

Michigan Office of Administrative Hearings and Rules

Administrative Rules Division (ARD)

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**REGULATORY IMPACT STATEMENT
and COST-BENEFIT ANALYSIS (RIS)**

Agency Information:

Department name:

Environment, Great Lakes and Energy

Bureau name:

Remediation and Redevelopment Division

Name of person filling out RIS:

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Rule Set Information:

ARD assigned rule set number:

2020-130 EQ

Title of proposed rule set:

Cleanup Criteria Requirements for Response Activity

Comparison of Rule(s) to Federal/State/Association Standard

1. Compare the proposed rules to parallel federal rules or standards set by a state or national licensing agency or accreditation association, if any exist.

There are no parallel promulgated federal rules for cleanup criterion to make a comparison. Several states have developed compliance requirements, screening levels, or other adopted standards for per- and polyfluoroalkyl substances (PFAS).

A. Are these rules required by state law or federal mandate?

No, there is not a state or federal mandate. This rule builds on the rules promulgated by the Department of Environment, Great Lakes, and Energy (EGLE) and approved by the Environmental Rules Review Committee (ERRC) in 2020 that established PFAS standards for safe water at public water supplies. This proposed rule will ensure that the drinking water of all Michigan citizens, whether from a public water supply or for a private well, are equally protected.

Section 20104(1) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), authorizes EGLE to promulgate rules. Michigan Compiled Laws (MCL) 324.20120a(17) mandates that the department shall promulgate all generic cleanup criteria and target detection limits as rules except in those circumstances where generic cleanup criteria are determined by MCL 324.20120a(5) and (23) and MCL 324.20120e(1)(a). Consistent with MCL 324.20120a(5) and Rule 299.6(11) EGLE replaced the existing generic cleanup criteria for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS) with the State Drinking Water Standards (SDWS), otherwise known as maximum contaminant levels, that were promulgated on August 3, 2020. These criteria are effective and legally enforceable by operation of law. MCL 324.20120a(23) requires that new generic cleanup criteria for Perfluorononanoic Acid (PFNA), Perfluorohexane Sulfonic Acid (PFHxS), Perfluorobutanesulfonic Acid (PFBS), Perfluorohexanoic Acid (PFHxA), and Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) that are published pursuant to this subsection take effect and are legally enforceable when published by the department if the department also initiates rulemaking to promulgate rules for the new criteria within 30 days.

B. If these rules exceed a federal standard, please identify the federal standard or citation, describe why it is necessary that the proposed rules exceed the federal standard or law, and specify the costs and benefits arising out of the deviation.

These rules do not exceed a federal standard.

2. Compare the proposed rules to standards in similarly situated states, based on geographic location, topography, natural resources, commonalities, or economic similarities.

The proposed rules' generic cleanup criteria for groundwater used for drinking water for PFAS were compared to groundwater or drinking water standards for PFAS of other U.S. Environmental Protection Agency Region 5 states. Minnesota [PFHxS] has values for drinking water or groundwater protection that are lower than the proposed generic cleanup criteria for groundwater used for drinking water for PFAS. (Source: January 2021 Interstate Technology Regulatory Council).

A. If the rules exceed standards in those states, please explain why and specify the costs and benefits arising out of the deviation.

This rule builds on the rules promulgated by EGLE and approved by the ERRC in 2020 that established PFAS standards for safe water at public water supplies. This proposed rule will ensure that the drinking water of all Michigan citizens, whether from a public water supply or for a private well, are equally protected. Currently nearly 3 million people obtain their drinking water from a private well. Individuals using these wells are not currently protected from PFAS contamination to the same degree that citizens who obtain their water from a public water supply are protected.

This rule also creates regulatory certainty for individuals that cause or are impacted by PFAS contamination in groundwater used for drinking water. Michigan uses the generic cleanup criteria to determine "facility" status. Determining facility status is the threshold for all responsibilities and requirements of the cleanup program. Michigan's generic cleanup criteria also provides a party responsible for addressing a contaminant with an initial screening tool to determine if response activities or other actions should be taken at a contaminated site. A responsible party can use these generic cleanup criteria as their cleanup levels to achieve "no further action." A responsible party also has the ability to use site-specific criteria based on a site-specific risk assessment in lieu of the generic cleanup criteria.

3. Identify any laws, rules, and other legal requirements that may duplicate, overlap, or conflict with the proposed rules.

The proposed rules do not duplicate, overlap, or conflict with any other laws, rules, or legal requirements.

