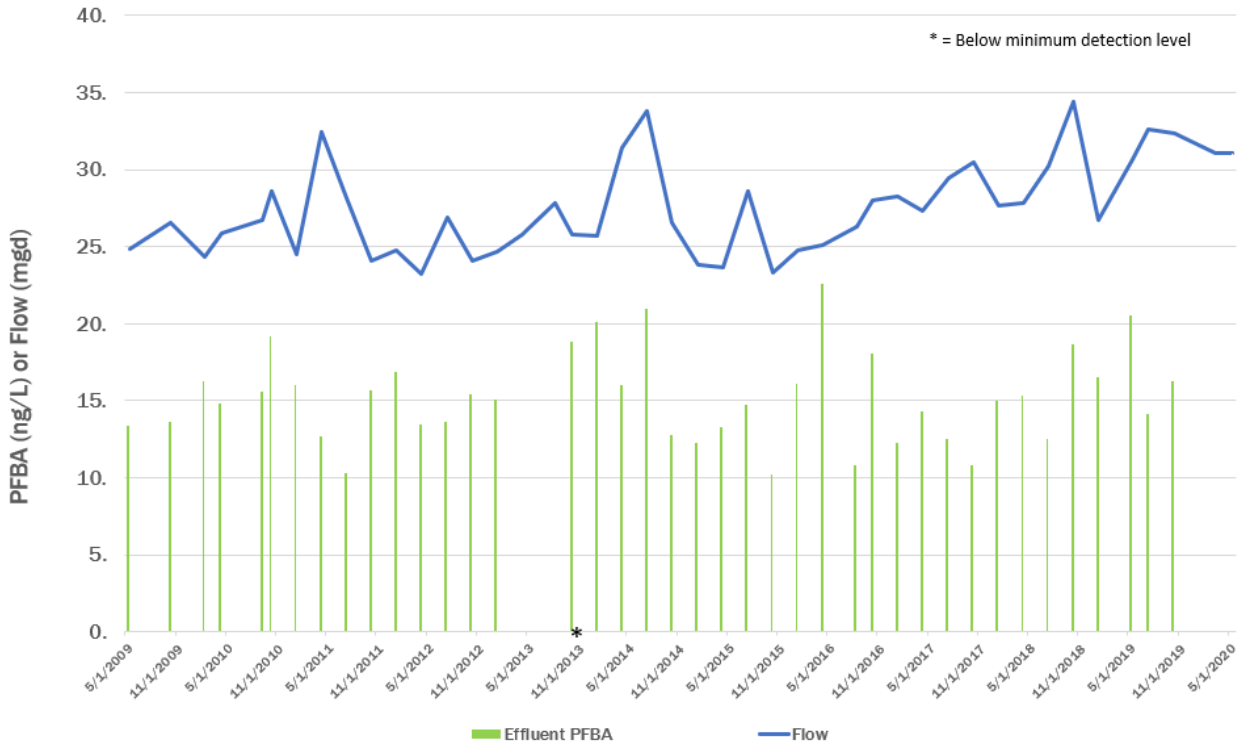


**Appendix 3-1. Per- and Poly-Fluoro Alkyl Substances  
(PFAS) Monitor Data for the Blue Lake  
Wastewater Treatment Plant (WWTP) Discharge**

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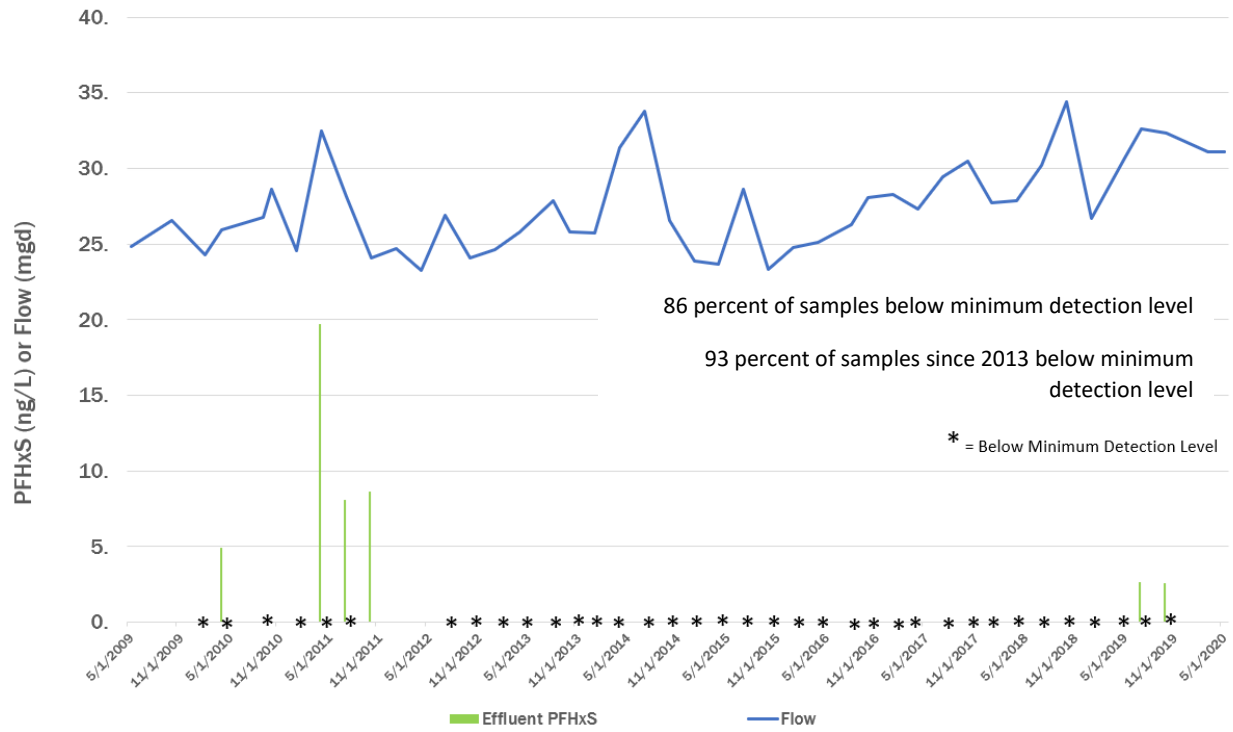
## Perfluorobenzoic acid (PFBA)

