April 23, 2025

Per- and Polyfluoroalkyl Substances (PFAS) Update

Justin Brazil, Director of Water Quality

Perdue Water Treatment Plant-Clearwell Effluent (ng/L)										
Sample Date	Quarter	PFBS	PFHpA	PFHxS	PFHxA	PFOS	PFOA	PFBA	PFPeA	Hazard Index
10/23/2024	1	10.7	4.6	6.7	7.7	5.7	9.4	10.5	7.3	0.68
1/14/2025	2	11.0	4.7	9.4	8.6	4.8	11.4	12.3	7.6	0.95
2/5/2025	2	11.1	4.7	6.6	9.2	ND	9.6	12.6	7.7	0.67
3/20/2025	2	9.2	3.8	6.9	6.0	3.0	7.9	11.0	6.0	0.69
4/2/2025	3	8.9	3.3	7.1	6.3	ND	7.9	16.2	5.3	0.71

PFAS Compound	MCL (ng/L)	MCLG	CA Notification Level (ng/L)	CA Response Level (ng/L)
Perfluorobutanesulfonic acid (PFBS)	HI (1)		500	5000
Perfluoroheptanoic acid (PFHpA)				
Perfluorohexanesulfonic acid (PFHxS)	10; HI (1)	10; HI (1)	3	20
Perfluorohexanoic acid (PFHxA)				
Perfluorooctanesulfonic acid (PFOS)	4.0	0	6.5	40
Perfluorooctanoic acid (PFOA)	4.0	0	5.1	10
Perfluorobutanoic acid (PFBA)				
Perfluoropentanoic acid (PFPeA)				
Hazard Index	1	1		

MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
ND = Not Detected

$$\text{Hazard Index (1 unitless)} = \left(\frac{[\text{HFPO} - \text{DA}_{\text{ppt}}]}{[10\ \text{ppt}]}\right) + \left(\frac{[\text{PFBS}_{\text{ppt}}]}{[2000\ \text{ppt}]}\right) + \left(\frac{[\text{PFNA}_{\text{ppt}}]}{[10\ \text{ppt}]}\right) + \left(\frac{[\text{PFHxS}_{\text{ppt}}]}{[10\ \text{ppt}]}\right)$$

Clearwell Eff PFOA Response Level Calculation (ng/L)			
Quarter	Date	PFOA	Quarterly Average
Q1	10/23/2024	9.4	9.4
Q2	1/14/2025	11.4	9.6
	2/5/2025	9.6	
	3/20/2025	7.9	
Q3	4/2/2025	7.9	7.9
Q4	N/A	N/A	0
QRAA			**6.7**

Perfluorooctanoic acid (PFOA) Response Level = 10 ng/L

Questions?