Chesapeake Bay and Water Resources Policy Committee

REGULATORY AND LEGISLATIVE ISSUES ON THE HORIZON

JULY 21, 2023

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AQUALAW

OVERVIEW

- Federal and State PFAS Update
- Lead and Copper Rule
- Federal Budget for State Revolving Loan Funds/Water Infrastructure Funding
- Potential 2024 Maryland and Virginia Legislation

EPA PROPOSED RULE (MARCH 14, 2023)

- **EPA Proposes to Adopt Limits for PFOA and PFOS**
  - PFOA: 4 ppt (parts per trillion)
  - PFOS: 4 ppt
  - 4 additional chemicals will be addressed through "hazard index" (HFPO (Gen X), PFNA, PFHxS, PFBS)
  - Comment period closed May 30, 2023 (thousands of comments received)

- **Public Water Suppliers Would Be Responsible For**
  - Monitoring for PFAS
  - Notifying the public of PFAS levels
  - Reducing the levels in drinking water if they exceed proposed standard
  - 3-year compliance period once EPA adopts final MCLs

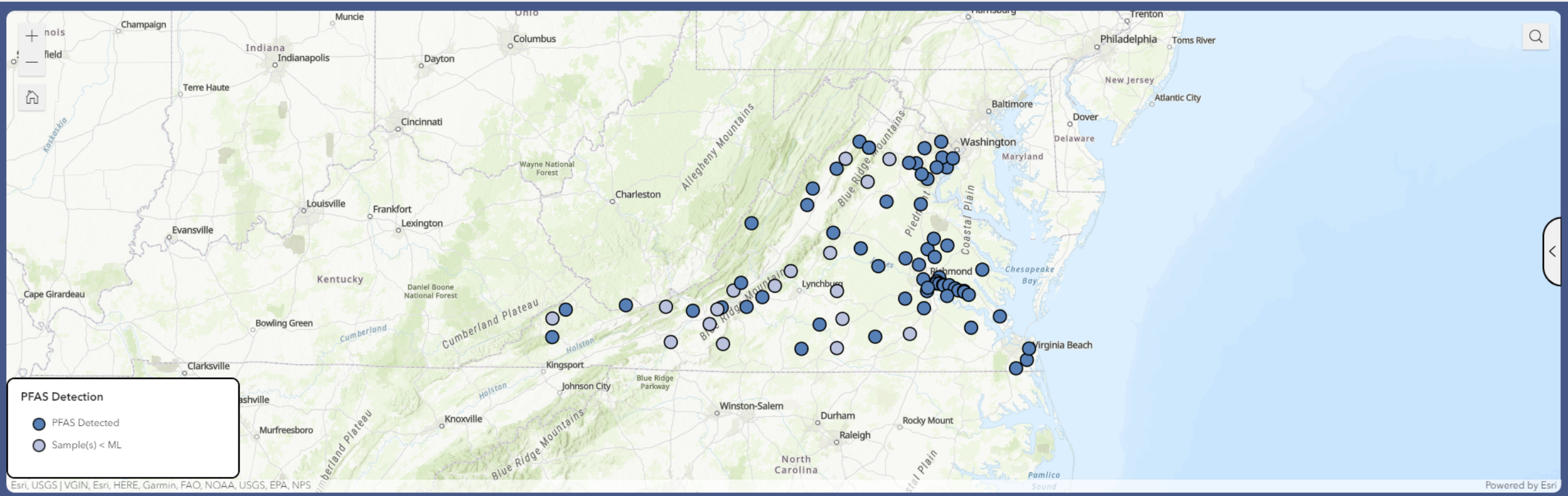
POTENTIAL COST

- **EPA Estimates ≈ 66,000 Public Systems Subject to Rule**
  - With ≈ 3,400-6,300 systems exceeding 1 or more MCL

- **Estimated Cost Per Year is $772 Million - $1.2 Billion**
  - Includes administration, monitoring, treatment
  - Capital costs, and yearly operation and maintenance costs
  - Could increase by $30-61 Million if water systems have to dispose of PFAS as hazardous waste

VIRGINIA APPROACH TO PFAS

- **Legislation Has Been Varied/Problematic**
  - 2020: Adopt VA-specific drinking water MCLs ahead of EPA
  - 2022: Mostly wait for EPA (effectively repealing 2020 law)
  - 2023: Passed targeted bill on one type of Industrial User; broader public notice bill failed
- **Regulatory Agency Steps**
  - Occurrence studies ongoing
    - See slide below on Statewide PFAS Sampling
  - Until regulations developed, case-by-case responses
  - Site-specific drinking water responses by VDH
  - VPDES permitting procedures in development at DEQ
    - Permit conditions to address PFAS
    - Concerns about monitoring cost, extent, and lab turnaround times



Dashboard Organization:

This dashboard presents PFAS detection and concentrations without respect to screening thresholds or regulatory standards. The dashboard will be updated to reflect how sampling results relate to water quality criteria once they are developed by EPA and adopted by Virginia.