A. Explain how the rules have been coordinated, to the extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter. This section should include a discussion of the efforts undertaken by the agency to avoid or minimize duplication.

In accordance with the procedures established in Part 201, the generic criteria proposed in these regulations are identical to the SDWS promulgated on August 3, 2020, pursuant to the Supplying Water to the Public rules (R 325.10101 – R 325.12820) and Section 5 of the Safe Drinking Water Act, 1976 PA 399, as amended (MCL 325.1005). This ensures that all drinking water in Michigan is protected equally.

The following NREPA standards will apply to PFAS contamination governed by Part 201; Part 213, Leaking Underground Storage Tanks; Part 111, Hazardous Waste Management; Part 31, Water Resources Protection (groundwater discharge remediation); and Part 115, Solid Waste Management. This applicability creates consistency across all EGLE cleanup programs and ensures that all drinking water in the state is adequately and equitably protected.

4. If MCL 24.232(8) applies and the proposed rules are more stringent than the applicable federally mandated standard, provide a statement of specific facts that establish the clear and convincing need to adopt the more stringent rules.

MCL 24.232(8) does not apply as there are no federally mandated cleanup standards or criteria for PFAS in the groundwater. In any event, there is a “clear and convincing need” for these rules given the prevalence of PFAS contamination within the state and its potential impact on individual water supply wells that rely on groundwater as a drinking water source. The state and other entities have conducted extensive sampling for PFAS and have identified at least 154 sites where groundwater is impacted by the release of PFAS into the environment. This presents an ongoing risk to public health, safety, and welfare and the environment.

5. If MCL 24.232(9) applies and the proposed rules are more stringent than the applicable federal standard, provide either the Michigan statute that specifically authorizes the more stringent rules OR a statement of the specific facts that establish the clear and convincing need to adopt the more stringent rules.

MCL 24.232(9) does not apply as there are no applicable federal cleanup standards or criteria for PFAS in the groundwater.

Purpose and Objectives of the Rule(s)

6. Identify the behavior and frequency of behavior that the proposed rules are designed to alter.

These rules will provide the basis for identifying hazardous levels of PFAS in the environment and will assist responsible parties and the public with the information necessary to take actions that protect the public from unhealthy exposure to these hazardous substances.

A. Estimate the change in the frequency of the targeted behavior expected from the proposed rules.

This proposed rule would apply to any property where groundwater has been contaminated by PFAS above the state’s generic criteria for groundwater used for drinking water. EGLE does not have the data necessary to identify the number of locations potentially affected by groundwater contaminated with these PFAS, because there is not always a statutory obligation to report the discovery of PFAS contamination to the department.

To date, 154 locations have been identified where groundwater contaminated with PFAS is present above enforceable generic cleanup criteria for groundwater used for drinking water for PFOA and PFOS. The department has also identified locations where concentrations of PFNA, PFHxS, PFBS, PFHxA, and HFPO-DA have been detected above their respective criteria in addition to PFOA and PFOS. Since the same treatment technology can be used to address all seven PFAS, the department does not anticipate that additional actions would be required above and beyond those already required by the presence of PFOA and PFOS contamination.

B. Describe the difference between current behavior/practice and desired behavior/practice.

On December 15, 2020, EGLE published the proposed generic cleanup criteria for groundwater used for drinking water for PFNA, PFHxS, PFBS, PFHxA, and HFPO DA pursuant to MCL 324.20120a(23). This proposed rule codifies these generic cleanup criteria pursuant to MCL 324.20120a(5). Completing this step as required by Part 201, Michigan will be able to ensure that all drinking water, irrespective of source, is protected from PFAS equally.

C. What is the desired outcome?

This proposed rule will protect Michigan citizens from potential health impacts caused by PFAS contamination. It equally protects all Michigan citizens' drinking water from PFAS contamination regardless if a person's source of drinking water is a regulated municipal water supply system or an individual water supply well that relies on groundwater.

7. Identify the harm resulting from the behavior that the proposed rules are designed to alter and the likelihood that the harm will occur in the absence of the rule.

Exposure to PFAS chemicals has been shown to cause numerous adverse health impacts. The Science Advisory Workgroup (SAW) assigned by the Michigan PFAS Action Response Team (MPART) identified seven PFAS contaminants of concern for which, in their professional judgement, there was enough scientific evidence to establish Health-Based Values (HBVs). HBVs establish a level of contamination below which there is not expected to be adverse health impacts. The generic criteria established in this proposed rule are consistent with these HBV and the SDWS established in 2020. This rule ensures that all drinking water in the state is protected, regardless of whether the drinking water comes from a public water supply or a private well.

