-2219 if you have questions or need help filling out the form.

After we receive your form, we will schedule a contractor to come to your house as soon as April 26, 2021, to collect a water sample from your well, along with other homes we have reason to believe might be at risk from PFAS. The contractor will follow COVID procedures, meaning the sample will be collected from an outside spigot.

Your test results
After your test results come back and have been reviewed by scientists, your local health department or Michigan Department of Health and Human Services will send your results to you with an explanation of what they mean. If we find results that are a potential concern for your health, we will call you right away. If needed, we will discuss alternative water options that would be provided at no cost to you until a longer-term solution is available.

If you have questions, please feel free to reach out to me, or any of the other team members listed below.

CONSTITUTION HALL - 525 WEST ALLEGAN STREET - P.O. BOX 30242 - LANSING, MICHIGAN 48909-7742
Michigan.gov/EGLE - 517-284-6951



EGLE

Sampling Questionnaire and Access Agreement
Please complete the information below, sign and use one of the following to return this agreement to request free sampling of your well:

- Take a picture of the signed Access Agreement Form and text the image to 517-582-2219, or email the image to sakowskik@michigan.gov by April 23, 2021.
- Sign the Access Agreement Form and hang it on the front doorknob of your home or tape to your door in a plastic bag or Ziploc bag to protect it from the weather on the morning of April 26, 2021.
- Mail the signed Access Agreement Form to EGLE, RRD, LDO, P.O. Box 30242, Lansing, Michigan 48909, as soon as possible.

Estimated sampling times are weekdays between 8:00 AM and 5:00 PM.

Property Information:
Street Address: _____
City: _____ State _____ Zip: _____

Resident Information:
First Name: _____ Last Name: _____
Phone: _____ Email: _____

Is the property address above also the preferred mailing address? If no:
Mailing Address: _____

If renting, provide contact information for the owner. Note that the owner will also need to sign and return an access agreement for EGLE to be able to collect the sample:
Owner First Name: _____ Owner Last Name: _____
Mailing Address: _____
Phone: _____ Email: _____

Is there a well on the property? Y ☐ N ☐ If Yes, is it used for ☐ Drinking ☐ Irrigation
Depth of well (if known): _____

Do you have any type of water treatment system (i.e., water softener, faucet filter, etc.)? Y ☐ N ☐
If yes, please specify: _____

Is an outdoor spigot available to sample?
Y ☐ N ☐

Is the outdoor spigot untreated water? Y ☐ N ☐ or Unknown ☐

Additional comments regarding scheduling, property/sample point access, etc.:

_____

Your signature on this document indicates that you agree to allow the Michigan Department of Environment, Great Lakes, and Energy, its employees, contractors, or authorized representatives to access your property to sample and analyze your well water. You may choose to revoke access at any time.

