

Drinking Water and Clean Water Joint Advisory Council June 14, 2022



June 2022

To Protect and Enhance Kentucky's Environment

Kentucky Division of Water

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Water Quality Branch

Melanie Arnold, Manager

Surface Water Permits Branch

Jason Hurt, Manager

Water Resources Branch

Shawn Hokanson, Manager

Water Infrastructure Branch

Jory Becker, Manager

Watershed Management Branch

Bill Caldwell, Acting Manager

The mission of the Kentucky Division of Water is to manage, protect and enhance the quality and quantity of the Commonwealth's water resources for present and future generations through voluntary, regulatory and educational programs.

Intention of DW/CW Advisory Council

- To provide an opportunity for industry, the regulated community, the engineering community, consumers, and other stakeholders to provide the Cabinet/Department/Division updates and input on drinking water and clean water issues
 - Drinking Water Advisory Council
 - Clean Water Advisory Council



Since we last met...

- EPA Region 4 KPDES Permit Quality Review
- PWS Risk & Resiliency Assessments & Emergency Response Plans completed (per 2018 AWIA)
- EPA State Director's Meeting
- 2018/2020 Integrated Report
 - Updated/upgraded Water Health Portal
 - <https://water-health-portal-kygis.hub.arcgis.com/>
- Nutrients
 - EPA will likely be commenting on permits issued to POTWs that discharge to an impaired water
 - WWTP Optimization – BIL energy-related funding opportunity?
 - Best practices from Lawrenceburg, Princeton, Greenville, Glasgow
- PFAS
 - Continued implementation of DEP strategic plan
 - Anticipate announcement from EPA this week
 - John Webb providing additional information
- WOTUS
 - Navigable Water Protection Rule (NWPR) reinstated; [40 CFR 121](#)
 - EPA soliciting comments on [proposed clean water act section 401 water quality certification improvement rule](#)

