



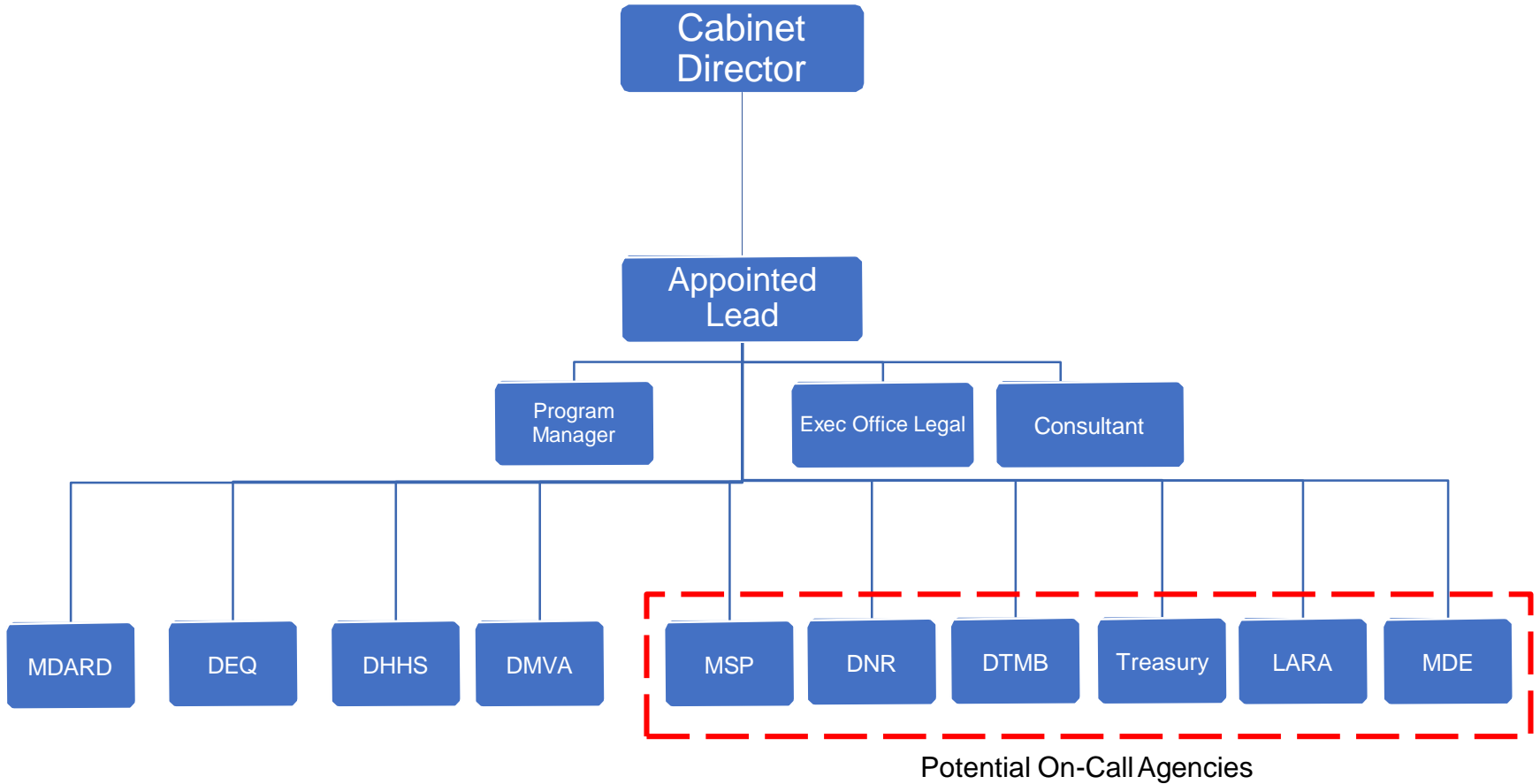
Michigan PFAS Action Response

Executive Directive 2017-4, establishes the
Michigan PFAS Action Response Team (MPART)

MPART DIRECTOR – CAROL ISAACS JD



Michigan PFAS Action Responses Team





Taking Action, Protecting Michigan

“To safeguard Michiganders from this emerging contaminant, it’s critical that responding agencies at all levels are effectively communicating and coordinating efforts.”