Signature/Date: _____

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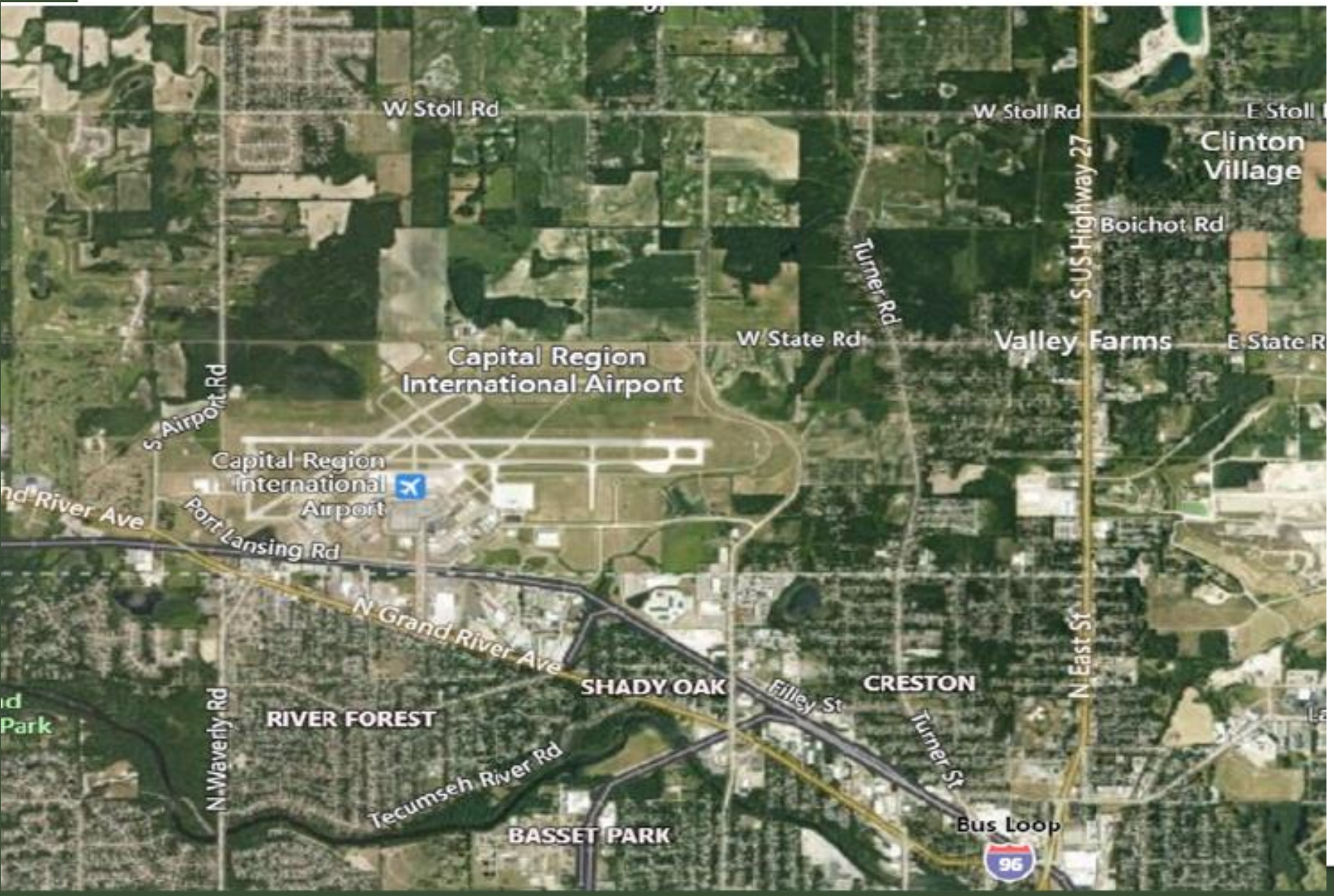
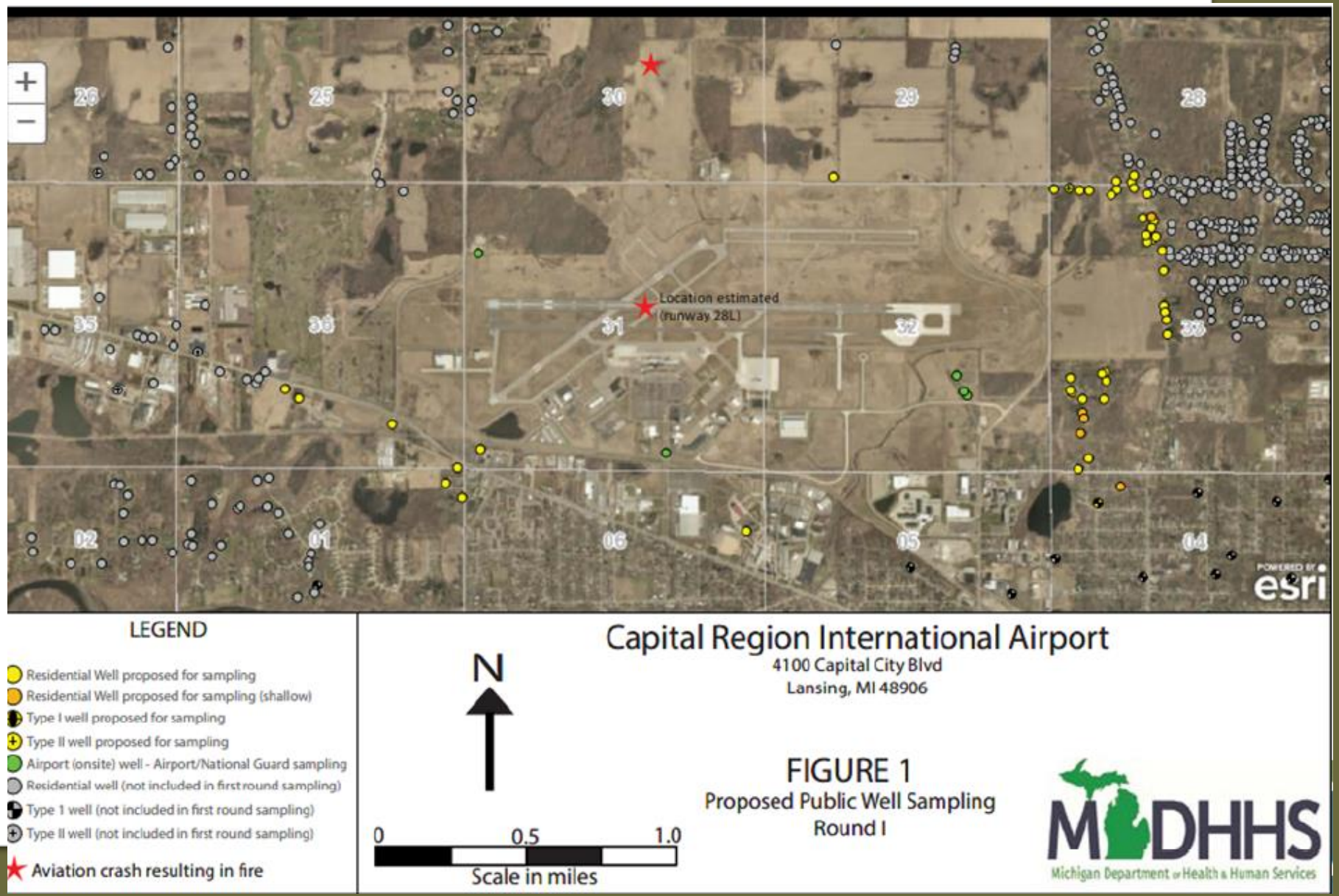
Capital Area Regional Airport Case Study



Airport Location



Residential Wells Selected

Timeline

April 7, 2021

Using Wellogic, EGLE identified residential wells located near the airport that could become impacted by PFAS contamination and sent list to DHHS for review and concurrence.

April 12, 2021

DHHS completed review, added a few additional wells. List was shared with local health departments.

April 15, 2021

47 letters with access agreements were mailed out.

Timeline

April 22-29, 2021

EGLE received five signed access agreements via text.

May 3, 2021

DHHS request Local Health Departments try contacting residents for access.

