Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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January 28, 2019

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Dear Ms. Govern and Ms. Broude,

This letter is in response to your Petition for Rulemaking to Establish a Treatment Technique Drinking Water Standard for Per- and Polyfluoroalkyl Substances (PFAS), received by MassDEP on October 25, 2018. In accordance with regulatory requirements under 310 CMR 2.03 and 2.04, MassDEP held a public meeting on January 16, 2019 to consider the petition and to take comments on the petition. This opportunity allowed for representatives of the Conservation Law Foundation and the Toxics Action Center to present their views on the petition to 71 participants attending the meeting in person, and more than 80 watching via on-line stream. The public meeting also allowed for 21 stakeholders to formally offer their views. In addition, MassDEP received written comments from 45 different individuals and organizations. MassDEP greatly appreciates attention to this important matter from the petitioners, and the agency is very appreciative of the participation of all stakeholders through their written and oral comments, and attendance and viewing of the public meeting.

As explained in the Petition Action document attached, MassDEP will initiate the process, pursuant to all applicable statutes, rules and executive orders, for development of a drinking

water Maximum Contaminant Level (MCL) for a group of per- and polyfluororoalkyl substances (PFAS) that the Department has identified as posing a significant threat to human health and for which analytical methods exist for their detection and appropriate treatment technologies are available. The Department's approach will continue to be informed by the soon to be initiated process regarding groundwater cleanup standards under the MCP. The process for the development of the drinking water MCL will also be informed by significant stakeholder input and by the expected growth of scientific knowledge about PFAS.

MassDEP sees continued engagement with the petitioners and other stakeholders as essential during consideration of these processes and other agency actions. We will reach out to you and other stakeholders going forward to ensure that you remain informed of progress and aware of opportunities for engagement.

Thank you for your continued interest and work on efforts to address public health concerns regarding PFAS in drinking water.

Sincerely,

Martin Suuberg
Commissioner

Enc: The Massachusetts Department of Environmental Protection's Action on the Petition for Rulemaking to Establish a Treatment Technique Drinking Water Standard for Per- and Polyfluoroalkyl Substances (January 28, 2019)

The Massachusetts Department of Environmental Protection's
Action on the Conservation Law Foundation and Toxics Action Center Petition for Rulemaking to Establish a Treatment Technique Drinking Water Standard for Per- and Polyfluoroalkyl Substances
January 28, 2019

I. Introduction

On October 25, 2018, pursuant to M.G.L. c. 30A, § 4, the Conservation Law Foundation (CLF) and Toxics Action Center (TAC) filed with MassDEP a "Petition for Rulemaking to Establish a Treatment Technique Drinking Water Standard for Per- and Polyfluoroalkyl Substances" ("Petition").

MassDEP held a public meeting to consider the Petition at MassDEP's Boston Office at 10:00 a.m. on January 16, 2019. At the meeting, the petitioners presented an overview of their petition. MassDEP provided an overview of the Drinking Water Program's implementation of the federal Safe Drinking Water Act, including some background on Per- and Polyfluoroalkyl Substances (PFAS) and an update on actions taken by MassDEP as of that date. Members of the public were given opportunity to offer feedback on the petition. MassDEP also accepted written feedback on the petition through January 17, 2019.

The meeting was live-streamed and the video is available for viewing on YouTube. The presentations, written comments received, and the YouTube link are available at https://www.mass.gov/lists/pfas-information-a-petition-for-rulemaking-to-establish-a-treatment-technique-drinking-water. Seventy-one stakeholders attended the meeting in person, 21 of whom presented oral comments. Additionally, more than 80 individuals were able to live-stream the meeting from remote locations. Forty-five written comments were submitted for consideration. MassDEP greatly appreciates the participation of these stakeholders through their written and oral comments and attendance and viewing of the public meeting.

Within ten days after the meeting, MassDEP must determine whether to schedule the Petition for further proceedings in accordance with 310 CMR 2.05 or 2.06, and then notify the petitioners of MassDEP's action.