Gov. Rick Snyder

- Taking immediate action to mitigate risks to public health and protect environment.
- Studying the science and working with national experts to obtain the most up-to-date information.
- Working daily to identify potential locations for additional testing, environmental clean up and monitoring.
- Working to provide interim and long term solutions to this issue.



PFAS -

Sometimes called PFCs, are a group of chemicals that are resistant to heat, water, and oil.

- Per- and polyfluoroalkyl substances (PFAS), sometimes called PFCs, are a group of chemicals that are resistant to heat, water, and oil.
- PFAS have been classified by the U.S. Environmental Protection Agency (EPA) as an emerging contaminate on the national landscape.
- For decades, they have been used in many industrial applications and consumer products such as carpeting, waterproof clothing, upholstery, food paper wrappings, fire-fighting foams, and metal plating.
- These chemicals are persistent, which means they do not break down in the environment.



PFAS cont.

- Studies in people who were exposed to PFAS found links between the chemicals and increased cholesterol, changes in the body's hormones and immune system, decreased fertility, and increased risk of certain cancers.
- They also bioaccumulate, meaning the amount builds up over time in the human body.
- The EPA has set a lifetime health advisory level (LTHA) of 70 PPT, combined, for two PFAS in drinking water: perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS).
- THE PFOA and PFOS LTHA is the level, or amount, below which no harm is expected from these chemicals. There are other PFAS compounds that do not have LTHA levels.



Michigan's Plan

- **Organizational Response – Formation of MPART**
 - Ten State Departments, along with federal and local partners.
 - Leadership, consultations, advisory boards
- **State Protocols for PFAS Response**
 - Responding to military base analysis, citizen complaints and historical data. 14 areas. 30 testing sites.
 - Following the data, mapping all the contamination.
 - Individual wells and municipal wells.
 - 45% of Michigan resident's drinking water comes from groundwater. 2.6M residents served by wells.
 - Tracking ground water contamination - plumes.
- **Establishing Standards**
 - Advisory levels are not enough to establish enforceable action by a state.
 - Science Based Standards
 - PFOA and PFOS and other analytes now and in the future.



State of Michigan PFAS Standard and EPA Lifetime Health Advisory Level – 70 PPT

- Michigan set a State standard of 70 PPT for PFAS in drinking water on January 9, 2018.
- The EPA has set a lifetime health advisory level for two PFAS in drinking water:
 - Perfluorooctanoic acid (PFOA)
 - Perfluorooctane sulfonate (PFOS)

The lifetime health advisory level is 70 parts per trillion (ppt) for PFOA and PFOS combined.

- The PFOA and PFOS lifetime health advisory is the level, or amount, below which no harm is expected from these chemicals.
- There are other PFAS compounds that do not have lifetime advisory levels.
- We do not know everything about these chemicals. Scientific research continues.



Challenges

- **Funding**

- Meeting the costs – citizen wells and monitoring wells.
- Large amount of staff time – community outreach.
- Long Term Remediation.

