Contaminants of Emerging Concern
Frequently Asked Questions

What are Contaminants of Emerging Concern (CECs)?

Contaminants of Emerging Concern (CECs) are chemicals that are being discovered in water that previously had not been detected or are being detected at levels that may be different than expected. While there are no regulatory limits, there may be a long-term potential risk to human health or the environment associated with them. Additional studies may also bring new or changing health exposure information related to them. This is why DEP and the Florida Department of Health (DOH) are committed to addressing them.

What CECs have been tested for in Florida's public water systems?

The U.S. Environmental Protection Agency (EPA) prioritizes CECs for research and data collection. As part of this data collection, all large and selected smaller public water systems across the U.S. are required to monitor for the targeted CECs.

The most recent round of sampling was performed between 2013 and 2015. Additional information on these efforts can be found here.

What did these tests find?

During EPA's most recent round of emerging contaminant evaluation in Florida drinking water systems between 2013 and 2015, systems statewide sampled for approximately 30 CECs.

The vast majority of these systems either did not have any detection of the 30 CECs, or had results that were below existing Health Advisory Levels (HALs). Only four of these 30 CECs, 1,4-Dioxane, PFOA (perfluorooctanoic acid), PFOS (perfluorooctanesulfonic acid) and Molybdenum were detected at levels above established HALs, requiring further evaluation of the presence of CECs in these systems and/or corrective actions.

Is my water safe?

Yes. The drinking water supply at all of these facilities meets federal safe drinking water standards. Residents and visitors are safe to continue their daily routines, and do not need to use an alternate source of water.

While there are instances where sample results do indicate the presence of the CECs at levels which are currently above established HALs, DOH has determined that these levels present no immediate health risk.

Residents with health-related questions or concerns should contact their local health department or their physician.

What is being done at water systems where elevated levels of CECs have been detected?

DEP requires that all public water systems meet all federal drinking water standards. In addition, DEP has also been working with public water systems to ensure that steps are taken to provide drinking water that is below the established HALs to provide additional protection. Such steps include on-going investigations and monitoring to identify potential sources, modifying system operations or drinking water sources, and implementing treatment options wherever needed.

As a result of coordinated efforts between the department and the utilities to date, most of the impacted facilities have already returned to levels below the HALs, and all of these facilities meet federal drinking water standards.

What is being done to address levels of the CECs at the facilities where the CECs have not yet returned to levels below the HAL?

DEP will continue to provide technical assistance to these facilities as needed, as well as potential funding assistance, to help these facilities modify their system operations, identify alternative drinking water sources or implement treatment options wherever necessary.

DEP is also working to identify any potential sources of these CECs through targeted groundwater sampling, as well as a review of potential sources (based on historic and current land use and activities) and feedback from our local government partners.

Why are these contaminants being detected now when they were not before?

There are several reasons, including:

- improved technology that allows for the detection of substances at lower levels;
- testing for additional substances;
- new substances are being used; and
- old substances are being used in new ways.

What is 1,4-Dioxane?

1,4-Dioxane (Dioxane) is a synthetic industrial chemical that is used in many products such as paint strippers, dyes, greases, varnishes and waxes. It is even found in some consumer products such as deodorants, shampoos and cosmetics. 1,4-Dioxane is also commonly used at industrial facilities as a stabilizer for chlorinated solvents.

The EPA fact sheet on 1,4-Dioxane is available here.

The Florida Department of Health fact sheet on 1,4-Dioxane is available here.

What are PFOA (perfluorooctanoic acid) and PFOS (perfluorooctanesulfonic acid)?

PFOA and PFOS synthetic industrial chemicals have been used in a variety of commercial products since the 1950s, including stain and water repellents used in textile manufacturing and fire suppression foams. Producers of PFOA and PFOS in the United States started phasing out production of these compounds in the early 2000s.

The EPA fact sheet on PFOA and PFOS can be found here.

The Florida Department of Health fact sheet on PFOA and PFOS can be found here.

What is Molybdenum?

Molybdenum is a naturally occurring metal found in small amounts in soil and rock. It can also found in groundwater either naturally occurring or as a result of industrial activities.

What is a Health Advisory Level (HAL)?

Once EPA's study and evaluation of a prioritized CEC is complete, EPA or the Florida Department of Health can develop Health Advisory Levels (HAL) for detected CECs.

Health Advisory Levels (HALs) are based on the best available peer-reviewed science, including lab and epidemiological studies regarding exposure to certain chemicals and compounds.

While HALs do not establish a regulatory limit or "maximum contaminant level" for drinking water, they do provide guidance to state and local officials in evaluating drinking water quality based on levels below which adverse health effects are not anticipated to occur over a lifetime of exposure.

How are HALs calculated?

Health Advisory Levels for drinking water are based on a lifetime of exposure. The lifetime exposure level assumes that if a person drinks 2 liters (about a half-gallon) per day of water exceeding the HAL for 70 years, then that person's chances of serious illness would increase by just one in a million. HALs are calculated to protect even the most sensitive populations.

How do I get more specific information about the water quality being provided by my public water system?

All public drinking water systems are required to produce a Consumer Confidence Report (CCR) every year. A CCR is an annual water quality report delivered by community water systems to their customers. The CCR includes information on source water, the levels of detected contaminants and compliance with drinking water rules. These reports are usually available online.

All of the water systems that had levels of any of the four CECs that were above the health advisory levels notified their customers of these results through CCRs.

Residents with questions about the most recent CCR or water quality data, including sampling performed for CECs, should contact their utility.

What if I have a private drinking water well?

While DEP does not regulate or routinely sample private drinking water wells, DOH publishes guidance for all private well owners and encourages them to regularly have their wells tested.

As part of DEP's efforts to ensure the safety of all residents, we are partnering with the DOH to sample targeted private drinking water wells for these four CECs. Based on the data collected from public water system sampling and ongoing efforts to identify potential sources, approximately 100 wells have been targeted for the initial phase of sampling. This sampling began in the fall of 2016 and is ongoing. Results of this sampling will be used by DEP and DOH to determine if any further testing is needed.