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## PFAS – Historical and Current PFAS in Rantoul, IL

### What is PFAS?

PFAS refers to **per-** and **polyfluoroalkyl** substances. There are approximately 5,000 chemicals that are human-made in this group. The main characteristic is that they all contain carbon – fluorine bonds. These bonds are extremely hard to break. This causes PFAS to not breakdown easily; therefore, they remain in the environment, and are often referred to as “forever” chemicals.

PFAS have been manufactured since the 1940s for their resistance to water, oil, grease, stains, and heat. Due to their wide resistance, they are used in industry and in every day items. In the last decade or so, it has been determined that PFAS poses a risk to living things.

For more information on the history, sources, regulations, and current research, check out the following websites:

US EPA

<https://www.epa.gov/pfas/pfas-explained>

Illinois EPA

<https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/default.aspx>

CDC

[https://www.cdc.gov/biomonitoring/PFAS\\_FactSheet.html](https://www.cdc.gov/biomonitoring/PFAS_FactSheet.html)

National Institute of Environmental Health Sciences

<https://www.niehs.nih.gov/health/topics/agents/pfc/index.cfm>

<https://factor.niehs.nih.gov/2022/4/feature/3-feature-pfas-water-filter/index.htm>

### Sources of PFAS in Rantoul

PFAS can be found in wastewater due to industry activity and the prevalence of PFAS in every day items. PFAS has not been banned from manufacturing as of 2022. However, many companies have voluntarily started to discontinue use of PFAS chemicals.

Historically, PFAS was used in firefighter foam. It currently is no longer used for this purpose. Chanute Air Force base was used for firefighting training for 25 years before its closure in 1993. Due to this activity, in 2015, it was found that there are four sites on the old base that have groundwater PFAS contamination. This contamination is limited to the firefighting training areas. The landfills which are adjacent to the biggest training area, have PFAS contamination due to the training, but also due to the fact that the every day items in the trash more than likely contain PFAS. The water that goes through the landfill has been treated with a granulated activated carbon filter since 2016 to remove the PFAS. The effluent from this pre-treatment is tested annually for PFAS. The pre-treatment removes the PFAS to below detection. The water then goes to the Village of Rantoul’s wastewater treatment plant.

## **Village of Rantoul's Drinking Water**

The Village of Rantoul has been testing the source wells and drinking water for PFAS compounds annually since 2017. This is not an EPA requirement; however, the Village has wanted to stay pro-active in keeping the water safe for its citizens. PFAS has not been detected in the source wells or the finished drinking water.

In 2021, testing for Per-and Polyfluoroalkyl Substances (PFAS) was done on the finished drinking water samples collected by the Illinois Environmental Protection Agency (Illinois EPA) from the Village's water supply at the entry point to the distribution system. The Illinois EPA's sample analysis included a total of 18 PFAs. These contaminants were not present in the water supply at concentrations greater than or equal to the minimum reporting levels.

The most recent summary of contaminate testing for the drinking water can be found in the annual drinking water report posted on the Village's website at <http://www.myrantoul.com/326/Water-Division> .

The most current PFAS Health Advisory for drinking water can be found on the following EPA's website: <https://www.epa.gov/sdwa/drinking-water-health-advisories-pfoa-and-pfos>

## **Village of Rantoul's Wastewater**

In 2015, PFAS was discovered to be in the wastewater plant's influent, effluent, and biosolids. Biosolids are the organic solids that are removed from the wastewater during treatment. The majority of the PFAS is found in the solids.

There currently are no regulations for PFAS in wastewater or biosolids in the state of Illinois.

Historically, biosolids have been applied to agricultural fields due to the high level of nutrients. As a pro-active measure, the Village of Rantoul has not knowingly applied bio-solid sludge to any agricultural fields. The contaminated sludge has been sent to a landfill since the PFAS contamination was detected.

The Village of Rantoul has reached out to the few farmers that historically applied the wastewater treatment biosolids to their fields. We will be working with them in the next year to assess any impact the PFAS contamination may or may not have had on the fields that received the bio-solids in the past.

Any industry that is found to have PFAS in their wastewater will be asked to pre-treat their waste to eliminate the PFAS before it is sent to the Village of Rantoul's wastewater treatment plant. The Village of Rantoul's Code of Ordinances will be changed within the next year to reflex this pre-treatment requirement.

## **Conclusion**

PFAS is an active area of study. As more research is done, the Village of Rantoul will continue to adjust its practices and comply with all new regulations.

If you have any questions or concern, please reach out to the Village of Rantoul's Department of Public Works at 217-892-6526, Monday – Friday 7:30 am to 4:30 pm.