There are 5 pages included in this dashboard. You are currently viewing the landing page. This page includes a summary of statewide sampling results, an outline of how the data were processed, and definitions and context relevant to the information presented here. The map displayed above illustrates where any PFAS analyte has been detected above the minimum level of quantitation (ML). Clicking the points on this map will display a list of the 40 analytes included in EPA Draft Method 1633 and will provide the number of detections as a fraction of the number of samples taken at a given site. Additionally,

PFAS SAMPLING IN VIRGINIA

	Phase 1	Phase 2
Timeline	Summer 2021	June-July 2023
# of Waterworks	45	≈400
# of Sampling Locations	63	≈440
Type of Sampling Locations	Source Waters and Entry Points	Entry Points Only
Results w/ Detections	15*	In Progress
Report/More Information	RD877 RD681	VDH ODW PFAS Webpage

MARYLAND APPROACH TO PFAS

- **State Has Conducted Three Rounds of Testing**
  - Phase I: 129 public water systems (Report issued in July 2021)
  - Phase II: 65 public water systems (Report issued in April 2022)
  - Phase III: 759 drinking water samples tested (Report issued Sept. 2022)
- **State Has Also Added Testing Requirement to Discharge Permits**
  - 15 WWTPs with potential non-domestic PFAS sources
- **State Is Looking at Biosolids**
  - Asked 40 WWTPs to voluntarily test
  - Moratorium on issuing land application permit for new field or source pending results of testing

MARYLAND PHASE I RESULTS > PROPOSED MCLS

Action Level Thresholds Finished Water Concentrations PFOA+PFOS(ppt)	Number of IFWS	Number of CWSs*	Primary Water Source being Treated
≥70 ppt	2	2	Groundwater
35 ppt – 70 ppt	2	2	Groundwater
28 ppt – 35 ppt	1	1	Groundwater
10 ppt – 28 ppt	22	13	Groundwater/Surface Water
< 10 ppt	71	35	Groundwater/Surface Water
Non-Detect	33	30	Groundwater/Surface Water

Table 4: Overview of Phase 1 CWS-WTPs Initial Finished Water Results.

MARYLAND PHASE II RESULTS > PROPOSED MCLS

Concentration of PFOA+ PFOS in ppt (ppt) (x)	Number of Initial Groundwater Samples (IGWS)	Number of Initial Point of Entry Samples (IPOE)	Number of Repeat Unfinished Groundwater Samples	Number of Follow-Up POE Samples
X = ND	87*	6**	---	---
X < 10	56	1	3	---
10 ≤ X < 28	13	--	3	---
28 ≤ X < 35	1	1***	--	1***
35 ≤ X < 70	1	--	2	2
X ≥ 70	---	--	---	---
Total Number of Samples	159	8	8	3

Table 5: Overview of Phase 2 Results

* This number includes the 22 IGWS withdrawing from confined aquifers – all of which did not detect PFOA, PFOS, or any of the other PFAS when tested.

** 4 of the IPOE samples collected consist of groundwater from a confined aquifer– all of which did not detect PFOA, PFOS, or any of the other PFAS when tested.

*** This number represents a sample collected from Gateway Village Mobile Home Park's common header, consisting of groundwater from wells 1 and 2. For this report, these samples will be referred to as POE samples.