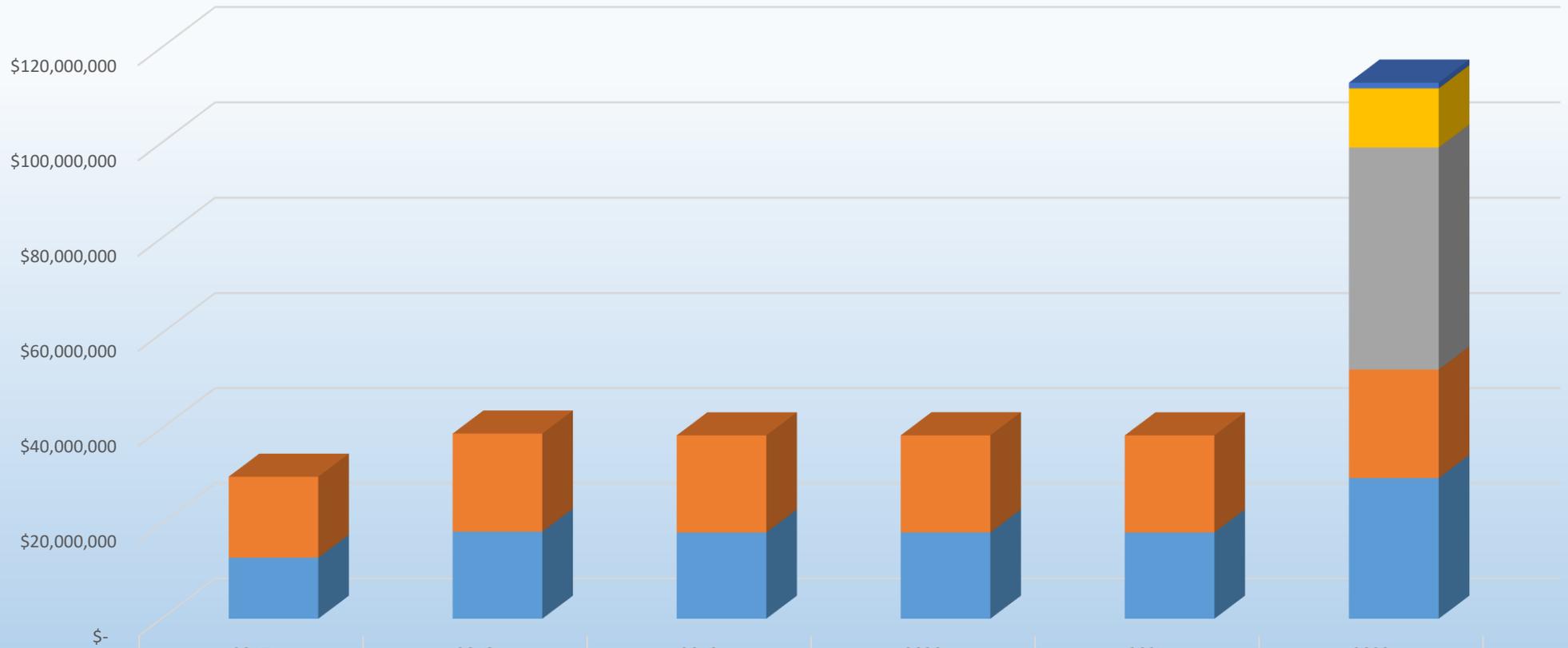


Since we last met...

- Infrastructure Investment and Jobs Act (IIJA)/Bipartisan infrastructure Law (BIL)
 - Implementation memo at: <https://www.epa.gov/dwsrf/bipartisan-infrastructure-law-srf-memorandum>
 - Seeking input on:
 - SRF ranking criteria
 - Disadvantaged communities' definition
 - Long-standing KY definition, EPA EJ Screen
 - Other potential challenges (BABA waivers, Justice40, etc.)
 - Gulf Hypoxia Task Force
 - Guidance received on June 10



KY SRF Allocations - 2017-2022



	2017	2018	2019	2020	2021	2022
CWSRF Emerging Contaminants						\$1,199,000
DWSRF Emerging Contaminants						\$12,425,000
DWSRF Lead Service Line Replacement						\$46,593,000
Clean Water SRF	\$17,044,000	\$20,634,000	\$20,427,000	\$20,429,000	\$20,427,000	\$22,839,000
Drinking Water SRF	\$12,830,000	\$18,303,000	\$18,132,000	\$18,144,000	\$18,127,000	\$29,587,000

■ Drinking Water SRF
 ■ Clean Water SRF
 ■ DWSRF Lead Service Line Replacement
 ■ DWSRF Emerging Contaminants
 ■ CWSRF Emerging Contaminants





Productivity

DOW Priorities for 2022



Accountability

- Provide strategic guidance on water infrastructure investments
- Continue department's PFAS-related work
- Continue Nutrient Reduction Strategy work and Gulf hypoxia task force participation
- Better use of IT investments (data collection, mapping) and website
- Continue Triennial Review of WQS
- Work toward institutionalizing environmental justice
- Enhance partnerships and collaborations where possible
- Engage DW/CW Advisory Council subcommittees and workgroups
 - Establish new subcommittees as necessary



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Contact Information (water.ky.gov)

Director's Office	Carey Johnson, Director, 502-782-6990, Carey.Johnson@ky.gov John Webb, Assistant Director, 502-782-7126, John.Webb@ky.gov Sarah Gaddis, Environmental Scientist Consultant Senior, 502-782-6953, Sarah.Gaddis@ky.gov	General questions.
Drinking Water Branch	Alicia Jacobs, Branch Manager, 502-782-6987, Alicia.Jacobs@ky.gov	Maintains list of certified laboratories. Provides technical assistance to drinking water facilities. Ensures drinking water complies with federal and state regulations.
Field Operations Branch	Connie Coy, Branch Manager 502-782-6587, Constance.Coy@ky.gov	Inspects municipal and non-municipal facilities. Responds to reports of spills or bypasses. Investigates citizen's complaints.
Program Planning and Program Support Branch	Heather Baker, Branch Manager, 502-782-7124, Heather.Baker@ky.gov	Accepts general public inquiries. Manages contracts and grants. Manages Division HR and purchases.
Surface Water Permits Branch	Jason Hurt, Branch Manager, 502-782-6167, Jasonm.Hurt@ky.gov	Issues KPDES permits to discharge stormwater from construction sites. Issues KPDES permits for wastewater discharges. Oversees pretreatment programs. Oversees Municipal Separate Storm Sewer Systems (MS4) program.
Water Infrastructure Branch	Jory Becker, Branch Manager, 502-782-6887, Jory.Becker@ky.gov	Issues construction permits for drinking water facilities and distribution lines. Issues construction permits for wastewater treatment facilities. Issues construction permits for sewer lines and extensions.
Water Quality Branch	Melanie Arnold, Branch Manager 502-782-6879, Melanie.Arnold@ky.gov	Maintains list of special use and impaired waters. Assesses the water quality of rivers, lakes and streams.
Water Resources Branch	Shawn Hokanson, Branch Manager, 502-782-6977, Shawn.Hokanson@ky.gov	Issues permits for construction in floodplain. Issues permits to construct dams. Issues §401 water quality certifications for construction in waters of the US.
Watershed Management Branch	Bill Caldwell, Acting Branch Manager 502-502-782-6906, Bill.Caldwell@ky.gov	Issues permits to withdraw water. Certifies well drillers and maintains well driller directory. Maintains database of water availability for use (quantity and quality).