A. What is the rationale for changing the rules instead of leaving them as currently written?

MCL 324.20120a(23) requires the department to initiate rulemaking to promulgate rules for any criteria that are established for a hazardous substance that does not have any generic criteria. Part 201 also defines that the generic criteria for groundwater used for drinking water have the same value as a SDWS established in accordance with the SDWA.

8. Describe how the proposed rules protect the health, safety, and welfare of Michigan citizens while promoting a regulatory environment in Michigan that is the least burdensome alternative for those required to comply.

The fundamental objective of the Remediation and Redevelopment Division (RRD) programs is to manage risks from environmental contamination in a manner that is protective of public health, safety, and welfare and the environment. The proposed promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS is designed to meet this objective. The use of the proposed generic cleanup criteria for groundwater used for drinking water for PFAS to support risk management decisions provides a less burdensome alternative than the development of site-specific criteria or conducting a site-specific risk assessment. Most response activity relying upon generic cleanup criteria can be self-implemented by liable parties or potential owners of contaminated properties, reducing transaction costs. Development of site-specific criteria or reliance on a site-specific risk assessment requires EGLE involvement in review and approval to ensure the protection of public health, safety, and welfare and the environment, increasing the expenditure of time and money for the development of site-specific criteria and subsequent interactions. Statutory risk management options do not require remediation (cleanup, removal, treatment, etc.) using the generic cleanup criteria. The statutory alternatives offer flexibility to the regulated community to select response activity necessary to safely manage the risk associated with the contamination.

The proposed generic cleanup criteria for groundwater used for drinking water for PFAS also allows the least burdensome alternative to determine a property is a "facility" for property transactions. The proposed generic cleanup criteria for groundwater used for drinking water for PFAS allows a more accurate evaluation of the risk represented by the contamination for a purchaser without requiring the development of site-specific criteria or a site-specific environmental assessment. Purchasers of properties can limit their liability for cleanup of past environmental concerns based upon generic cleanup criteria. Financial institutions rely on the generic cleanup criteria to evaluate whether properties are "facilities" that give rise to environmental response obligations at properties for which they may acquire an interest or provide loan funds. Brownfield financial incentives, such as grants, loans, and tax increment financing, are available to properties meeting the definition of a "facility." Brownfield redevelopment incentives promote the reuse of contaminated properties in a manner that is protective of public health, safety, and welfare and the environment.

9. Describe any rules in the affected rule set that are obsolete or unnecessary and can be rescinded.

This rule package does not propose to rescind rules that are obsolete or unnecessary.

Fiscal Impact on the Agency

Fiscal impact is an increase or decrease in expenditures from the current level of expenditures, i.e. hiring additional staff, higher contract costs, programming costs, changes in reimbursements rates, etc. over and above what is currently expended for that function. It does not include more intangible costs for benefits, such as opportunity costs, the value of time saved or lost, etc., unless those issues result in a measurable impact on expenditures.

10. Please provide the fiscal impact on the agency (an estimate of the cost of rule imposition or potential savings for the agency promulgating the rule).

The proposed promulgation of generic cleanup criteria for groundwater used for drinking water for these PFAS result in minimal change to the existing fiscal impact to EGLE. EGLE costs for training, training materials, and outreach for rule implementation are expected to be minimal. The proposed rules will be implemented using existing resources.

11. Describe whether or not an agency appropriation has been made or a funding source provided for any expenditures associated with the proposed rules.

There have been no agency appropriations or funding sources provided for any expenditures directly related to these proposed rules.

12. Describe how the proposed rules are necessary and suitable to accomplish their purpose, in relationship to the burden(s) the rules place on individuals. Burdens may include fiscal or administrative burdens, or duplicative acts.

Failure to establish these standards puts public health at risk. These standards are necessary to protect the public from the risk of drinking groundwater contaminated by PFAS.

The promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS, by itself, does not impose any burden on an individual. However, if an individual is responsible for a site of PFAS contamination, then it is not unreasonable to expect that there will be costs to address the pollutants that they are responsible for to ensure citizens are not harmed by the contamination. To the same extent when the state undertakes cleanup actions at orphan sites it will be subject to these same expectations in order to protect public health.

Compliance obligations are embodied in the remedial action or corrective action requirements of the statutes that rely upon the generic cleanup criteria. Any fiscal or administrative burdens associated with these rules would be incurred in the same manner as those necessary to comply with statutory obligations to address the release of any hazardous substance.