II. Applicable State Law for Filing and Responding to the Petition

Under M.G.L. c. 30A, § 4, "[a]ny interested person may petition an agency requesting the adoption, amendment or repeal of any regulation, and may accompany his petition with such data, views and arguments as he thinks pertinent. Each agency shall prescribe by regulation the procedures for the submission, consideration and disposition of such petitions."

Accordingly, MassDEP's Adopting Administrative Regulations, 310 CMR 2.00, detail what must be included in a petition and how MassDEP must respond. 310 CMR 2.02 states that:

> "Any interested person or his attorney may at any time petition the department to adopt, amend, or repeal any regulation. … All petitions shall be signed by the petitioner or his

> attorney, contain his address …, and set forth clearly and concisely the text of the proposed regulation. The petition may be accompanied by any supporting data, views or arguments."

310 CMR 2.03 states that:

> "Upon receipt of a petition for the adoption, amendment or repeal of a regulation submitted pursuant to 310 CMR 2.02 … the department shall consider the petition … at a meeting and shall, thereupon, determine whether to schedule the petition … for further proceedings in accordance with 310 CMR 2.05 or 310 CMR 2.06 [procedures for rulemaking with or without public hearing]. If the regulation has been presented to the department by petition …, the department shall within ten days after the meeting notify the petitioner of the department's action."

III. The Conservation Law Foundation and Toxics Action Center Petition

The petitioners requested that MassDEP: 1) adopt a treatment technique drinking water standard for the entire class of per- and polyfluoroalkyl substances (PFAS), 2) take the interim step of adopting the Vermont Department of Public Health's Advisory for five PFAS of 20 parts per trillion (ppt)[1], and apply it to the entire class of PFAS as a drinking water maximum contaminant level ("MCL"), and 3) at minimum, adopt individual MCLs for each PFAS chemical that poses a risk to public water systems in Massachusetts.

The petitioners provided background information on the PFAS class of compounds, describing them as "extremely persistent in the environment, highly mobile in water, bioaccumulative, toxic in very small quantities, and found in hundreds of products." They noted that the Department's Office of Research and Standards (ORS) issued guidelines in June 2018 of 70 ppt for five PFAS compounds (perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluoroheptanoic acid (PFHpA), perfluorononanoic acid (PFNA), and perfluorohexane sulfonic acid (PFHxS)) when occurring in drinking water. They stated that, although some of the long-chain PFASs are being phased-out, the long-chain PFAS are generally being replaced by short-chain PFASs.

The petitioners requested that MassDEP establish a treatment technique for the entire PFAS class of compounds because a "chemical-by-chemical, MCL approach … is not protective of the public health or the environment." They based their conclusion largely on the fact that there are at least 3,000 PFAS compounds in use currently, and regulating each one individually is not feasible. They noted that Massachusetts public water systems are not currently required to test for or treat PFAS because neither the federal nor state government requires it.

Next, the petitioners noted that EPA adopts a treatment technique in lieu of an MCL where it is "not economically or technologically feasible to ascertain the level of a contaminant," citing the

[1] On July 10, 2018, the Vermont Department of Health issued a Health Advisory of 20 ppt for the sum of any of the following five per or polyfluorinated alkyl substances (PFAS): perfluorooctanoic acid (PFOA); perfluoro-octane sulfonic acid (PFOS); perfluorohexane sulfonic acid (PFHxS); perfluoroheptanoic acid (PFHpA); and perfluorononanoic acid (PFNA).

Lead and Copper Rule and the Surface Water Treatment Rule as examples. Petitioners provided a high-level outline of two possible alternatives for regulations:

- One, require public water systems to install treatment technologies where
  - The sum of all measurable PFAS exceeds a conservative threshold level that is protective of public health and takes into account the cumulative impacts of all PFAS chemicals, or
  - The presence of PFAS compounds is detected using "non-targeted" laboratory analysis.
- Or two, require
  - A robust source water assessment for PFAS, and
  - Treatment where PFAS may be present in the source water.

The petitioners recommended a "'treatment train' of several technologies combining adsorption, separation, and destruction in sequence." They stated that such a treatment train would offer "significant cost-benefits for public health, because the same technologies that are effective in PFAS treatment are effective in removing a host of other dangerous chemicals."