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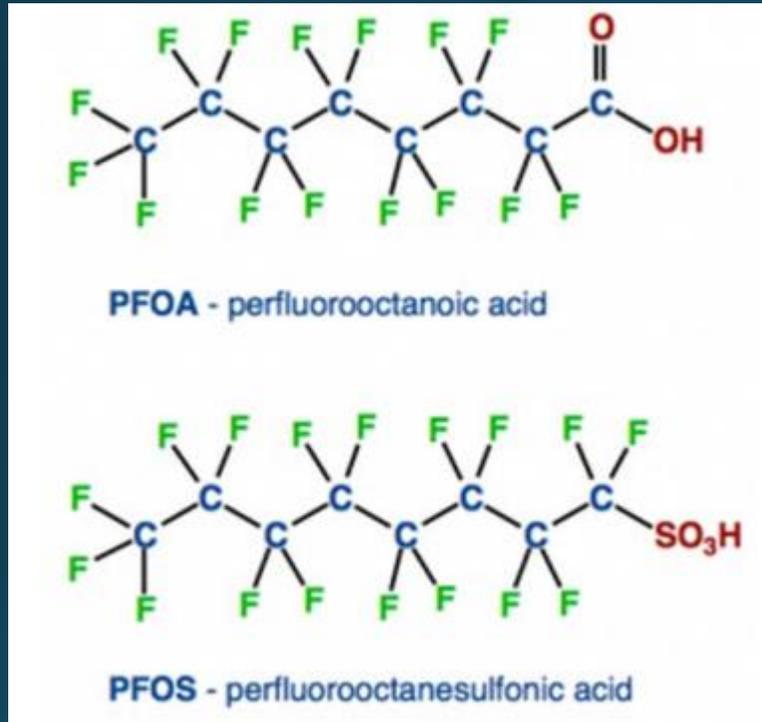
PFAS Update

John Webb – Assistant Director, KDOW
Kentucky Department for Environmental Protection

Per- and Polyfluoroalkyl Substances (PFAS)

Commercial and Industrial Uses of PFAS	
Commercial Products	Industrial Uses
Cookware (nonstick, Analon [®] , Teflon [®])	Photo Imaging
Fast Food Containers and Bags	Metal Plating
Candy Wrappers	Semiconductor Coatings
Microwave Popcorn Bags	Hydraulic Fluids
Personal Care Products	Medical Devices (Including Implants)
Cosmetics (Nail Polish, Eye Makeup)	Class B Firefighting Foams (AFFF)
Paints and Varnishes	Insect Bait
Stain-Resistant Carpet	Printers and Copiers
Stain-Resistant Applications (Scotchgard [®])	Oil Additives
Water-Resistant Clothing	Automobile Parts and Lubricants
Cleaning Products	Oil Production Fluids
Electronics and Circuit Boards	Textiles and Carpet Manufacture
Ski Wax	Paper and Packaging
Sunblock	Rubber and Plastics

