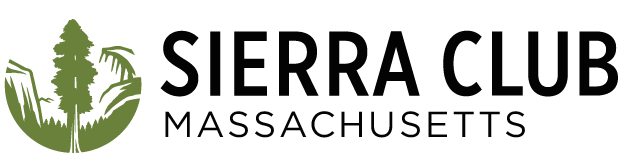
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Elizabeth Callahan

Acting Division Director

Policy and Program Development

MassDEP Bureau of Waste Site Cleanup

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Dear Acting Division Director Callahan:

The following comments on the MCP PFAS Regulations are being submitted by the Executive Committee of the Cape Cod Group-Sierra Club.

On Cape Cod we experience PFAS contamination of drinking water in public and/or private drinking water wells in the towns of Barnstable, Falmouth, and Mashpee all of which were initiated under EPA’s hazard warning / Health Advisory level of 70 ppt (parts per trillion) for PFOS and PFOA. The proposed MCP regulations could increase the number of contaminated source sites/drinking water. While we appreciate the fact that Cape Cod has taken some action to address PFAS contaminated drinking water (unlike some other parts of the Commonwealth), more needs to be done.

EPA has submitted a proposal to convert its hazard warning level to a maximum contaminant level (MCL) under the Safe Drinking Water Act (SDWA) and to consider adding PFASs as hazardous chemicals under RCRA and/or CERCLA. There are also 13 pieces of PFAS legislation that have been introduced by members of the House Energy and Commerce Committee. The subcommittee on Environment & Climate Change plans to hold hearings on this proposed legislation. PFAS legislation is under considerationin the Massachusetts Legislature (HD.3750 and SD.2429). Finally, MA DEP held a petition hearing (brought by the Toxics Action Center and Conservation Law Foundation) on regulating PFAS chemicals as a class with an MCL of 1 ppt. Thus, talk about addressing PFAS contamination of drinking water is gaining some traction. However, we hope the MCP PFAS proposal will not be delayed by the proposed PFAS Task Force legislation (SD.2429) or other considerations.

The Massachusetts Contingency Plan (MCP) proposal to develop an MCL for 6 PFAS chemicals at 20 ppt is a big improvement over EPA’s draft Recommendations for Addressing Groundwater Contaminated by PFOS and PFOA. Past history with development of an MCL for perchlorate suggests that the MCP MCL for 6 PFAS chemicals will come into effect before EPA’s MCL and govern the cleanup at the Barnstable County Fire Training and Rescue Academy and Ashumet Valley Plume (AVP) emanating from Joint Base Cape Cod (JBCC). Since both of these source areas involved fire training activities with AFFF fire fighting foams (which have also been used on military runways), we oppose MA DEP’s practice of incinerating unused fire fighting foams. This simply converts some of the foam PFAS into airborne chemical contamination in other regions. The waste site cleanup standards need to address PFAS contamination of soils and sediments and alternative technologies to granular activated carbon (GAC) to remove PFAS chemicals as a class from contaminated drinking water. Alternatives to GAC may include reverse osmosis, ion exchange resins, Cyclopure absorbents, etc.

The 6 PFAS chemicals chosen by MA DEP for developing its MCL have some background health data for effects on humans or laboratory studies and presumably include remediation technologies for drinking water and source areas.

Since the science in this area is rapidly developing and pilot tests of technologies are ongoing, this MCP may need to be revisited at some point. The Sierra Club assumes that all 5000 PFAS chemicals are potentially toxic and hazardous chemicals and should be treated as such until evidence shows this not to be true. The lower molecular weight PFAS chemicals are not removed by GAC treatment. The PFAS chemical complex fate and effects in the environment which will affect waste site cleanup standards and the extent of exposure/effects from consuming contaminated drinking water are being explored in scientific studies on Cape Cod. The Sierra Club’s PFAS Working Group is developing a draft position on PFAS chemicals which will consider these options in more detail.