A. Despite the identified burden(s), identify how the requirements in the rules are still needed and reasonable compared to the burdens.

Failure to establish these rules will leave roughly 3 million Michiganders who rely on a private well for their drinking water without the assurances that their drinking water will be safe from PFAS contamination. These citizens deserve the same protections that Michigan provides to the 7 million citizens who are connected to a public water supply.

Impact on Other State or Local Governmental Units

13. Estimate any increase or decrease in revenues to other state or local governmental units (i.e. cities, counties, school districts) as a result of the rule. Estimate the cost increases or reductions for other state or local governmental units (i.e. cities, counties, school districts) as a result of the rule. Include the cost of equipment, supplies, labor, and increased administrative costs in both the initial imposition of the rule and any ongoing monitoring.

While it is possible that a local government unit may be responsible for causing a release of PFAS that affects groundwater, it is more likely that they are impacted by a release caused by another party. Many communities are currently struggling to pay for water supply lines that will allow residents who have a contaminated well to get a safe alternative for water. Michigan has some communities where key development opportunities are stopped because a site has PFAS-contaminated groundwater. The burden that PFAS contamination has placed on Michigan communities is real and significant.

The generic cleanup criteria rules facilitate property transactions to occur and, therefore, enable the redevelopment and reuse of previously contaminated, vacant properties. Redevelopment of abandoned properties has been documented to increase the property values of the surrounding neighborhood, adding to the increase of local tax revenue.

If a local government was responsible for the release and, as a result, is subject to state statutes governing the cleanup of contamination, the costs associated with the cleanup would vary location to location depending on a number of factors – the proximity of wells used for drinking water supply, the ability to contain and properly manage the release, the volume and concentration of the pollutant in the groundwater, etc. Because of this variability, EGLE is unable to quantify any significant impact on gross revenues to other state or local governmental units as a result of the promulgation of the generic cleanup criteria for groundwater used for drinking water for these PFAS.

14. Discuss any program, service, duty, or responsibility imposed upon any city, county, town, village, or school district by the rules.

The proposed promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS, by itself, does not impose any new programs, services, duties, or responsibilities upon any city, county, town, village, or school district simply due to their rural location. Where a city, county, town, village, or school district is the owner or operator responsible for a site of PFAS contamination, there may be costs of compliance associated with these rules that would be incurred in the same manner as those necessary to comply with statutory obligations to address the release of any hazardous substance.

A. Describe any actions that governmental units must take to be in compliance with the rules. This section should include items such as record keeping and reporting requirements or changing operational practices.

These proposed rules do not establish any new compliance requirements. Existing statutes, including Parts 201, 213, 111, 31, and 115, dictate the administrative and technical requirements associated with addressing a contaminated facility.

15. Describe whether or not an appropriation to state or local governmental units has been made or a funding source provided for any additional expenditures associated with the proposed rules.

An appropriation to state or local governmental units has not been made or a funding source provided for any additional expenditures that are directly related to these proposed rules. However, to date, Michigan has provided over \$150 million for statewide PFAS response efforts and financial assistance to local governments to help them pay for PFAS contamination impacting their communities.

Rural Impact

16. In general, what impact will the rules have on rural areas?

The presence of PFAS in the environment poses a risk to public health and the environment no matter where PFAS comes to be located. Rural areas may have a higher percentage of people who rely on individual water supply wells that use groundwater as a drinking water source.

These proposed rules will ensure that the drinking water of all Michigan citizens, whether from a public water supply or from a private well, are equally protected. The proposed rules for the generic cleanup criteria for groundwater used for drinking water for PFAS will allow for appropriate risk management decisions with respect to sites of environmental contamination in rural areas that are necessary to protect public health and the environment.

A. Describe the types of public or private interests in rural areas that will be affected by the rules.

Citizens in rural Michigan will be assured that their drinking water is being protected from PFAS contamination to the same degree that citizens who get their drinking water from a public water supply are having their drinking water protected.

If an entity in rural Michigan is responsible for addressing a release of PFAS to groundwater used for drinking water, the proposed rules do not result in additional costs simply due to the rural location. It is possible that the cost to address a release of PFAS in a rural area could have some additional costs because rural areas often have a higher percentage of the population that rely on individual water supply wells as a drinking water source.