MARYLAND PHASE III RESULTS > PROPOSED MCLS

Results: Total PFOA + PFOS Concentrations

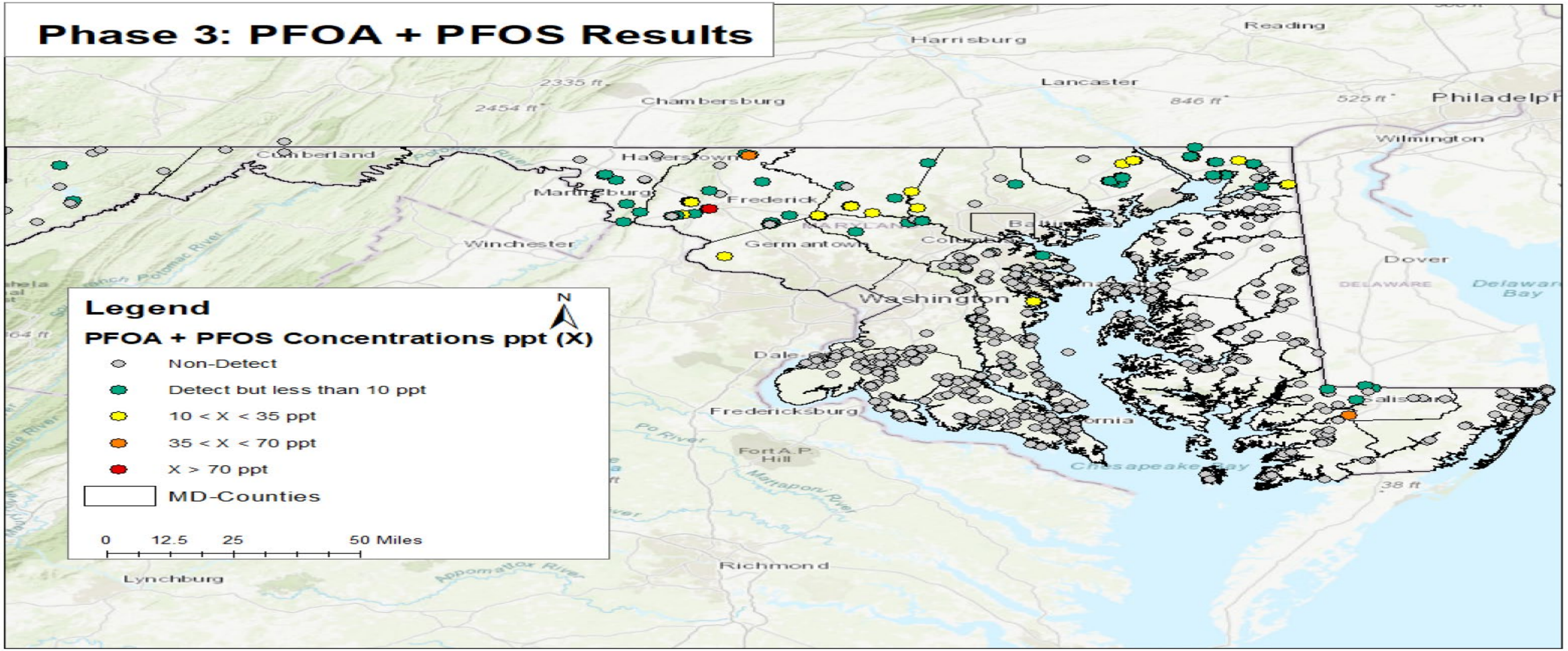


Figure 1: Location of PFOA + PFOS detects stratified by concentration.

(X) in Figure 1 refers to Total PFOA + PFOS concentration measured in the sample.

PREPARING FOR THE FUTURE

- **Work to Understand PFAS Levels and Sources**
  - Drinking Water
    - Especially if intake is downstream of airports, military bases, firefighting training facilities, industrial discharges
    - Also, groundwater sources in vicinity of same
    - Test source water and finished water
  - Wastewater
    - Test influent, effluent, and biosolids
- **Compare Results to Pending Regulatory Thresholds (MCL, etc.)**
- **Minimize Wherever Possible**

INSTALL TREATMENT?

- **Persistently "High" PFAS Levels. . .**
- **Optimal PFAS Removal Technology for Your System**
  - Granulated Activated Carbon (GAC), Reverse Osmosis (RO), other?
  - Capital and O&M cost; footprint; disposal of spent media or discharge of RO waste stream; affordability; rate impact; availability of funding/grants

PFAS and the Bay Program

- **2014 Bay Agreement**
  - Includes Toxics

GOALS & OUTCOMES

TOXIC CONTAMINANTS

Toxic contaminants harm fish and wildlife in the Bay and its watershed and create risks to human health that limit the amount of fish that people can eat. Reducing the impacts of toxic contaminants is critical to improve the health of fish and wildlife, thereby improving their recreational value.