In the alternative, the petitioners requested that MassDEP either adopt an MCL for the entire PFAS class or set a schedule to adopt MCLs for each PFAS chemical individually. The petitioners requested that, in the interim, MassDEP adopt Vermont's Health Advisory for five PFAS of 20 ppt, and do so for the entire PFAS class as an MCL.

In addition to the foregoing items included in the written petition, the petitioners recommended during their oral presentation at the January 16, 2019 meeting that MassDEP establish a standard of 1 ppt for any PFAS in drinking water, that treatment be installed when the PFAS level is greater than 1 ppt, that MassDEP establish a statewide sampling plan with a timeline of where and when sampling will be done, and that the public be kept informed of the remediation plans for PFAS contaminated sites and a timeline and strategy for getting them cleaned up.

IV. MassDEP's Primacy Responsibility for Public Water Systems in Massachusetts

Massachusetts' public water supplies are protected by a coordinated system of federal and state control. The federal Safe Drinking Water Act, 42 U.S.C. § 300f et seq. ("SDWA") was established to protect the quality of drinking water in the United States. It requires the EPA to establish national primary drinking water regulations applicable to public water supply systems. To regulate a contaminant under the act, the EPA must consider if: 1) it may have adverse human health effects, 2) it is known or likely to frequently occur in public water systems at levels of public health concern, and 3) regulating the contaminant would present a meaningful opportunity for health risk reductions (SDWA §1412(b)(1)(A)). Regulations typically take the form of quantitative MCLs. If it is not feasible to measure the contaminant at levels presumed to have impacts on health, a treatment technique can be specified in place of an MCL. Maximum contaminant levels presently exist for more than 75 contaminants. While the contaminant levels are only enforceable as standards for public drinking water supplies, they also are relied on as de facto environmental clean-up criteria under other federal and many state regulatory programs.

New drinking water regulations, and new contaminant levels, are developed by the EPA through a process that is designed to occur in waves. Each wave starts with the development of a "contaminant candidate list" (CCL) - a list of unregulated contaminants identified by the EPA as priorities for data gathering and regulatory decision making. By law, EPA must compile and publish a new candidate list every five years (§1412(B)(1)(b)(i)). In doing so, the agency must consult with the scientific community, including its own Science Advisory Board, and also must solicit and consider public comments.

When compiling a new CCL, the EPA must consider data on the occurrence of contaminants in public water systems (§1412(b)(1)(B)). To ensure that "occurrence data" are available, the EPA is required to publish a list, every five years, of up to 30 unregulated contaminants to be monitored in water supply systems (§1445(a)(1)(D)(2)). These lists are published under the Unregulated Contaminant Monitoring Rule (UCMR). The third monitoring rule (UCMR3, 2013–2015) and CCL4 both included six PFAS.[2] As a result of UCMR3 testing, one or more of these six PFAS were detected by five public water systems (PWSs) in Massachusetts at nine drinking water sources. (For information on PWS with PFAS detections, go to: https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas#pfas-detected-in-drinking-water-supplies-in-massachusetts-. As of today, a total of 15 PWSs have had detections of PFAS.)

In May 2018, EPA hosted a National Leadership Summit on PFAS at which it announced that EPA will initiate steps to evaluate the need for a MCL for PFOA and PFOS, which are the two of the most extensively produced and studied PFAS chemicals. EPA has stated that they are working methodically towards gathering information and data to make decisions on future regulatory actions which include analytical methods, occurrence data, treatment data and environmental fate data. EPA has not provided a target timeline for their actions.

The SDWA preserves a significant state role in the regulation of drinking water. EPA has delegated to MassDEP primary responsibility (also called "primacy") to implement the Public Water System Supervision (PWSS) program in Massachusetts. To maintain primacy, MassDEP's regulations for contaminants regulated under the National Primary Drinking Water Regulations (NPDWRs) must be no less stringent than the regulations promulgated by EPA. Primacy agencies may establish lower numerical limits for regulated contaminants or promulgate standards for unregulated contaminants using state law authority. MassDEP is not required to adhere to federal rulemaking procedures in promulgating state standards more stringent than the "floor" set by federal law.