Environmental Impact

17. Do the proposed rules have any impact on the environment? If yes, please explain.

The fundamental objective of the RRD programs is to manage risks from environmental contamination in a manner that is protective of public health and the environment. Groundwater contaminated by PFAS can transport PFAS to nearby surface waters, which can adversely affect environmental health and quality. While these rules are focused on the prevention of public health impacts to humans caused by drinking PFAS-contaminated groundwater, any cleanup activities resulting from providing their protection will undoubtedly benefit the environment as well.

Small Business Impact Statement

18. Describe whether and how the agency considered exempting small businesses from the proposed rules.

Exempting small businesses from the proposed rules was not appropriate for this rule. The proposed PFAS generic cleanup criteria for groundwater used for drinking water apply to all businesses, regardless of size. While EGLE can work with small businesses to identify reasonable solutions for addressing PFAS, the level of protection provided to citizens exposed to PFAS should not be adjusted based on the size of the facility responsible for the contamination.

19. If small businesses are not exempt, describe (a) the manner in which the agency reduced the economic impact of the proposed rules on small businesses, including a detailed recitation of the efforts of the agency to comply with the mandate to reduce the disproportionate impact of the rules upon small businesses as described below (in accordance with MCL 24.240(1)(a-d)), or (b) the reasons such a reduction was not lawful or feasible.

There is no provision for addressing a small business' compliance obligations differently within the statutes since there is no relationship between the size of a business, the environmental contamination related to a business, and the risk to public health, safety, and welfare and the environment. However, EGLE routinely uses enforcement discretion with regards to the financial viability of a particular business and do a formal assessment of a person's ability to pay for the necessary remedial actions or corrective actions when pursuing compliance and enforcement alternatives.

A. Identify and estimate the number of small businesses affected by the proposed rules and the probable effect on small businesses.

EGLE does not have the necessary data to estimate the number of small businesses responsible for the PFAS contamination because there is not always a statutory obligation to report the discovery of PFAS contamination to the department. In addition, any person can self-implement actions necessary to address the risks associated with PFAS contamination without department approval.

B. Describe how the agency established differing compliance or reporting requirements or timetables for small businesses under the rules after projecting the required reporting, record-keeping, and other administrative costs.

EGLE did not establish differing compliance or reporting requirements or timetables specific to small businesses. The proposed promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS, by itself, does not impose any additional compliance or reporting obligations. The obligations to address the release of any hazardous substance to the environment are embodied in the remedial action or corrective action requirements of the statutes that rely upon the generic cleanup criteria. The proposed promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS does not impact the requirements for reporting and recordkeeping under any of the programs' statutory provisions.

C. Describe how the agency consolidated or simplified the compliance and reporting requirements for small businesses and identify the skills necessary to comply with the reporting requirements.

The proposed promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS does not contain any additional reporting requirements.

D. Describe how the agency established performance standards to replace design or operation standards required by the proposed rules.

The proposed revision and promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS does not include design and operating standards.

20. Identify any disproportionate impact the proposed rules may have on small businesses because of their size or geographic location.

The proposed promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS will not impact small businesses specifically because of their size or location. The impact of these rules is proportional to the nature and extent of the release of PFAS to the environment and the actions necessary to protect public health, safety, and welfare and the environment. This is true for the release of any hazardous substance regardless of who is responsible.

21. Identify the nature of any report and the estimated cost of its preparation by small businesses required to comply with the proposed rules.

The proposed promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS, by itself, does not impose any obligation for a small business to prepare a report for submission to the agency.

22. Analyze the costs of compliance for all small businesses affected by the proposed rules, including costs of equipment, supplies, labor, and increased administrative costs.

The proposed promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS, by itself, does not impose any compliance obligations. The cost of compliance, including costs of equipment, supplies, labor, and increased administrative costs with respect to the implementation of remedial or corrective action relying on the proposed rules, would be incurred in the same manner as those costs to comply with statutory obligations to address the release of any hazardous substance.

The cost to a business to comply with statutory obligations resulting from the contamination at a site are dependent on the type and level of contamination present at a site, the amount and quality of environmental data already known about a site, the type of use of the site, as well as the response activities selected for managing the risks presented by the environmental contamination.

23. Identify the nature and estimated cost of any legal, consulting, or accounting services that small businesses would incur in complying with the proposed rules.

The proposed promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS, by itself, does not impose any compliance obligations. The cost of any legal, consulting, or accounting services would be incurred in the same manner as those costs to comply with statutory obligations to address the release of any hazardous substance.