The CC Group-Sierra Club has been involved in the SDWA/CERCLA (Superfund) cleanup at JBCC, since the late 1980s. We were quite concerned to learn that the AVP contained PFOA and PFOS which contaminated 22 private drinking water wells in Falmouth and the Mashpee Village Public Drinking Water Well. The Air Force Civil Engineer Center (AFCEC) and Installation Restoration Program (IRP) have used GAC treatment to reduce PFOS and PFOA levels to 70 ppt. The source areas for the PFAS pollution appear to include: Fire Training areas, as well as former wastewater treatment plant and water/sediments in Ashumet and Johns Ponds. Since the Department of Defense policy appears to require PFAS chemicals to be listed as hazardous under RCRA and/or CERCLA before pursuing off-base treatment for PFAS chemicals in drinking water, it is unclear whether the MCP MCL will be applicable for the off-base plumes (like the Ashumet Valley Plume).

This would greatly increase the costs of the cleanup for contaminated drinking water in Falmouth and Mashpee when the state MCL is 20 ppt. The CC Group feels that both JBCC and the AFFF foam production companies should share in these cleanup costs. Cleaning up the water and contaminated sediments in the freshwater kettle hole ponds could pose a technological challenge. JBCC IRP has made good progress in cleaning the traditional contaminants of concern (COCs) in the AVP. Studies are underway for other PFAS source areas at JBCC, so that more contamination plumes may be identified off base. JBCC also has military families and contractors that work on the base that need to be protected.

The challenges in Hyannis from the pollution of public drinking water from the Barnstable County Fire Training and Rescue Academy (BCFRTA) pose a different set of PFAS drinking water cleanup and waste site source area treatment options. The BCFRTA has been used for public safety training since the 1950s and continues to be used by numerous fire departments throughout Barnstable County, departments outside the County, and other public and private institutions and utilities. After a 2013 sampling of 3 public water supply wells downgradient of the training site revealed PFOS contamination, subsequent testing of soils and groundwater confirmed BCFRTA groundwater was impacted by PFOS. Following minimal soil removal, a pump and treat system, hydrogeological assessments, there is still no delineation of the plume and the fire training is ongoing, albeit not with AFFF. Since the soils are already saturated with a variety of perfluorinated compounds, even rainwater drives multiple PFAS contaminants to the well heads. (PFASs rarely occur on contaminated sites as a single compound, which is another consideration for regulating them as a class.) Fire training at the BCFRTA uses an average of over ½ million gallons per year (in some quarters as high as 378,000 gallons) which complicates tracking of plumes and municipal water treatment. There are high levels of PFAS in Flint Rock Pond nearby the BFCRTA and the sediments are thought to contribute to ongoing groundwater contamination upgradient of the municipal wells. Excavation of impacted soils/pond sediments and implementation of more groundwater recovery and treatment systems are prohibitively expensive for Barnstable County-the Potentially Responsible Party. Hyannis Water System has utilized GAC treatment to reduce the proposed 6 PFAS contaminant levels to 20 ppt. with concerted effort. Municipal wells have been taken offline, treatment systems installed and water purchased from other towns, new well areas are being contemplated-all at great expense to a water system that serves a designated Environmental Justice Community. Again, Sierra Club believes every effort should be made to recover these costs from the AFFF manufacturers.

The Sierra Club’s national Toxics Team is working on a national position on PFAS chemicals, which will hopefully be available in the Fall. Components of this draft policy include: treating PFAS chemicals as a class, finding safe ways to dispose of AFFF fire fighting foams, supporting state MCLs for drinking water that are below the proposed EPA levels of 70 ppt for PFOS and PFOA, developing Waste Site cleanup regulations to support lower mcls and ensuring that PFAS chemicals are listed as hazardous chemicals under CERCLA and RCRA (to support polluter pays provisions for cleanups). The Sierra Club has a policy of “speaking with one voice” which means that grassroot entities (Chapters and Groups) have to take positions consistent with national policies. Thus future submissions from the Cape Cod Group Excom on the Ma. DEP MCP for PFAS may reflect this national policy when it is approved by the Board of Directors.

Thanks for considering these comments from the Cape Cod Group-Sierra Club.

Matthew Cannon

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