GOAL: Ensure that the Bay and its rivers are free of effects of toxic contaminants on living resources and human health.

Toxic Contaminants Research Outcome

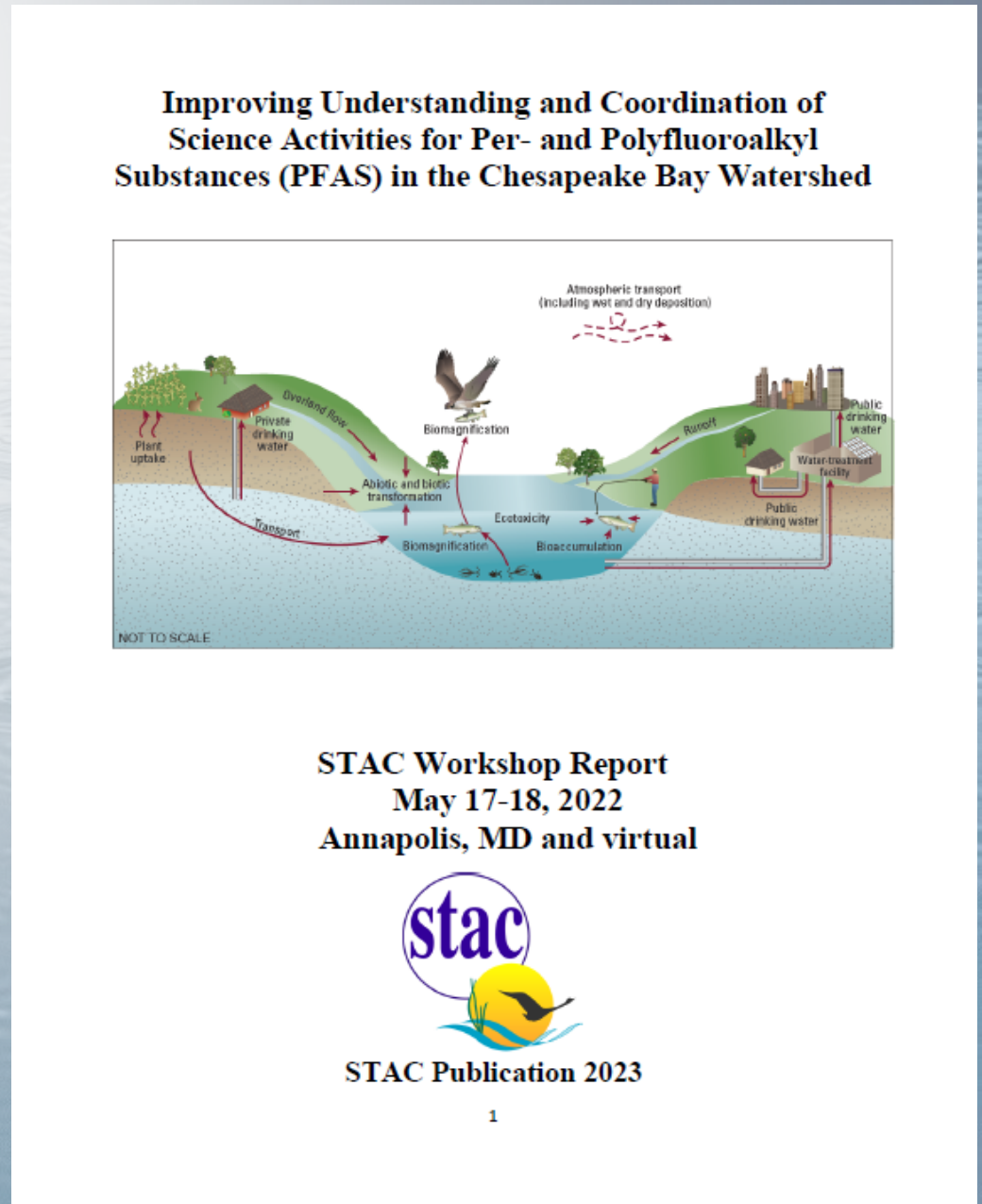
Continually increase our understanding of the impacts and mitigation options for toxic contaminants. Develop a research agenda and further characterize the occurrence, concentrations, sources and effects of mercury, PCBs and other contaminants of emerging and widespread concern. In addition, identify which best management practices might provide multiple benefits of reducing nutrient and sediment pollution as well as toxic contaminants in waterways.