May 6, 2021

EGLE received sixth signed access via text.

May 11, 2021

EGLE used additional information to determine alternative contact phone numbers and shared with DHHS and Local Health Departments.

May 12-13, 2021

Local Health Department tried to contact homes via telephone.

Timeline

May 13, 2021

EGLE staff went to all “shallow well” homes. EGLE was able to get two signed access agreements and left door hangers and unsigned access agreements at other homes. No additional responses were received from these homes.

May 14, 2021

DHHS staff went to other “priority” homes. DHHS was able to get three signed access agreements and left door hangers and unsigned access agreements at other homes. No additional responses were received from this effort.

May 20, 2021

One signed access agreement was received via USPS (duplicate).

May 27, 2021

Residential Well Sampling was conducted by EGLE contractor AECOM. Only 10 homes were sampled. AECOM was denied access to one home when they went.

Timeline Summary

Process began April 7, 2021

Access targeted 47 homes between April 15 – May 20, 2021. Only 11 access agreements secured.

Sampling occurred May 27, 2021, at only 10 homes.

MPART

Questions?

MI Drinking Water and Health Promotion Program

A Social Marketing Campaign

Kristin Ward, MDHHS
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517-331-0592

Ashley Mark, MDHHS
MarkA@Michigan.gov
517-582-2877

Division of Environment Health

Mission

We serve to promote and protect the health of the people of Michigan by using the best available methods for epidemiology, toxicology, and health education to **identify** exposures, **investigate** related health effects, and **intervene** with public health actions. We aim to make sure state residents, especially those who are most at risk, are aware of and can take action to avoid environmental, chemical, and physical hazards.

Vision

Apply the best available science to end or prevent injury from environmental, chemical, and physical hazards, and promote equity for the people of Michigan.

Program Need

Program Purpose

To empower Michiganders to make informed decisions and take action to protect their health from drinking water contamination through equitable promotion, education, and engagement.

Needs Assessment

- Literature Review
- Collaboration Analysis
- Key Informant Interviews
- Exploratory Survey
- Focus Groups

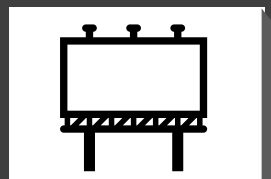
MPART

Program Goals

Goal 1. To inform and educate Michigan residents on their drinking water supply type and encourage them to adopt best drinking water practices.

Goal 2. To educate private residential well owners about the importance of well maintenance and encourage actions to reduce drinking water contamination and potential health risks.

Goal 3. To promote and offer equitable educational opportunities on ways public water supply residents can learn about their drinking water quality to make informed decisions about their health.



facebook

Instagram

Google

YouTube

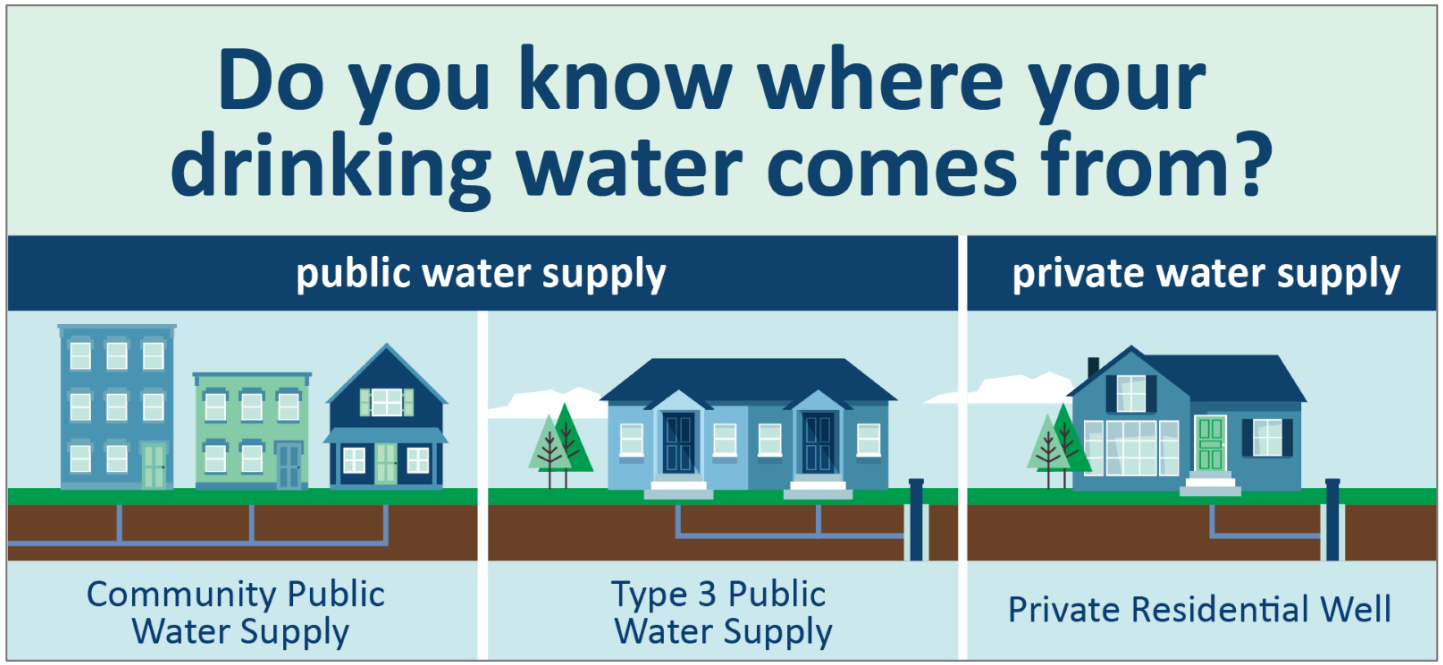
Mass Media Campaign

Planned 2022-2023

MPART

Goal 1

To inform and educate Michigan residents on their drinking water supply type and encourage them to adopt best drinking water practices.



