

Norwell Water PFAS6

Initial Tier 4 Water Restrictions were put in place in May as require by the MADEP Due to Severe Drought as of August 3, 2021, there is no Drought.

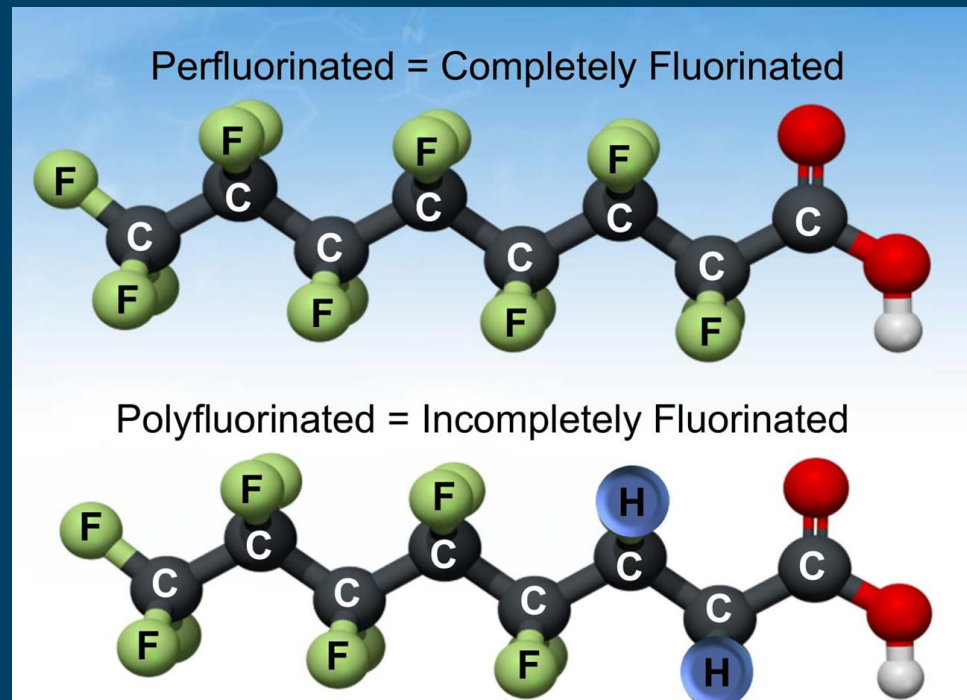
Water Restrictions remain at Tier 3 in Order to Manage Water Quantity due to Impacts from PFAS contamination at several of the Towns Drinking Water Sources.

Initial Testing of all Town Sources in the Winter and Spring indicated 2 Sources (Well #1 and Well #7) exceeded the new MADEP standard of 20 parts per trillion (ppt)

Well #7 was taken off-line and Well #1 our largest source was taken off - line to stay under the standard.

**PFAS sampling is now conducted monthly and
PFAS removal treatment design is underway.**

Per- and poly-fluoroalkyl substances (PFAS) are a class of approximately 3000 synthetic fluorinated chemicals that have been used world-wide since the 1940's due to their unique properties chemically inert, heat resistant, weather resistant, and ability to repel oil, grease, and water (hydrophobic).



Where is PFAS found?

PFAS is present in numerous everyday products



- Teflon (e.g., Dupont non-stick cookware)
- Tyvek, Gore-Tex
- Scotch Guard and other stain/water proofing products (3M products)
- Carpet/Fabric protector (e.g., stain guard on vehicle upholstery)
- Blue ice
- Ski wax
- Food wrappers (e.g., fast food containers, pizza boxes)
- Post-it Notes and specialty papers
- Shampoos/sunscreens/moisturizers/insect repellents
- Firefighting Foam and Class B Fire Extinguishers

