NO POLLUTION ENTERPRISES

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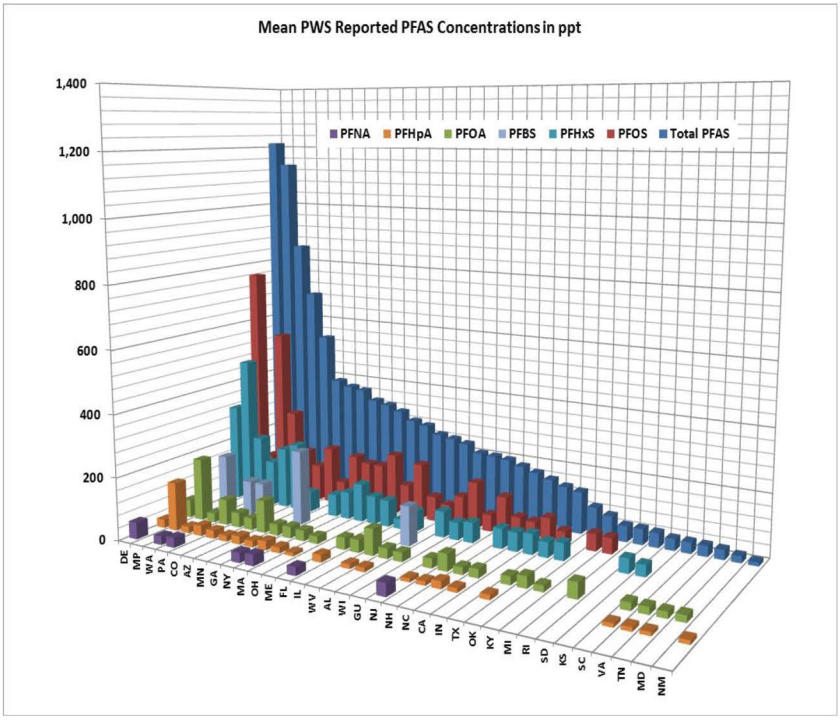
PFAS FACT SHEET
DOES YOUR PUBLIC WATER SUPPLY SYSTEM HAVE PFAS?

This fact sheet has been prepared by the technical staff of No-Pollution Enterprises. It is intended to keep our visitors informed of PFAS. A recently published study by the Harvard T.H. Chan School of Public Health reports levels of PFAS that exceed federally recommended safe levels in public drinking-water supplies for 6 million people in the United States, and that up to 100 million people could potentially be at risk. Please refer to other Fact Sheets for relevant information on these chemicals.

HEALTH CONCERNS

According to the Agency for Toxic Substances and Disease Registry (ATSDR), PFAS accumulates and remains in the human body, and the amount reduces very slowly over time. Scientists and medical professionals are concerned about the effects of these chemicals on human health and the lack of comprehensive health risk studies. The studies that have been conducted for humans have shown that certain PFAS may be associated with developmental delays in the fetus and child, including possible changes in growth, learning, and behavior; decreased fertility and changes to the body's natural hormones; increased cholesterol; changes to the immune system; increased uric acid levels; changes in liver enzymes; and prostate, kidney, and testicular cancer.



CONTAMINATED PUBLIC WATER SUPPLIES

The SDWA (Safe Drinking Water Act) requires that once every 5 years, EPA issue a list of no more than 30 unregulated contaminants to be monitored by Public Water Supplies (PWS). EPA's Unregulated Contaminant Monitoring Rule (UCMR 3) database contains measurements from public water supplies. This data base contains more than 36,000 sampling results for the following chemicals:

- PFBS (Perfluorobutanesulfonic acid)
- PFHpA (Perfluoroheptanoic acid)
- PFHxS (Perfluorohexanesulfonic acid)
- PFOA (Perfluorooctanoic acid)
- PFOS (Perfluorooctanesulfonic acid)
- PFNA (Perfluorononanoic acid)

Of the more than 36,000 monitoring results, about 1% of the sampling results showed measured values above the minimum detection limit for PFAS. The following chart reports the mean contaminant levels of PFAS in ppt (parts per trillion) reported for PWS for those states that detected PFAS. The reported values are the average reporting values for large PWS serving more than 10,000 people covering a 1-year period between 2013 and 2015.

EPA publishes health advisories to provide information on contaminants that can cause human health effects and are known or anticipated to occur in drinking water. EPA's health advisories are non-enforceable and non-regulatory and provide technical information to states agencies and other public health officials on health effects. EPA has established the health advisory levels at 70 ppt. When both PFOA and PFOS are found in drinking water, the combined concentrations of PFOA and PFOS should be compared with the 70 ppt health advisory level. This health advisory level offers a margin of protection for the population at large throughout their life from adverse health effects resulting from exposure to PFOA and PFOS in drinking water.

Various studies support that exposure to PFOA and PFOS over certain levels may result in adverse health effects, including developmental effects to fetuses during pregnancy or to breastfed infants (e.g., low birth weight, accelerated puberty, skeletal variations), cancer (e.g., testicular, kidney), liver effects (e.g., tissue damage), immune effects (e.g., antibody production and immunity), and thyroid effects and other effects (e.g., cholesterol changes). Not all PFAS chemicals have published health advisory levels but are suspected to be harmful.

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