Mi FiveACTS for Drinking Water

Five ACTS all Michiganders can do to protect their drinking water and health!
Select each act to learn more!

Flush
water pipes

Aera[illegible]
[illegible]leani[illegible]g

Check
home plumbing

Test
home drinking water to learn if you may need a water filter or treatment system

Step-up
for the environment

MPART

Drinking Water Awareness Week

Initiative

Michigan.gov/DrinkingWaterWeek

Drinking Water and Health

Initiatives

Website

- Michigan.gov/envirohealth

GovDelivery Newsletter

- To subscribe follow this link
- Go to the header “Population and Public Health”
- Check “Drinking Water and Health”

MI Drinking Water and Health Promotion Toolkit

MPART

Youth Drinking Water Ambassador

Project

MPART

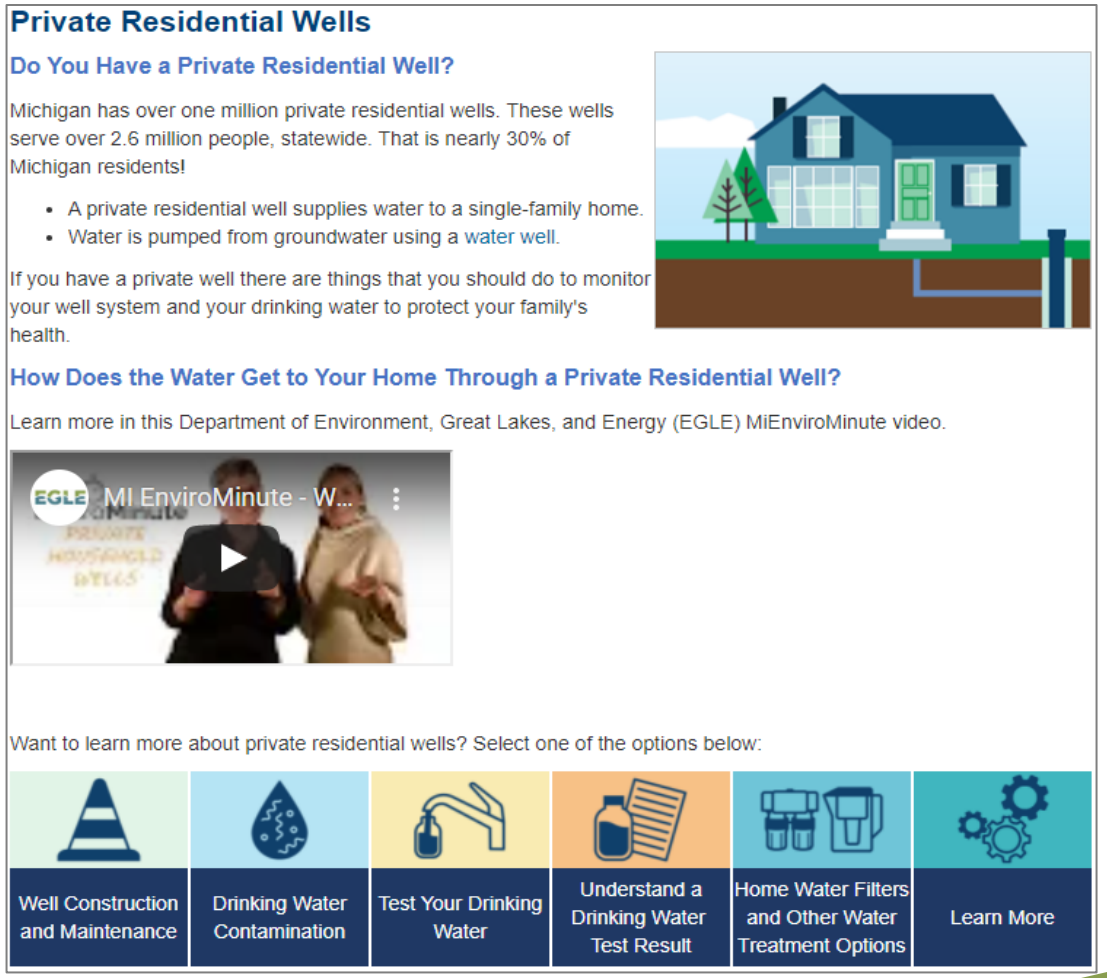
Goal 2

To educate private residential well owners about the importance of well maintenance and encourage actions to reduce drinking water contamination and potential health risks.

Care for MiWell

Michigan.gov/envirohealth

- Under “Our Programs”
- Select “Care for MiWell”



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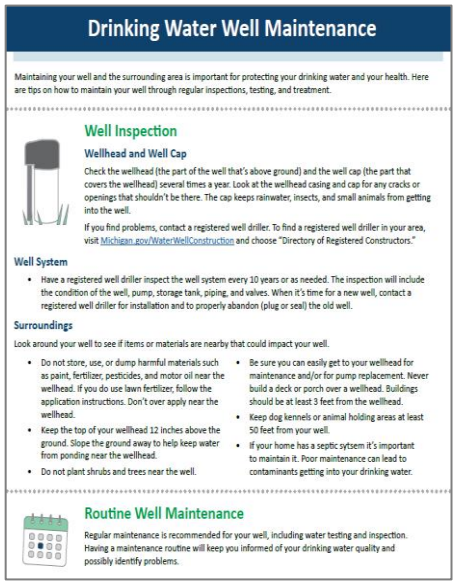
MiWell Resources



Drinking Water Well Maintenance

Maintaining your well and the surrounding area is important for protecting your drinking water and your health. Here are tips on how to maintain your well through regular inspections, testing, and treatment.