As previously stated, the cost to a business to comply with statutory obligations resulting from the contamination at a site are dependent on the type and level of contamination present at a site, the amount and quality of environmental data already known about a site, the type of use of the site, as well as the response activities selected for managing the risks presented by the environmental contamination.

24. Estimate the ability of small businesses to absorb the costs without suffering economic harm and without adversely affecting competition in the marketplace.

It is not expected that these rules will adversely affect competition in the marketplace. All businesses that are liable for a release of hazardous substances into the environment are required by statute to address the risks posed by the contamination. There are costs associated with those responsibilities, but as stated above, those costs vary depending on the specifics at the site. EGLE routinely uses enforcement discretion with regards to the financial viability of a particular business and does a formal assessment of a person's ability to pay for the necessary remedial actions or corrective actions when pursuing compliance and enforcement alternatives.

25. Estimate the cost, if any, to the agency of administering or enforcing a rule that exempts or sets lesser standards for compliance by small businesses.

EGLE will not incur any additional costs since the proposed revisions do not specifically exempt or set lesser standards for compliance for small businesses.

26. Identify the impact on the public interest of exempting or setting lesser standards of compliance for small businesses.

There would be an adverse impact to the public if small businesses were exempt or the rules set lesser standards of compliance for small businesses. If a private well is impacted from PFAS contamination originating from a small business, the residents who depend on that well will be at risk. These citizens deserve the same protections that Michigan provides to the 7 million citizens who are connected to a public water supply.

In the event that a small business responsible for a PFAS release fails to appropriately act, the burden to abate the risks caused by the release would be placed on limited public resources.

27. Describe whether and how the agency has involved small businesses in the development of the proposed rules.

In consideration of the proposed rules for the generic cleanup criteria for groundwater used for drinking water for PFAS, EGLE held two public webinars on November 2 and November 16, 2020. In order to facilitate participation for those who were unable to attend these live webinars, the webinars were also recorded for future viewing.

In addition to the webinars, EGLE allowed for a three-week public comment period after the second webinar to allow interested parties to submit comments regarding whether the process for establishing the proposed generic cleanup criteria for groundwater used for drinking water for PFAS followed the regulations under Part 201. An estimated 232 individuals representing federal, state and local governments, large and small businesses, tribal entities, and associations that represent large and small businesses participated in the webinars.

A. If small businesses were involved in the development of the rules, please identify the business(es).

No individual small businesses were directly involved in the development of the proposed rules.

Cost-Benefit Analysis of Rules (independent of statutory impact)

28. Estimate the actual statewide compliance costs of the rule amendments on businesses or groups.

The proposed promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS, by itself, does not impose any compliance obligations. The cost of compliance would be incurred in the same manner as those costs to comply with statutory obligations to address the release of any hazardous substance. In this case, there will be increased costs if a person (i.e., individual, small or large business, federal, state or local unit of government, etc.) is the owner or operator responsible for a site of PFAS groundwater contamination.

EGLE does not have the ability to estimate the actual statewide compliance costs of the rule amendments on business [or individuals] since the statute does not always require a responsible party to report the presence of PFAS groundwater contamination. To date, 154 locations have been identified where groundwater contaminated with PFAS is present above enforceable generic cleanup criteria for groundwater used for drinking water for PFOA and PFOS. EGLE has also identified locations where concentrations of PFNA, PFHxS, PFBS, PFHxA, and HFPO-DA have been detected above their respective criteria in addition to PFOA and PFOS. Since the same treatment technology can be used to address all seven PFAS, the department does not anticipate that additional actions would be required above and beyond those already required by the presence of PFOA and PFOS contamination.

The costs associated with each cleanup would vary location to location depending on a number of factors – the proximity of wells used for the drinking water supply, the ability to contain and properly manage the release, the volume and concentration of the pollutant in the groundwater, etc.

A. Identify the businesses or groups who will be directly affected by, bear the cost of, or directly benefit from the proposed rules.

Small and large businesses that used products containing PFAS may be directly impacted, if those businesses are responsible for an activity causing a release of the products containing PFAS.

Businesses engaging in property transactions for the redevelopment of contaminated property will benefit from the liability protections that these proposed rules will provide.

The public will directly benefit because the proposed rules will establish cleanup criteria intended to protect public health and the environment and will establish a basis for persons liable for the release of PFAS for undertaking response activities necessary for protecting public health and the environment.

B. What additional costs will be imposed on businesses and other groups as a result of these proposed rules (i.e. new equipment, supplies, labor, accounting, or recordkeeping)? Please identify the types and number of businesses and groups. Be sure to quantify how each entity will be affected.