MassDEP has state law authority to regulate PFAS. M.G.L. c. 111, § 160, confers on the Department broad authority to establish more stringent state standards. Section 160 states in relevant part:

> The department may cause examinations of such waters to be made to ascertain their purity and fitness for domestic use, or the possibility of their impairing the interests of the public or of persons lawfully using them or of imperilling *(sic)* the public health. It may

[2] The six PFAS were required to be tested by laboratories using EPA Method 537. EPA shared a list of laboratories that were able to complete this testing for PWSs participating in UCMR3.

> make rules and regulations and issue such orders as in its opinion may be necessary to prevent the pollution and to secure the sanitary protection of all such waters used as sources of water supply and to ensure the delivery of a fit and pure water supply to all consumers.

The statutory purpose of M.G.L. c. 111, § 160, expressed through its text, makes it clear that MassDEP has the discretion to create regulations that will best ensure the delivery of a fit and pure water supply to all consumers.

V. PFAS Background

PFAS have been produced for over 60 years. Numerous PFAS are in the environment, including commercial products and byproducts and wastes released from production facilities. PFOA and PFOS are the most widely produced perfluorocarbons and are studied worldwide. They both contain eight carbon atoms, mostly in a linear chain. The per- prefix in the names means that all of the available hydrogen atoms that were attached to carbon atoms have been replaced by fluorine atoms. That causes them to be biologically stable chemicals and to be very lipophobic (repel fats) and hydrophobic (repel water), and it also increases their acidities. They also have low volatility. As surface-active agents, they are used in many industrial and commercial products, such as water and soil repellant coatings on carpets, fabrics and leather, foams used in firefighting, electroplating, photography, paper coatings, and pesticides. Some PFOA and PFOS compounds can form by degradation from higher molecular weight perfluorocarbons.

EPA issued a draft risk assessment of the potential human health effects associated with exposure to Perfluorooctanoic Acids and its Salts in 2005. In 2006, major manufacturers agreed to phase out the production of PFOA and PFOS. In 2009, EPA established provisional drinking water health advisories (HAs) of 400 ppt for PFOA and 200 ppt for PFOS. PFOA was covered in an EPA stewardship program that specified that by 2010, eight companies agreed to reduce global emissions from facilities, reduce precursor chemicals that breakdown to PFOA, reduce product content by 95 percent, and work toward eliminating them from emissions and products by 2015. In May 2016, EPA revised the HAs for PFOA and PFOS downward to 70 ppt for the sum of PFOA and PFOS. The lifetime health advisory is to be applied to PFOA and PFOS individually, or in combination, if both chemicals are present above the reporting limit. This change significantly increased the number of water systems with levels of concern.

Most states have opted to implement the 2016 EPA Health Advisory of 70 ppt for PFOS and PFOA. However, many states, in particular in the northeast, have proposed or established their own guidance or regulatory values for PFOA, PFOS and/or other PFAS in groundwater and/or drinking water.

- New Jersey has adopted a MCL of 13 ppt for PFNA and is considering individual MCLs of 13 and 14 ppt for PFOS and PFOA, respectively.
- The New York State Drinking Water Quality Council recently proposed individual MCLs of 10 ppt for PFOA and PFOS. Connecticut has adopted a drinking water guidance value of 70 ppt applicable to the sum of PFOA, PFOS, PFNA, PFHxS and PFHpA.

- Vermont has adopted a Groundwater Quality Enforcement Standard of 20 ppt for the sum of PFOA, PFOS, PFNA, PFHxS and PFHpA.
- On December 31, 2018, the New Hampshire Department of Environmental Services (NHDES) initiated rulemaking to establish MCLs and Ambient Groundwater Quality Standards for four PFAS. The values in the NHDES proposal are 38 ppt for PFOA; 70 ppt for PFOS; 70 ppt for PFOA and PFOS combined; 23 ppt for PFNA; and 85 ppt for PFHxS.
- Minnesota has established drinking water values of 27 ppt for PFOS, 35 ppt for PFOA and 2000 ppt for PFBS.
- North Carolina has adopted a Health Advisory of 140 ppt for GenX (another type of PFAS chemical).