- Chemical Formula  $C_6F_5CO_2H$
- Currently used as a replacement for PFOS
- Well below MN Drinking water guidelines (7000 ng/L)



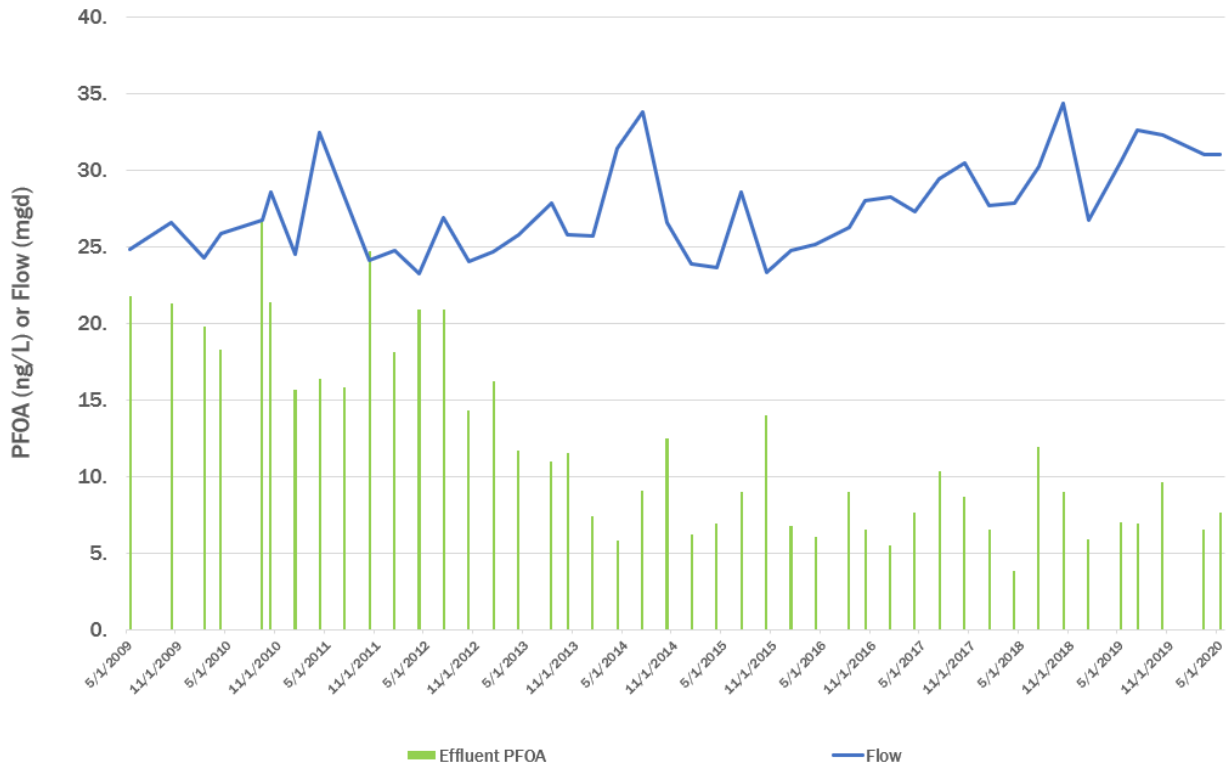
## Perfluorohexanesulfonate (PFHxS)

- Chemical formula  $C_6HF_{13}O_3S$
- Phased out of US production but still manufactured outside of the US
- Well below MN drinking water guidelines of 47 ng/L



## Perfluorooctanoic acid (PFOA)

- Chemical formula  $C_8HF_{15}O_2$
- Decreasing trend in Blue Lake discharge
- Generally phased out of US by 2006 and globally by 2015
- Industry trend moving to compounds with less than 5 carbons
- Well below MN drinking water guidelines of 35 ng/L



## Perfluorooctane sulfonic acid (PFOS)

- Chemical formula  $C_8HF_{17}O_3S$
- Key component of Scotchguard
- 3M stopped using PFOS/PFOA in 2000
- Still manufactured in China
- Below MN drinking water guidelines of 15 ng/L