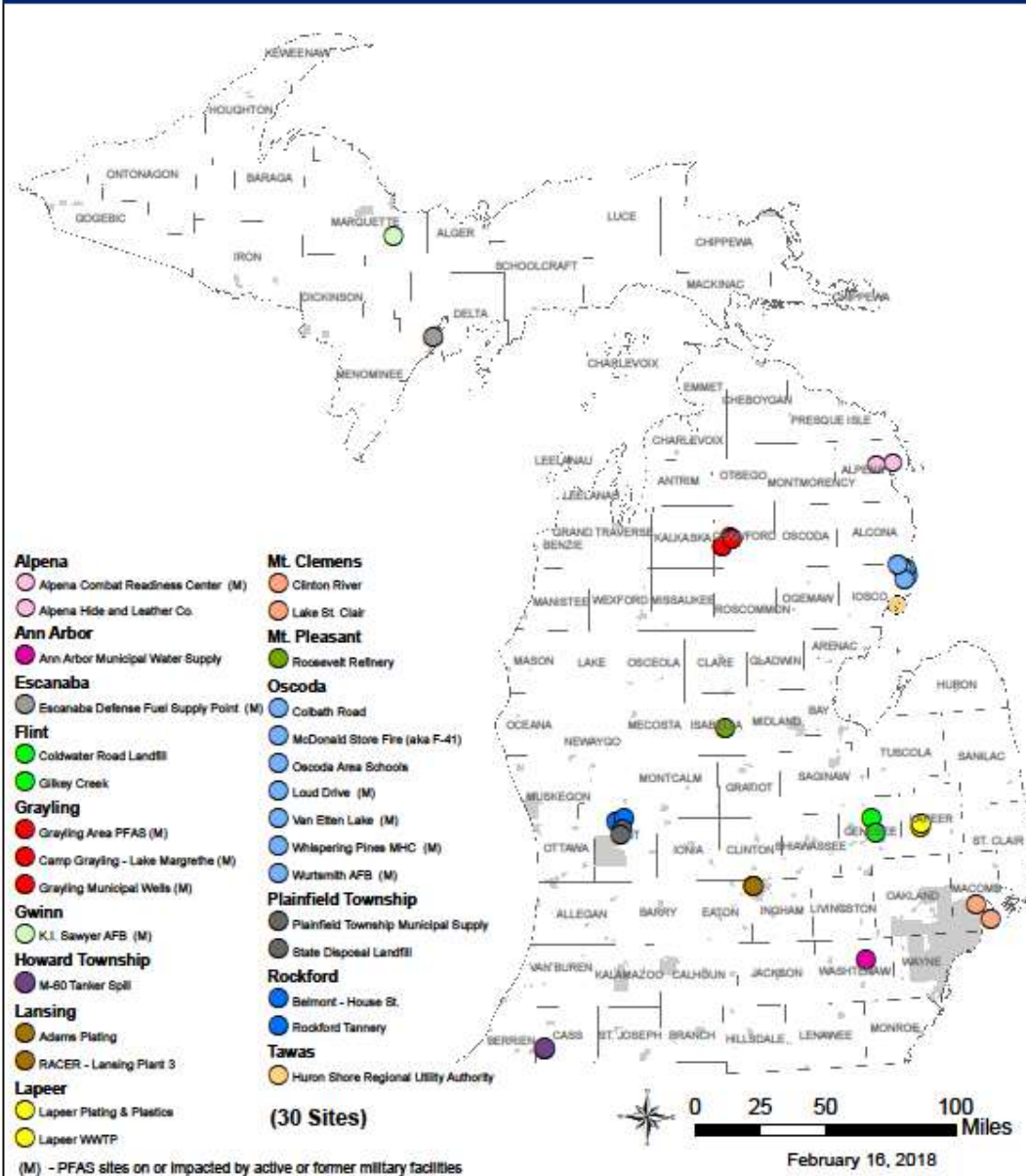
- **Outreach and Education**

- Communication is the key to successful management of a state's response to PFAS. Talk to legislators, mayors, township officials, school systems, businesses, county officials, etc.
- State's team must be fully integrated with the local partners.
- Communication is continual and intense. Citizens are highly educated on this issue.
- The legislature is a full partner. Regular updates about their specific area. Citizen calls to legislators.



Answering the Questions

- **What questions will legislators, mayors, township officials, state departments, etc. be asked?**
 - How did this happen?
 - Who is responsible?
 - Is my water safe to drink?
 - Has my family been harmed?
 - What regulatory standard is appropriate? What does the sound science say?





For more information about PFAS contamination and the coordinated efforts currently underway to address it in Michigan.

[Michigan.gov/pfasresponse](https://michigan.gov/pfasresponse)

State of Michigan Environmental Assistance Center
800-662-9278

MDHHS Toxicology Hotline
800-648-6942