VI. MassDEP's Activities to Date

Office of Research and Standards Guideline

In June 2018, due to health concerns, MassDEP established an Office of Research and Standards Guideline (ORSG) level for drinking water that extended the EPA advisory to include PFOS, PFOA, PFNA, PFHxS, and PFHpA. The ORSG level is 70 ppt, and applies to the total summed level of all five compounds. Based on this ORSG, MassDEP recommends the following:

1. Consumers in sensitive subgroups (pregnant women, nursing mothers and infants) not consume water when the level of the five PFAS substances, individually or in combination, is above 70 ppt.
2. Public water suppliers take steps expeditiously to lower levels of the five PFAS, individually or in combination, to below 70 ppt for all consumers.

To assess whether potential revisions to the ORSG may be warranted, ORS is currently reviewing additional information, studies and assessments on PFAS. Some of these include the ATSDR Toxicological Profile for Perfluoroalkyls; the December 2018 European Food Safety Authority publication on risks attributable to PFOS and PFOA in food; various assessments by state agencies including NY, NJ, NH and MN; and numerous research articles in the primary literature.

Drinking Water Program

MassDEP's Drinking Water Program has undertaken the following activities to address PFAS in drinking water:

- MassDEP requires proposed new public water supply sources to be tested for the six UCMR3 PFAS chemicals before they are placed on-line.
- MassDEP has posted statewide PWS testing data for PFAS on the web.
    - UCMR3 data is posted as a spreadsheet at: https://www.mass.gov/lists/contaminants-in-drinking-water#unregulated-contaminants-

    - More recent testing done by PWSs is available through the Energy & Environmental Affairs Data Portal at: http://eeaonline.eea.state.ma.us/portal#!/search/drinking-water
- MassDEP is collaborating with the Massachusetts Department of Public Health to coordinate PFAS education for local Boards of Health that oversee private drinking water wells.
- MassDEP has established "High Priority" status for treatment projects seeking Drinking Water State Revolving Fund financing to address PFAS in source water at levels above the ORSG.

Bottled Water Testing

On July 27, 2018, MassDEP surveyed all Massachusetts permitted bottled water companies to determine whether they proactively sampled their water sources for PFAS by the EPA laboratory Method 537[3] at a laboratory listed by EPA or approved by MassDEP with a minimum reporting level (MRL) of 5 ppt or lower. If a water bottler tested its sources for PFAS, MassDEP requested that they voluntarily share the results of such testing with MassDEP for posting to the Commonwealth's website. As of today, three bottled water companies responded that they have tested for PFAS and voluntarily reported their laboratory results to MassDEP. PFAS was not detected in their water. MassDEP will continue to encourage bottled water companies to provide PFAS testing results to the agency. A list of bottled water companies that tested their water for PFAS and links to their lab reports are posted at: https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas#bottled-water-tested-for-pfas-.

Waste Site Cleanup Program

MassDEP's Bureau of Waste Site Cleanup (BWSC) program regulates the notification, assessment and remediation of releases of oil and/or hazardous materials to the environment. PFAS are considered to be "hazardous material" subject to the requirements of the Massachusetts Contingency Plan ("MCP", 310 CMR 40.0000). In June 2018, BWSC issued *Interim Guidance on Sampling and Analysis for PFAS at Disposal Sites Regulated under the Massachusetts Contingency Plan*. This document includes guidance regarding when and how to sample and analyze for Per- and Polyfluoroalkyl Substances at disposal sites regulated under the MCP. While BWSC recommends that investigators look for the 14 analytes specified in EPA Method 537 Rev. 1.1 to understand the presence and distribution of PFAS at disposal sites, the guidance acknowledges that sufficient toxicity information is available for five PFAS (PFOA, PFOS, PFHxS, PFHpA and PFNA) to include in a quantitative risk characterization. This document is posted at: https://www.mass.gov/files/documents/2018/06/19/2018-06-19%20-%20MassDEP%20BWSC%20PFAS%20Sampling%20Guidance.pdf.