EGLE does not have the ability to quantify the additional costs of education, training, application fees, examination fees, new equipment, supplies, labor, accounting, or recordkeeping for the public or regulated individuals. Not only are there no reporting requirements to estimate the number of sites that have PFAS groundwater contamination, but a person can self-implement actions necessary to address the risks associated with PFAS contamination without department approval and there is no requirement to report the costs of these actions to EGLE.

29. Estimate the actual statewide compliance costs of the proposed rules on individuals (regulated individuals or the public). Include the costs of education, training, application fees, examination fees, license fees, new equipment, supplies, labor, accounting, or recordkeeping.

The proposed promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS, by itself, does not impose any compliance obligations. The cost of compliance would be incurred in the same manner as those costs to comply with statutory obligations to address the release of any hazardous substance. The proposed rules will only result in increased costs for statutory compliance relative to the cost to comply with the current generic cleanup criteria rules where a person (i.e., individual, small or large business, federal, state or local unit of government, etc.) is the owner or operator responsible for a site of PFAS groundwater contamination.

EGLE does not have the ability to estimate the actual statewide compliance costs of the rule amendments on business [or individuals] since there are no reporting requirements to estimate the number of sites that have PFAS groundwater contamination or the potential additional response activities that may be necessary. In addition, a person can self-implement actions necessary to address the risks associated with PFAS contamination without department approval and there is no requirement to report the costs of these actions to EGLE.

There are no known costs for education, training, application fees, examination fees, new equipment, supplies, labor, accounting, or recordkeeping as a result of these proposed rules.

A. How many and what category of individuals will be affected by the rules?

EGLE does not have data with respect to the number of sites affected by groundwater contaminated with these PFAS, because there is no statutory obligation to report the discovery of PFAS contamination to the department.

To date, EGLE has identified 154 facilities where PFAS exceeds the generic cleanup criteria for groundwater used for drinking water for PFOA and PFOS. EGLE has also identified locations where concentrations of PFNA, PFHxS, PFBS, PFHxA, and HFPO-DA have been detected above their respective criteria in addition to PFOA and PFOS. These facilities are comprised of large and small businesses, public and privately owned or operated waste disposal areas, military installations, and other locations.

These proposed rules will protect Michigan citizens from potential health impacts caused by PFAS contamination. It equally protects all Michigan citizens' drinking water from PFAS contamination regardless of whether a person's source of drinking water is a regulated municipal water supply system or an individual water supply well that relies on groundwater. Roughly 3 million Michiganders rely on a private well for their drinking water. These rules will protect those residents.

B. What qualitative and quantitative impact do the proposed changes in rules have on these individuals?

EGLE does not have the ability to estimate the qualitative and quantitative impact of actual statewide compliance costs of the proposed rules on business [or individuals] since there are no reporting requirements to estimate the number of sites that have PFAS groundwater contamination or the potential additional response activities that may be necessary to protect public health or the environment. There are no known costs for education, training, application fees, examination fees, new equipment, supplies, labor, accounting, or recordkeeping for the public or regulated individuals.

30. Quantify any cost reductions to businesses, individuals, groups of individuals, or governmental units as a result of the proposed rules.

The proposed promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS, by itself, does not impose any costs to these entities; therefore, these proposed rules are not expected to result in any significant cost reductions to businesses, individuals, groups, of individuals, or governmental units. The cost of compliance would be incurred in the same manner as those costs to comply with statutory obligations to address the release of any hazardous substance.

For the entities responsible for the release of PFAS, the proposed rules would establish generic criteria that would provide a cost savings by avoiding the additional costs of developing site-specific criteria or conducting site-specific risk assessments.

These proposed rules also would allow property owners or prospective purchasers of properties to use generic cleanup criteria to evaluate the risk from environmental conditions at the property, avoiding additional costs of developing site-specific criteria or conducting a site-specific risk assessment.

The promulgation of the proposed rules may result in cost reductions to the state of Michigan by establishing an enforceable standard that will allow the state of Michigan to expect response activities from parties responsible for the release of PFAS.

31. Estimate the primary and direct benefits and any secondary or indirect benefits of the proposed rules. Please provide both quantitative and qualitative information, as well as your assumptions.

These rules will provide the basis for identifying hazardous levels of PFAS in the environment and will assist responsible parties and the public with the information necessary to take actions that protect the public from unhealthy exposure to these hazardous substances.