Well Inspection

Wellhead and Well Cap

Check the wellhead (the part of the well that's above ground) and the well cap (the part that covers the wellhead) several times a year. Look at the wellhead casing and cap for any cracks or openings that shouldn't be there. The cap keeps rainwater, insects, and small animals from getting into the well.

If you find problems, contact a registered well driller. To find a registered well driller in your area, visit Michigan.gov/WaterWellConstruction and choose "Directory of Registered Constructors."

Well System

- Have a registered well driller inspect the well system every 10 years or as needed. The inspection will include the condition of the well, pump, storage tank, piping, and valves. When it's time for a new well, contact a registered well driller for installation and to properly abandon (plug or seal) the old well.

Surroundings

Look around your well to see if items or materials are nearby that could impact your well.

- Do not store, use, or dump harmful materials such as paint, fertilizer, pesticides, and motor oil near the wellhead. If you do use lawn fertilizer, follow the application instructions. Don't over apply near the wellhead.
- Keep the top of your wellhead 12 inches above the ground. Slope the ground away to help keep water from ponding near the wellhead.
- Do not plant shrubs and trees near the well.
- Be sure you can easily get to your wellhead for maintenance and/or for pump replacement. Never build a deck or porch over a wellhead. Buildings should be at least 3 feet from the wellhead.
- Keep dog kennels or animal holding areas at least 50 feet from your well.
- If your home has a septic sytsem it's important to maintain it. Poor maintenance can lead to contaminants getting into your drinking water.

Routine Well Maintenance

Regular maintenance is recommended for your well, including water testing and inspection. Having a maintenance routine will keep you informed of your drinking water quality and possibly identify problems.

Protect Against the Unknown:
Test Your Drinking Water from Your Well

Contaminants in drinking water can harm everyone's health. Some can cause short-term health problems while others can cause long-term health problems.

As a well owner, you can protect your family's health by testing your water regularly.

Why is it important to test your drinking water?

Testing will keep you informed about your water quality and help identify problems. Testing the water used for drinking, cooking food, or mixing powdered infant formula is especially important.

Pregnant women, infants, and young children's health can be more at risk. It's important to talk with your doctor if you have health concerns.

- Some contaminants can pass from the mother to the fetus. This puts the fetus at risk of harm to their health and development.
- Babies drink more for their size than children and adults. This can result in higher exposure to babies than adults, which could increase risk of harm to their health.

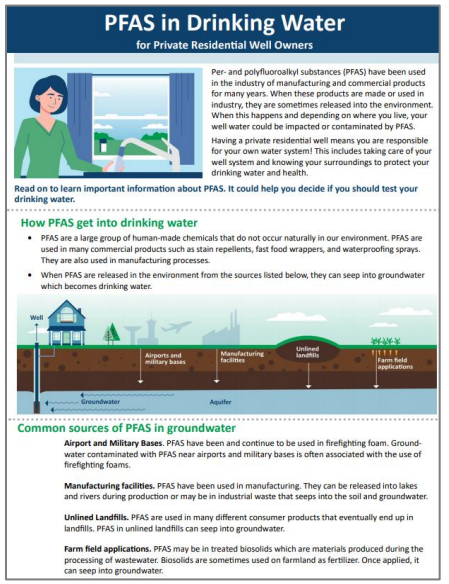
When should you test your drinking water, and for what?

Wells are required to be tested for coliform bacteria when installed or repaired in Michigan. Based on where you live, you may be required to test your water at other times, such as during real estate transactions.

Call your local health department to learn more about when you need to test your water. They may also recommend additional testing based on water conditions in your area.

The Michigan Department of Health and Human Services (MDHHS) recommends the following routine well testing schedule.

Every Year	Every 3 to 5 Years
Coliform Bacteria and *E. coli*	Arsenic
Nitrate	Copper
Nitrite	Lead



PFAS in Drinking Water
for Private Residential Well Owners

Per- and polyfluoroalkyl substances (PFAS) have been used in the industry of manufacturing and commercial products for many years. When these products are made or used in industry, they are sometimes released into the environment. When this happens and depending on where you live, your well water could be impacted or contaminated by PFAS.

Having a private residential well means you are responsible for your own water system! This includes taking care of your well system and knowing your surroundings to protect your drinking water and health.

Read on to learn important information about PFAS. It could help you decide if you should test your drinking water.

How PFAS get into drinking water

- PFAS are a large group of human-made chemicals that do not occur naturally in our environment. PFAS are used in many commercial products such as stain repellents, fast food wrappers, and waterproofing sprays. They are also used in manufacturing processes.
- When PFAS are released in the environment from the sources listed below, they can seep into groundwater which becomes drinking water.