Firefighting Foam Take-back Program

MassDEP has collaborated with the Massachusetts Department of Fire Services (DFS) to dispose of any foam manufactured prior to 2003 which contain perfluorinated compounds.

[3] EPA Method 537 (and its recent revision 537.1) is the only standard methodology available for testing PFAS in drinking water. This method was specified for use by all PWSs participating in UCMR3 testing.

Manufacturers stopped making the suspect foams in 2002, and they now make "more fluorine-stable and fluorine-free" firefighting foams with less potential impact. To prevent future PFAS releases to the environment from the use of the pre-2003 firefighting foams, MassDEP and DFS implemented a collection and destruction program with local fire departments and other government installations. Utilizing MassDEP funds, approximately 125,000 pounds of pre-2003 Aqueous Film Forming Foam (AFFF) stockpiles have been recovered from approximately 60 participating local departments and destroyed.

PFAS in Wastewater Residuals

MassDEP regulates the land application of sludge and septage for beneficial purposes under 310 CMR 32.00. This includes:

- residuals produced from sanitary wastewater sludge (including biosolids made from organic materials added to wastewater and treated by anaerobic digesters),
- drinking water treatment facility sludge, and
- short paper fiber.

All residuals products sold, distributed, and applied in Massachusetts are subject to an Approval of Suitability (AOS), which classifies biosolids for different uses based on the chemical quality and treatment methods used to reduce pathogens. Each approval must be renewed every five years. Under 310 CMR 32.13(5)(c), MassDEP may require sampling and analysis for additional substances before or after issuing the approval. Such a requirement may be either:

1. at the request of the local board of health where the product is proposed for use, or
2. at MassDEP's request upon review of information submitted in compliance with 310 CMR 32.13(1) or any other information.

Based on review of data for residuals collected by other states, MassDEP is seeking data on the levels of PFAS in these products. Therefore, MassDEP intends to include a requirement for PFAS testing in all new or renewed AOSs as of January 2019.

V. MassDEP's Response to the Petition

Having considered the petition, the public comments submitted orally and in writing, and the latest scientific information available, MassDEP intends to initiate the following regulatory processes, pursuant to all applicable statutes, rules and executive orders, in order to address the potential risks posed by PFAS in drinking water.

A. MassDEP Will Initiate the Process, Pursuant to All Applicable Statutes, Rules and Executive Orders, for development of a PFAS MCL

MassDEP will initiate the process, pursuant to all applicable statutes, rules and executive orders, for development of an MCL for those PFAS where a threat to human health has been identified, analytical methods exist for their detection, and appropriate treatment technologies are available. Currently, MassDEP understands those PFAS to include PFOA, PFOS, PFHxS, PFHpA and

PFNA. MassDEP's consideration will be informed by the latest available scientific data. MassDEP will also convene the Safe Drinking Water Act Advisory Committee (SDWAAC) to provide input into this process. SDWAAC is a group of stakeholders that MassDEP consults with on SDWA matters. The group consists of representatives of sister agencies (Mass Dept of Public Health, US EPA), public water suppliers, and public health advocacy groups. The agency will also solicit the advice of MassDEP's Health Effects Advisory Committee. MassDEP's Health Effects Advisory Committee is an external group of toxicology and public health experts from the region. Finally, MassDEP will invite public comment on whether there are any other PFAS for which a threat to human health has been identified, analytical methods exist for their detection and appropriate treatment technologies are available.

The petitioners seek to have MassDEP propose regulations establishing a treatment technique for the entire PFAS class, estimated at more than 3,000 compounds. If PFAS is detected above the established future state standard, water supply systems may be required to treat or, in some cases, replace their water supplies. The costs of treating PFAS at the wellhead, or of obtaining alternate sources of clean drinking water, are significant. These costs are especially significant for the small public water systems (68% of the Community Public Water Systems in Massachusetts serve less than 10,000 people and provide drinking water to 10% of the state's population). For instance, Barnstable installed Granular Activated Carbon (GAC) to remove PFAS. Based on data available to the Department, GAC is the least expensive of the PFAS adsorption treatment technologies. Barnstable has reported a capital cost for installing GAC at $6.5 million, plus it reports annual operation and maintenance costs of greater than $200,000 per year.