Per- and Polyfluoroalkyl Substances (PFAS) Background Information



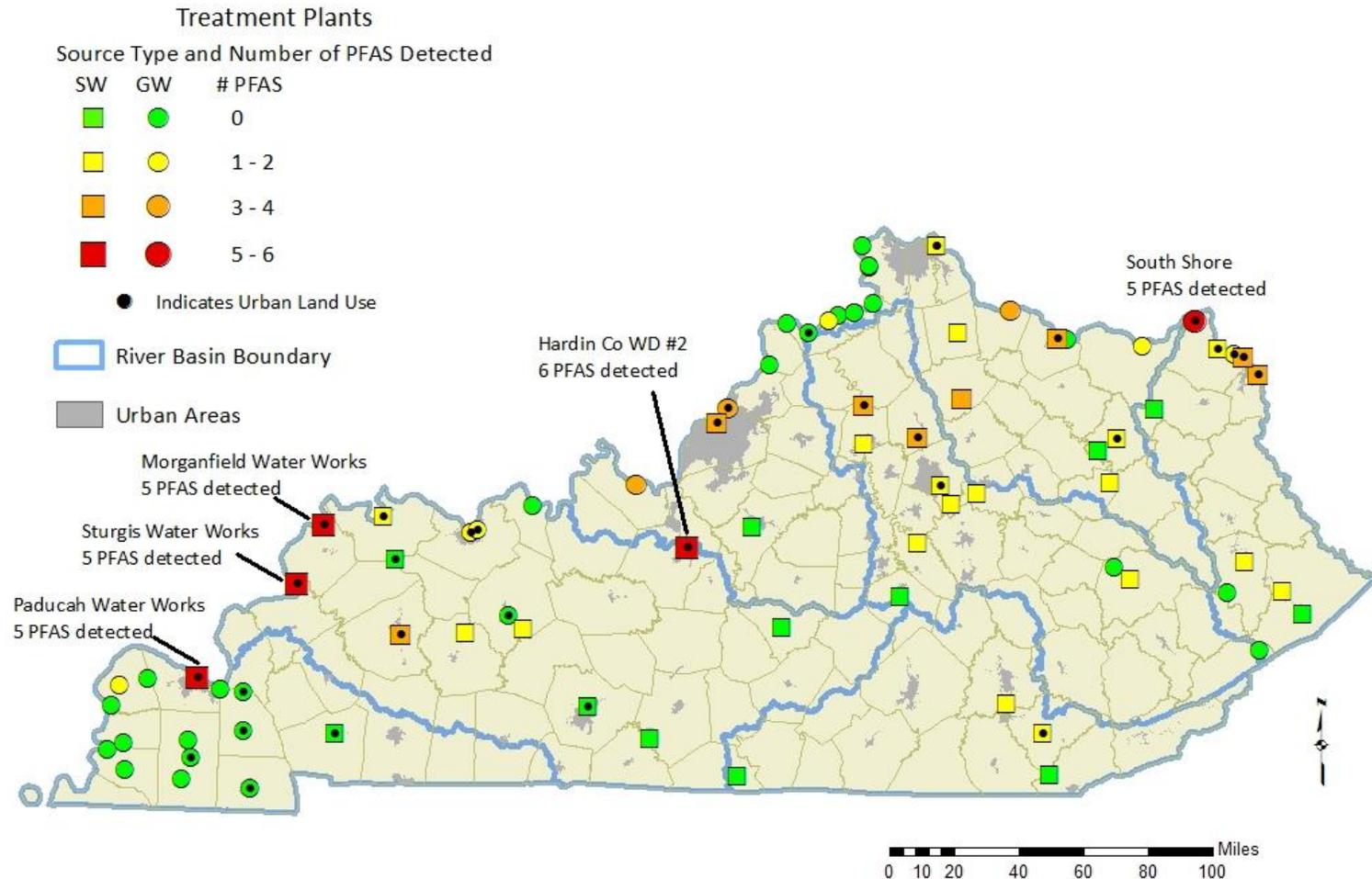
- Strong chemical bond
- Thermally stable
- Resists degradation
- Water, heat, and oil resistant