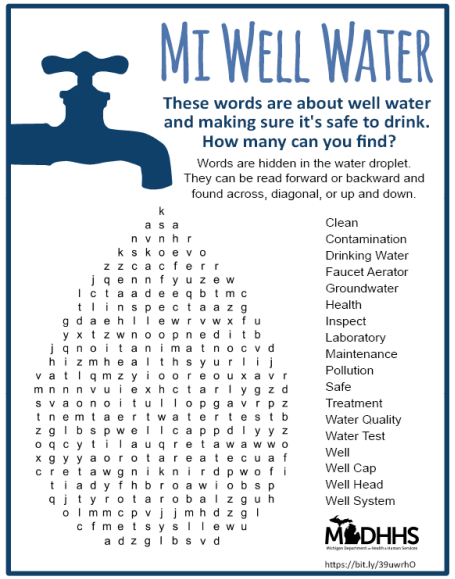
Common sources of PFAS in groundwater

Airport and Military Bases. PFAS have been and continue to be used in firefighting foam. Ground-water contaminated with PFAS near airports and military bases is often associated with the use of firefighting foams.

Manufacturing facilities. PFAS have been used in manufacturing. They can be released into lakes and rivers during production or may be in industrial waste that seeps into the soil and groundwater.

Unlined Landfills. PFAS are used in many different consumer products that eventually end up in landfills. PFAS in unlined landfills can seep into groundwater.

Farm field applications. PFAS may be in treated biosolids which are materials produced during the processing of wastewater. Biosolids are sometimes used on farmland as fertilizer. Once applied, it can seep into groundwater.



MI WELL WATER

These words are about well water and making sure it's safe to drink. How many can you find?

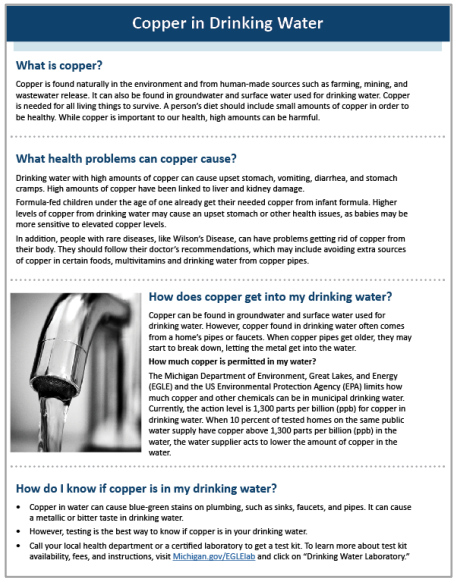
Words are hidden in the water droplet. They can be read forward or backward and found across, diagonal, or up and down.

k
a s a
n v n h r
k s k o e v o
z z c a c f e r r
j q e n n f y u z e w
l c t a a d e e q b t m c
t l i n s p e c t a a z g
g d a e h l l e w r v w x f u
y x t z w n o o p n e d i t b
j q n o i t a n i m a t n o c v d
h i z m h e a l t h s y u r l i j
v a t l q m z y i o o r e o u x a v r
m n n n v u i e x h c t a r l y g z d
s v a o n o i t u l l o p g a v r p z
t n e m t a e r t w a t e r t e s t b
z g l b s p w e l l c a p p d l y y z
o q c y t i l a u q r e t a w a w w o
x g y y a o r o t a r e a t e c u a f
c r e t a w g n i k n i r d p w o f i
t i a d y f h b r o a w i o b s p
q j t y r o t a r o b a l z g u h
o l m m c p v j j m h d z g l
c f m e t s y s l l e w u
a d z g l b s v d

Clean
Contamination
Drinking Water
Faucet Aerator
Groundwater
Health
Inspect
Laboratory
Maintenance
Pollution
Safe
Treatment
Water Quality
Water Test
Well
Well Cap
Well Head
Well System

MDHHS

https://bit.ly/39uwrhO



Copper in Drinking Water

What is copper?

Copper is found naturally in the environment and from human-made sources such as farming, mining, and wastewater release. It can also be found in groundwater and surface water used for drinking water. Copper is needed for all living things to survive. A person's diet should include small amounts of copper in order to be healthy. While copper is important to our health, high amounts can be harmful.

What health problems can copper cause?

Drinking water with high amounts of copper can cause upset stomach, vomiting, diarrhea, and stomach cramps. High amounts of copper have been linked to liver and kidney damage.

Formula-fed children under the age of one already get their needed copper from infant formula. Higher levels of copper from drinking water may cause an upset stomach or other health issues, as babies may be more sensitive to elevated copper levels.

In addition, people with rare diseases, like Wilson's Disease, can have problems getting rid of copper from their body. They should follow their doctor's recommendations, which may include avoiding extra sources of copper in certain foods, multivitamins and drinking water from copper pipes.

How does copper get into my drinking water?

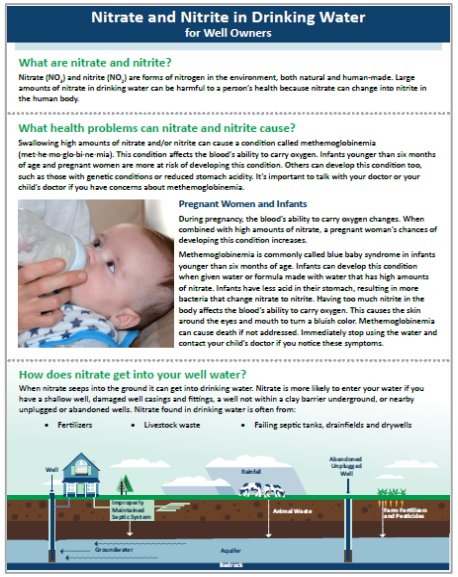
Copper can be found in groundwater and surface water used for drinking water. However, copper found in drinking water often comes from a home's pipes or faucets. When copper pipes get older, they may start to break down, letting the metal get into the water.