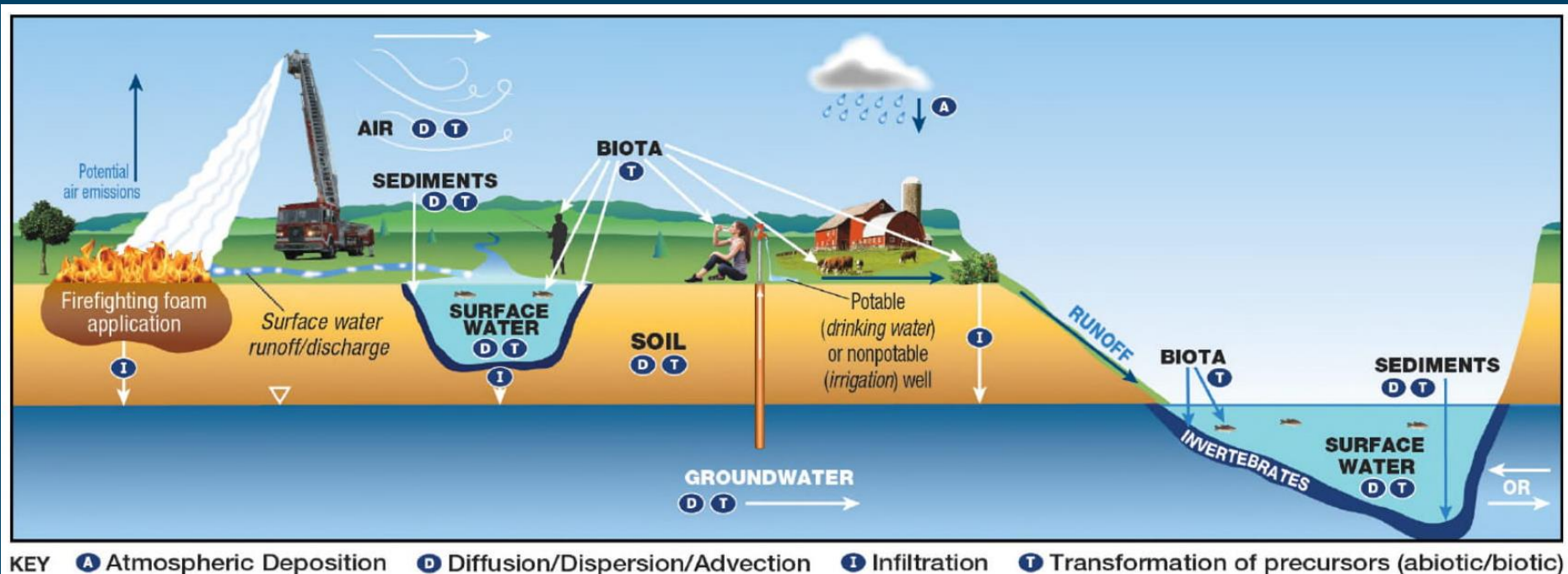
PRESENTATION FROM 2021

Summary: PFAS is everywhere !!



PFAS move easily through the environment in air and water

Septic systems can also be a source of PFAS in the environment

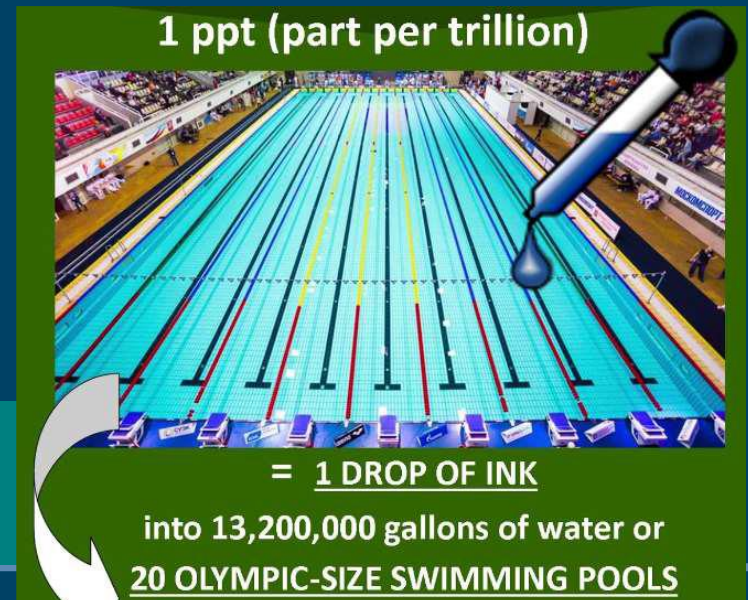


New Standard of 20 parts per trillion (ppt)

- Laboratory Methods to detect ppt only recently developed
- New MADEP standard for six of the most common PFAS compounds (PFAS6)
- 1 ppt is 1 drop in 20 Olympic size pools
- 20 ppt is 1 drop in 1 Olympic size pool
- EPA is currently advising a standard of 70 ppt for the 2 most common PFAS compounds PFOS/PFOA (not yet established).

PRESENTATION FROM 2021

Norwell Well #1 raw water is 27 ppt



What is Norwell Water Doing

- Shutting down sources to stay under Standard at South St and Washington St. (Grove is under)
 - Water Restrictions to control Quantity
 - Public Notice will be Issued if Standard Exceeded
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GRANULAR ACTIVATED CARBON (GAC)

- Highly Effective in Removing PFAS
- Bench, Pilot and Field Implemented
- Cost-effective

Questions and Concerns

Contact: Jason Federico, Superintendent