

Highly fluorinated chemicals in Cape Cod drinking water



What are highly fluorinated chemicals (PFASs)?

PFASs are water-, heat-, and oil-resistant chemicals found in a wide range of consumer products such as stain-resistant carpets and upholstery, waterproof apparel, floor waxes, non-stick cookware, grease-proof food packaging, and even dental floss. They are also added to certain firefighting foams that are commonly used at military bases, airports, and fire training areas. There are approximately 4,700 PFASs on the global market. The Environmental Working Group estimates that 110 million Americans have PFASs in their drinking water.

TIMELINE

U.S. Environmental Protection Agency (EPA)

2009: EPA issues Provisional Health Advisory of 400 parts per trillion (ppt) for PFOA and 200 ppt for PFOS.

2016: EPA issues Lifetime Health Advisory of 70 ppt for PFOA and PFOS combined.

Massachusetts Department of Environmental Protection (MassDEP)

2018: MassDEP issues drinking water guideline of 70 ppt for sum of 5 PFAS chemicals (PFOA, PFOS, PFNA, PFHpA, and PFHxS)

Hyannis Water System

2010: Silent Spring Institute found PFOS in a Hyannis public well at one-half EPA's 2009 health advisory

2013-15: PFOS levels in several Hyannis public wells were found to exceed EPA's 2009 health advisory as part of national PFAS testing required by EPA for six PFAS chemicals

2015: Hyannis Water System begins activated carbon treatment

2016 (May): Do-not-drink advisory issued after EPA issues stricter guideline of 70 ppt for PFOS and PFOA

2016 (July): End of do-not-drink advisory, installation of new treatment and purchasing agreements

Upper Cape

2013-15: PFHxS detected in one Mashpee public well as part of national testing required by EPA

2017: Mashpee public well taken offline after PFOS level found to exceed EPA guideline

2017: 22 private wells close to Joint Base found to exceed EPA advisory, Air Force provides treatment

2017: Well serving mobile home park found to exceed EPA advisory, residents connected to town water by Air Force

Are PFASs regulated in drinking water?

There are no federal standards regulating PFASs in drinking water. The U.S. EPA has issued non-enforceable guidelines for two PFAS chemicals, PFOS and PFOA. The Massachusetts Department of Environmental Protection issued a guideline for the total amount of five PFAS chemicals in public water supplies.



Media coverage

The Boston Globe

GLOBE MAGAZINE

Cape Cod's big drinking water problem

When you live on what's essentially a sandbar, pollution, septic systems, and political roadblocks add up to one tough challenge.



CAPE COD TIMES

Mashpee well taken offline

By Chris Lindahl

Posted Mar 17, 2017 at 7:32 PM

Updated Mar 17, 2017 at 7:32 PM

MASHPEE — One of seven wells used for the town's public drinking water supply will remain shut down indefinitely after it recently tested positive for potentially cancer-causing chemicals, likely caused by past activity at Joint Base Cape Cod.

The Mashpee Water District's wells were voluntarily tested by officials from the Air Force Civil Engineer Center last week, as part of ongoing chemical remediation efforts at and

Upper Cape base. One well, near Mashpee Village, tested high for chemicals known as PFOS and PFOA — 0.072 parts per billion, just a hair below the federal advisory level of 0.07 ppb. The other wells did not have high readings



CAPE COD TIMES

z* Breaking News Updates

Hyannis residents warned about water quality

By Haven Orecchio-Egresitz

Posted May 24, 2016 at 3:05 PM

Updated May 24, 2016 at 3:15 PM

HYANNIS — Barnstable officials are recommending that pregnant women, nursing mothers and infants in Hyannis not drink or cook with well water until further notice after a federal agency changed thresholds for two contaminants in the drinking water.

On Thursday, the U.S. Environmental Protection Agency changed its advisory level for perfluorinated compounds, known as PFOS and PFOAs, from 0.2 micrograms per liter and 0.4 micrograms per liter to 0.07 micrograms per liter for both.

The change put a well at the Mary Dunn well field above the new contaminant limit,



CAPE COD TIMES

Air Force reacts to contaminated Falmouth water wells

By Staff Reporter

Posted May 20, 2016 at 6:20 PM

Updated May 21, 2016 at 8:10 AM

FALMOUTH — Four houses in the Currier Road neighborhood are receiving bottled water after a federal agency changed its advisory level for two emerging contaminants in drinking water.

On Thursday, the U.S. Environmental Protection Agency changed its advisory level for perfluorinated compounds, known as PFOS and PFOAs, from 0.2 micrograms per liter and 0.4 micrograms per liter to 0.07 micrograms per liter for both — a level that now puts the four properties in question at levels above those recommended.