EPA Lifetime Health Advisory – May 2016

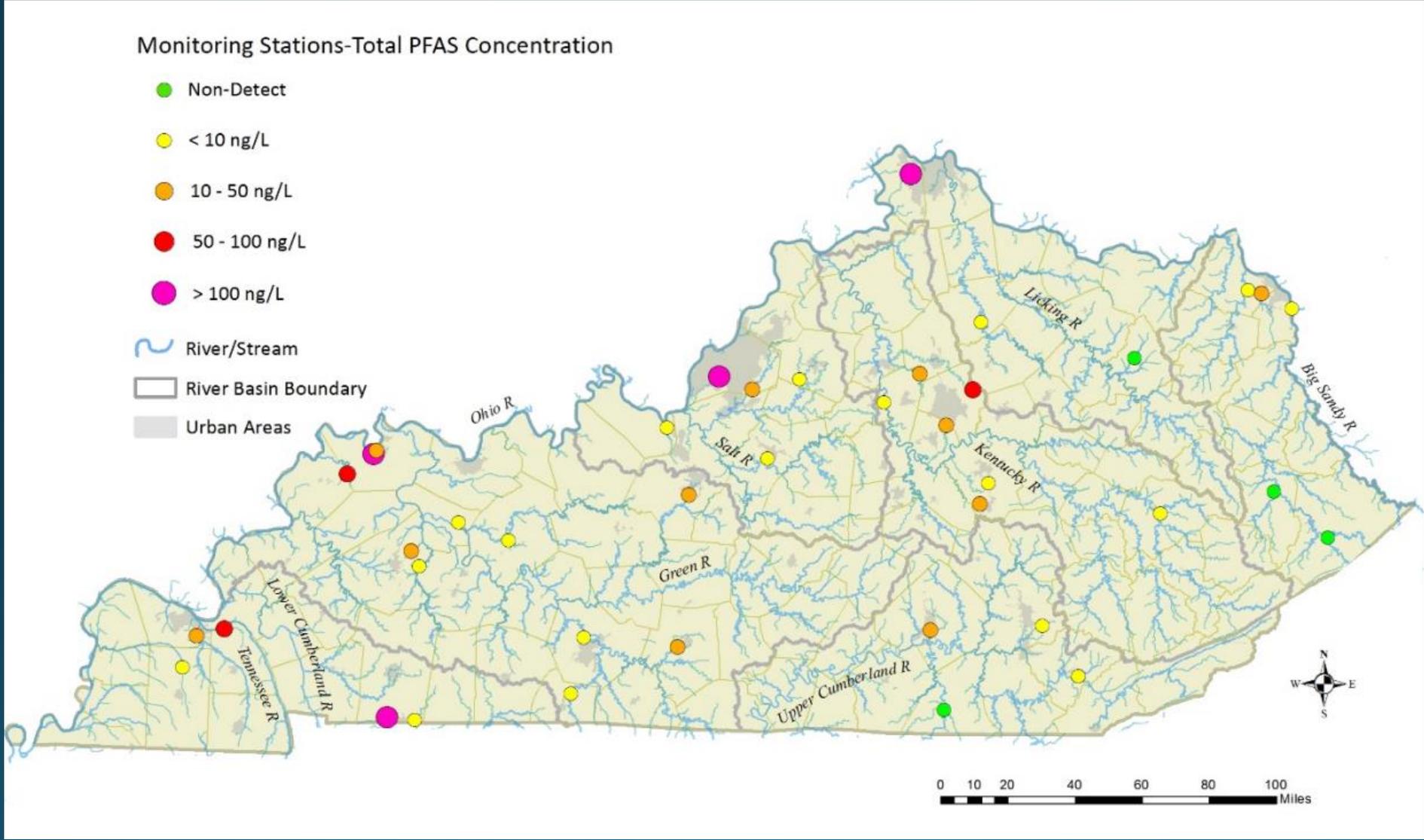
- PFOA HA = 70 ng/L (ppt); PFOS HA = 70 ng/L (ppt)
- PFOA + PFOS HA = 70 ng/L (ppt)

PFAS – Drinking Water (2019 DOW Study)

Drinking Water Treatment Plants in Kentucky
Coded by Source Type and Predominant Land Use Influence
Showing Number of Unique PFAS Detected



PFAS – Surface Water (2021 DOW Study)



PFAS – EPA Roadmap 2021-2024

- Establish national primary drinking water regulation for PFOA and PFOS
 - Proposed Rule expected Fall 2022, Final Rule expected Fall 2023
- Publish Final recommended Ambient Water Quality Criteria for PFAS
 - Aquatic Life Criteria expected Winter 2022, Human Health Criteria expected Fall 2024
- Restrict PFAS discharges from Industrial Sources through an Effluent Limitations Guidelines (ELG) program
 - Proposed Rules expected Summer 2023 (organic chemicals, plastics, and synthetic fibers) and Summer 2024 (metal finishing and electroplating)

EPA Recommended Aquatic Life Criteria

Table 1. Draft Recommended Freshwater Aquatic Life Water Quality Criteria for PFOA and PFOS

Criteria Component	Acute Water Column (CMC) ¹	Chronic Water Column (CCC) ²	Invertebrate Whole-Body	Fish Whole-Body	Fish Muscle
PFOA Magnitude	49 mg/L	0.094 mg/L	1.11 mg/kg ww	6.10 mg/kg ww	0.125 mg/kg ww
PFOS Magnitude	3.0 mg/L	0.0084 mg/L	0.937 mg/kg ww	6.75 mg/kg ww	2.91 mg/kg ww
Duration	1-hour average	4-day average	Instantaneous ³		
Frequency	Not to be exceeded more than once in three years, on average	Not to be exceeded more than once in three years, on average	Not to be exceeded more than once in ten years, on average		

¹ Criterion Maximum Concentration.

² Criterion Continuous Concentration.

³ Tissue data provide instantaneous point measurements that reflect integrative accumulation of PFOA or PFOS over time and space in aquatic life population(s) at a given site.