How much copper is permitted in my water?

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) and the US Environmental Protection Agency (EPA) limits how much copper and other chemicals can be in municipal drinking water. Currently, the action level is 1,300 parts per billion (ppb) for copper in drinking water. When 10 percent of tested homes on the same public water supply have copper above 1,300 parts per billion (ppb) in the water, the water supplier acts to lower the amount of copper in the water.

How do I know if copper is in my drinking water?

- Copper in water can cause blue-green stains on plumbing, such as sinks, faucets, and pipes. It can cause a metallic or bitter taste in drinking water.
- However, testing is the best way to know if copper is in your drinking water.
- Call your local health department or a certified laboratory to get a test kit. To learn more about test kit availability, fees, and instructions, visit Michigan.gov/EGLElab and click on "Drinking Water Laboratory."



Nitrate and Nitrite in Drinking Water
for Well Owners

What are nitrate and nitrite?

Nitrate (NO_3) and nitrite (NO_2) are forms of nitrogen in the environment, both natural and human-made. Large amounts of nitrate in drinking water can be harmful to a person's health because nitrate can change into nitrite in the human body.

What health problems can nitrate and nitrite cause?

Swallowing high amounts of nitrate and/or nitrite can cause a condition called methemoglobinemia (met-he-mo-glo-bi-ne-mia). This condition affects the blood's ability to carry oxygen. Infants younger than six months of age and pregnant women are more at risk of developing this condition. Others can develop this condition too, such as those with genetic conditions or reduced stomach acidity. It's important to talk with your doctor or your child's doctor if you have concerns about methemoglobinemia.

Pregnant Women and Infants

During pregnancy, the blood's ability to carry oxygen changes. When combined with high amounts of nitrate, a pregnant woman's chances of developing this condition increases.

Methemoglobinemia is commonly called blue baby syndrome in infants younger than six months of age. Infants can develop this condition when given water or formula made with water that has high amounts of nitrate. Infants have less acid in their stomach, resulting in more bacteria that change nitrate to nitrite. Having too much nitrite in the body affects the blood's ability to carry oxygen. This causes the skin around the eyes and mouth to turn a bluish color. Methemoglobinemia can cause death if not addressed. Immediately stop using the water and contact your child's doctor if you notice these symptoms.

How does nitrate get into your well water?

When nitrate seeps into the ground it can get into drinking water. Nitrate is more likely to enter your water if you have a shallow well, damaged well casings and fittings, a well not within a clay barrier underground, or nearby unplugged or abandoned wells. Nitrate found in drinking water is often from:

- Fertilizers
- Livestock waste
- Failing septic tanks, drainfields and drywells

Coliform Bacteria in Drinking Water
for Well Owners

What are coliform bacteria?

Coliform bacteria are found in soil, surface water, on plants, and in the intestines of warm-blooded animals and people. One type of coliform bacteria called *Escherichia coli* (*E. coli*) is a sign that fecal waste is in the water. Some types of *E. coli* in drinking water can make you sick.

What health problems can coliform bacteria cause?

Most coliform bacteria are not harmful. However, some can make you sick. A person that has been exposed to these bacteria may have an upset stomach, vomiting, fever, or diarrhea. Children and the elderly are more at risk from these bacteria.

Take *E. coli* bacteria seriously when found in drinking water. Some *E.coli* can make you sick or even cause death.

Vomiting	Upset Stomach
Fever	Diarrhea

How does coliform bacteria get into your well water?

When coliform bacteria are washed into the ground by rain, melting snow, or irrigation, it can get into drinking water. Coliform bacteria can be from:

- Woodlands, pastures, or feedlot runoff
- Wild or domestic animal waste
- Poorly maintained septic systems

Coliform bacteria can enter your water if you have:

- A damaged wellhead (the part of the well that's above ground) including the casing and/or well caps
- An unplugged or abandoned well in the area
- A new well not properly disinfected
- Drinking water pipes connected to non-drinking water sources such as waste water, laundry sinks, or garden hoses

Damaged wellhead with cracked well cap and exposed wires

Photo provided by Barry-Eaton District Health Department

MI WELL WATER

START

Well Water Test Maze

Testing water is the only way to know if your water is safe to drink! Contaminants can enter the water used for drinking. Some can be harmful to your health.

Make your way through the maze to collect a water sample for testing.

TEST!

MDHHS

To learn what to test your drinking water for and how, visit https://bit.ly/39uwrhO

MPART

Direct Mailer

Initiative

MDHHS
Michigan Department of Health & Human Services

Having a private residential well means that you are responsible for your own water system. This includes taking care of your well system to protect your drinking water and health.

Natural and Human-made contaminants can enter your water unnoticed as many have no smell, taste, or color. Some can be harmful to your health. Proper well maintenance and regular water testing can help protect the health of you and your family.

Work with your local health department or a Michigan registered water well driller if you have questions about your well or if you find any problems with your well.

Visit Michigan.gov/EnviroHealth to learn how to protect your private residential well drinking water and your health!