32. Explain how the proposed rules will impact business growth and job creation (or elimination) in Michigan.

The proposed rules will continue to facilitate the sale and redevelopment of contaminated properties based upon scientifically sound risk management for the protection of public health, safety, and welfare and the environment. Businesses engaging in property transactions for the redevelopment of contaminated property will benefit from the liability protections that these proposed rules will provide. The redeveloped properties result in investment in communities, create jobs, improve property values, and provide increased tax revenue to state and local units of government.

33. Identify any individuals or businesses who will be disproportionately affected by the rules as a result of their industrial sector, segment of the public, business size, or geographic location.

The proposed promulgation of the generic cleanup criteria for groundwater used for drinking water for PFAS, by itself, will not disproportionately affect businesses. Only those individuals or businesses responsible for PFAS contamination will be affected. There is no known affect from the proposed rules to specific segments of the public, industrial sectors, business size, and geographic location other than those that have used and released PFAS to the environment.

34. Identify the sources the agency relied upon in compiling the regulatory impact statement, including the methodology utilized in determining the existence and extent of the impact of the proposed rules and a cost-benefit analysis of the proposed rules.

EGLE relied upon department experts and information obtained from existing EGLE data sources in the determination of the impact and estimated costs related to the proposed rules.

A. How were estimates made, and what were your assumptions? Include internal and external sources, published reports, information provided by associations or organizations, etc., that demonstrate a need for the proposed rules.

Reliable, quantifiable estimates cannot be made without knowing the entire universe of sites and the nature and extent of PFAS contamination. As previously stated, the cost to comply with statutory obligations resulting from PFAS contamination at a site are dependent on the type and level of contamination present at a site, the amount and quality of environmental data already known about a site, the type of use of the site, as well as the response activities selected for managing the risks presented by the environmental contamination. In addition, a person can self-implement actions necessary to address the risks associated with PFAS contamination without department approval. As a result, there is not reliable data available to EGLE.

Alternative to Regulation

35. Identify any reasonable alternatives to the proposed rules that would achieve the same or similar goals.

EGLE has not identified any reasonable alternatives. Failure to establish these rules will leave roughly 3 million Michiganders who rely on a private well for their drinking water without the assurances that their drinking water will be safe from PFAS contamination. These citizens deserve the same protections that Michigan provides to the 7 million citizens who are connected to a public water supply.

A. Please include any statutory amendments that may be necessary to achieve such alternatives.

EGLE has not identified a reasonable alternative or any statutory amendments that may be necessary to achieve an alternative, if one existed.

36. Discuss the feasibility of establishing a regulatory program similar to that proposed in the rules that would operate through private market-based mechanisms. Please include a discussion of private market-based systems utilized by other states.

The development of cleanup standards is a state function rather than a private market-based system for other state cleanup programs. The development of site-specific cleanup standards may be required of private parties by other state programs, but the determination of whether the resulting standards are protective of public health, safety, and welfare and the environment is a state agency decision.

A few states have implemented licensed site remediation professional programs that oversee investigation and remediation of contaminated sites and certifies to the state agency full compliance with statute and rules. These programs require any party responsible for an existing or newly identified contaminated site to complete the remediation of the affected properties under specific time frames and regulations. The development of cleanup standards for these states was done by the state agency responsible for environmental protection. An extensive revision to Michigan's cleanup programs would be necessary to mirror these programs, including revisions to Michigan's unique causational liability scheme that has made brownfield redevelopment successful in Michigan.

37. Discuss all significant alternatives the agency considered during rule development and why they were not incorporated into the rules. This section should include ideas considered both during internal discussions and discussions with stakeholders, affected parties, or advisory groups.

As required by and in accordance with the statutory provisions of MCL 324.20120a(4), EGLE calculated and considered the health-based values for establishing the generic cleanup criteria for groundwater used for drinking water for the various PFAS. However, in accordance with the statutory provisions of MCL 324.20120a(5), the SDWS become the generic cleanup criteria for groundwater used for drinking water for the various PFAS, regardless of the calculated health-based values.

Additional Information

38. As required by MCL 24.245b(1)(c), please describe any instructions regarding the method of complying with the rules, if applicable.

Compliance obligations are embodied in the remedial action or corrective action requirements of the statutes that rely upon the generic cleanup criteria. Compliance with these rules would be expected to occur in the same manner as those who are responsible for the release of any hazardous substance. EGLE will continue to provide information to assist the regulated community in understanding its compliance obligations through outreach workshops, webinars, plain English fact sheets, and postings on its web page.