From a human health perspective, little is known about the vast majority of the 3,000+ compounds of the PFAS class of chemicals. Information on best available treatment technologies to remove PFAS from drinking water is also limited. Rather than propose a PFAS treatment technique for the entire class of PFAS at this time, MassDEP will invite public comment on whether it should take this approach and how such an approach could be implemented. MassDEP will also engage SDWAAC for input.

B. MassDEP Will Initiate the Process, Pursuant to All Applicable Statutes, Rules and Executive Orders, for development of PFAS Waste Site Cleanup Standards

MassDEP's BWSC will initiate the process, pursuant to all applicable statutes, rules and executive orders, for development of reportable concentrations and cleanup standards for PFAS as revisions to the Massachusetts Contingency Plan. BWSC will seek advice from the Waste Site Cleanup Advisory Committee in developing any regulatory approach, including the specific compounds to regulate, toxicity values and exposure assumptions, and it will solicit public comment.

C. Consideration of Vermont's Drinking Water Health Advisory for PFAS

MassDEP is in the process of reviewing our existing PFAS Office of Research and Standards Guideline (ORSG) of 70 ppt. The Vermont PFAS Health Advisory Emergency Rules, as well as guidelines and standards issued by other states, are being evaluated as part of this process.

D. Additional Drinking Water Program Actions on PFAS

MCLs typically include broad sampling requirements. In the meantime, MassDEP will develop a targeted sampling program to test those PWSs that were not captured under UCMR3. This sampling program will initially target those PWSs with sources near known or potential sources of PFAS contamination. MassDEP will consider other state sampling approaches in developing this program. MassDEP will engage SDWAAC to provide advice in implementing this targeted sampling program, and MassDEP will keep the public informed on future sampling, including by posting information on the Commonwealth's website.

In addition, MassDEP will ask each PWS in Massachusetts that conducted UCMR3 testing to contact the testing laboratory to determine if the PFAS results provided can be made available with a lower detection limit. MassDEP is aware that some laboratories that analyzed UCMR3 samples used lower detection limits than those established as Minimum Reporting Levels by EPA. Therefore, it may be possible to restate these results. If the testing laboratory does not have or is unable to make data available with a lower detection limit, MassDEP will invite the PWS to resample.

E. Additional Program Actions on PFAS

MassDEP will also evaluate the need to take further action to address PFAS in other environmental media, in similar fashion to MassDEP's recent action to require sampling for certain PFAS in wastewater residuals.

F. Laboratory Certification

As we learn more about PFAS compounds, MassDEP continues to work at developing analytical capabilities to detect, at lower detection levels, the presence of PFAS compounds in various media. The Wall Experiment Station (WES) Division of Environmental Laboratory Services (DELS) has developed capacity to evaluate PFAS analytical data generated by other laboratories and the capacity to analyze drinking water samples using EPA Method 537 and 537.1. WES is also developing regulations to establish a category of drinking water laboratory certification for PFAS analysis using EPA Method 537 and 537.1. Those proposed changes to 310 CMR 42.00: *Certification and Operation of Environmental Analysis Laboratories* will allow certification of laboratories for PFAS analysis and ensure data quality.

VI. Conclusion

The legislature gave the Department discretion to "make rules and regulations … as in its opinion may be necessary to prevent the pollution and to secure the sanitary protection of all such waters used as sources of water supply and to ensure the delivery of a fit and pure water supply to all consumers." Accordingly, MassDEP will initiate the process, pursuant to all applicable statutes, rules and executive orders, for development of a drinking water Maximum Contaminant Level (MCL) for a group of per- and polyfluororoalkyl substances (PFAS) that the Department has identified as posing a significant threat to human health and for which analytical methods exist for their detection and appropriate treatment technologies are available. The Department's approach will continue to be informed by the soon to be initiated process regarding

groundwater cleanup standards under the MCP. The MCL will also be informed by significant stakeholder input and by the continuing growth of scientific knowledge about PFAS. MassDEP is looking forward to continued engagement with the petitioners during consideration of these processes and other agency actions.