Well Drillers, Home Inspectors, & Realtors

Initiative

MPART

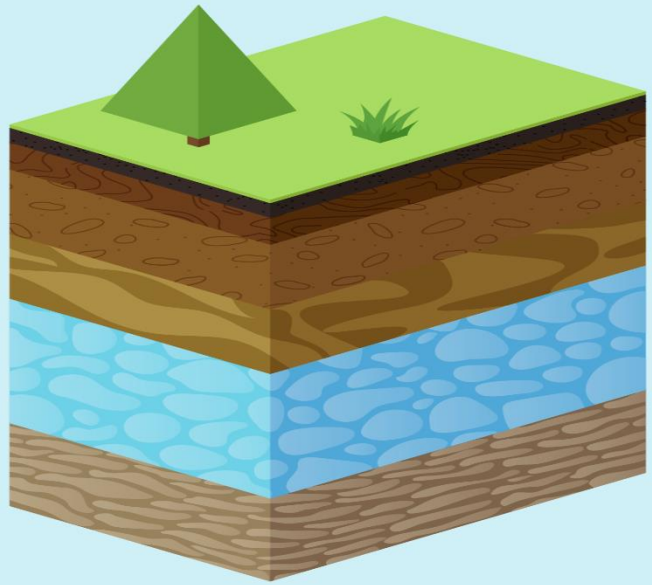
Well Assessed

Project

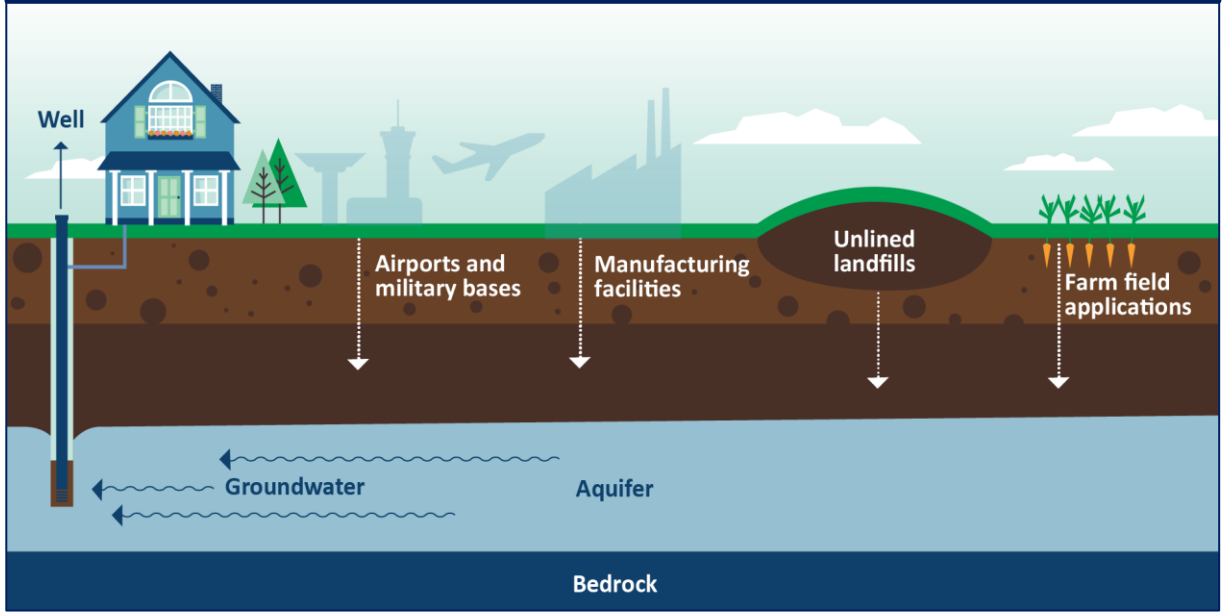
MPART

What might be in the groundwater you drink?

Natural Sources



Human-made Sources



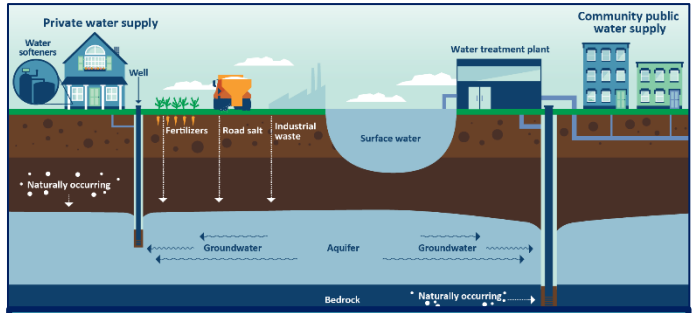
MPART

Learn more and help us share!

Share our "Care for MiWell" Website!

Subscribe to our newsletter and share!

Let us know about local events!



Share MDHHS-DEH social media posts! First Wednesday of every month.

MPART

CAWG Subcommittee Updates

Engaging the Public Subcommittee

Web Review Subcommittee

MPART Updates

Topic Update

- 170 Sites
  - Former Falk Road Landfill
  - Production Rubber Products
  - Manistee Blacker Airport
  - Shiawassee Sanitary Landfill
- PFOMS – Fire Fighter Surveillance
- Email Sharing and Responses
- Community Liaisons/Advocates

MPART Agency Updates

Community Feedback

- Have you participated in any outreach events?
- Recent lessons learned?
- New recommendations?

**Especially related to engaging, empowering, and educating residents*

July 13th Meeting or August 10?

- Topics?

MICHIGAN PFAS ACTION RESPONSE TEAM (MPART)

www.Michigan.gov/PfasResponse

EGLE
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Michigan Department of AGRICULTURE & Rural Development

MDHHS
Michigan Department of Health & Human Services

MDOT
Michigan Department of Transportation

DEPARTMENT OF NATURAL RESOURCES DNR MICHIGAN

LARA
LICENSING AND REGULATORY AFFAIRS
CUSTOMER DRIVEN. BUSINESS MINDED.

DEPARTMENT OF MILITARY AND VETERANS AFFAIRS MICHIGAN