Toxic Contaminants Policy and Prevention Outcome

Continually improve practices and controls that reduce and prevent the effects of toxic contaminants below levels that harm aquatic systems and humans. Build on existing programs to reduce the amount and effects of PCBs in the Bay and watershed. Use research findings to evaluate the implementation of additional policies, programs and practices for other contaminants that need to be further reduced or eliminated.

PFAS and the Bay Program (cont.)

- **2023 STAC Report**
  - Identifies land application as a potential nonpoint source of PFAS
- **Bay Workgroup's Biosolids Interest**
  - Wants to respond to and implement recommendations from report
  - Has also scheduled meeting: Promoting an understanding of PFAS in land-applied biosolids; occurrence and fate, risk assessment status of PFOS and PFOA in biosolids, and methods of analysis (Aug. 9 1-3 PM)



Actionable Recommendations

Study Design and Approaches

- Consider a monitoring network and uniform approaches to directly assess PFAS.
- Design studies that relate PFAS occurrence and effects in different land-use settings.

Consistency in Data Collection

- Develop and adopt similar methods to better compare data among studies.
- Collect standardized data for ecological risk assessments across a range of species to better protect aquatic resources.

Communicate and Collaborate

- Enhance integration to facilitate broad coordination across the Watershed.
- Collaborate amongst jurisdictions to develop data needs for fish consumption advisories.

USGS
science for a changing world

DRINKING WATER LEAD AND COPPER RULE

- **Lead and Copper Rule Originally Issued by EPA in 1991**
  - Meant to control amount of lead and copper in drinking water
  - Exposure may result in health impacts esp. for children

- **Established An Action Level for Lead of 15 ppb**
  - If 10% of samples from homes exceed action level must take corrective action

- **Positive Results Over Past 25 Years**
  - Number of large systems exceeding action level has decreased by over 90%

LEAD AND COPPER RULE REVISIONS

- **Rule Has Been Revised Several Times Since 1991**
  - History discussed at: https://www.epa.gov/dwreginfo/lead-and-copper-rule#rule-history

- **Lead and Copper Rule Revisions (LCCR)**
  - Issued Dec. 17, 2021
  - Compliance date of Oct. 16, 2024
  - See slides below on inventory and other requirements

- **At Same Time, EPA Proposed Lead and Copper Rule Improvements (LCRI)**
  - EPA intends to finalize LCRI before Oct. 16, 2024

LCCR REQUIREMENTS

- **Lead Service Line (LSL) Replacements**
  - Systems serving more than 10,000 people
  - With more than 10% of samples above action level
  - Must replace 3% of LSL per year
  - May stop if system meets action level in four consecutive 6-month monitoring periods
  - Larger systems may replace at rate approved by state

- **Customer Tap Sampling**
  - At sites with LSL, must take 5th liter sample to analyze for lead
  - In addition to 1st liter sample for copper if copper is being monitoring
  - For non-LSL sites, 1st liter sample for both lead and copper

LCCR REQUIREMENTS (CONT.)

- **Trigger and Action Levels**
  - New lead trigger level is 10 ppb
  - Lead action level stays same at 15 ppb

- **Exceedance of Either Trigger or Action Level**
  - Requires system take specific action to reduce lead levels
  - Type of action depends on size of system
    - EX: Medium or large system with LSL with corrosion control treatment in place that exceeds trigger level must re-optimize treatment, notify customers, implement goal-based replacement program, conduct annual tap sampling (no reduced monitoring)

POTENTIAL CHANGES UNDER LCRI

- **Mandates LSL Replacement**
  - EPA is considering replacement of all lines
  - Bipartisan Infrastructure Law provides $15 Billion in funding over 5 years (not enough)
  - EPA will be reviewing how to address cost for customer-initiated replacements
- **Change Customer Tap Sampling Procedure**
  - EPA is considering potential revisions to tap sampling requirements
- **Set Lower Trigger and Action Levels**
- **Prioritize Protections for Historically Disadvantaged Communities**

DRINKING WATER SYSTEMS ARE CURRENTLY WORKING ON 2024 SUBMITTALS

- **LSL Inventory**
  - Must include service line materials and information sources
  - For both public and private parts of every service line
- **LSL Replacement Plan**
  - If system has lead, galvanized requiring replacement, or lead status unknown service lines
- **List of Schools and Child-Care Facilities Served**
- **Revised Compliance Tap Sampling Locations**

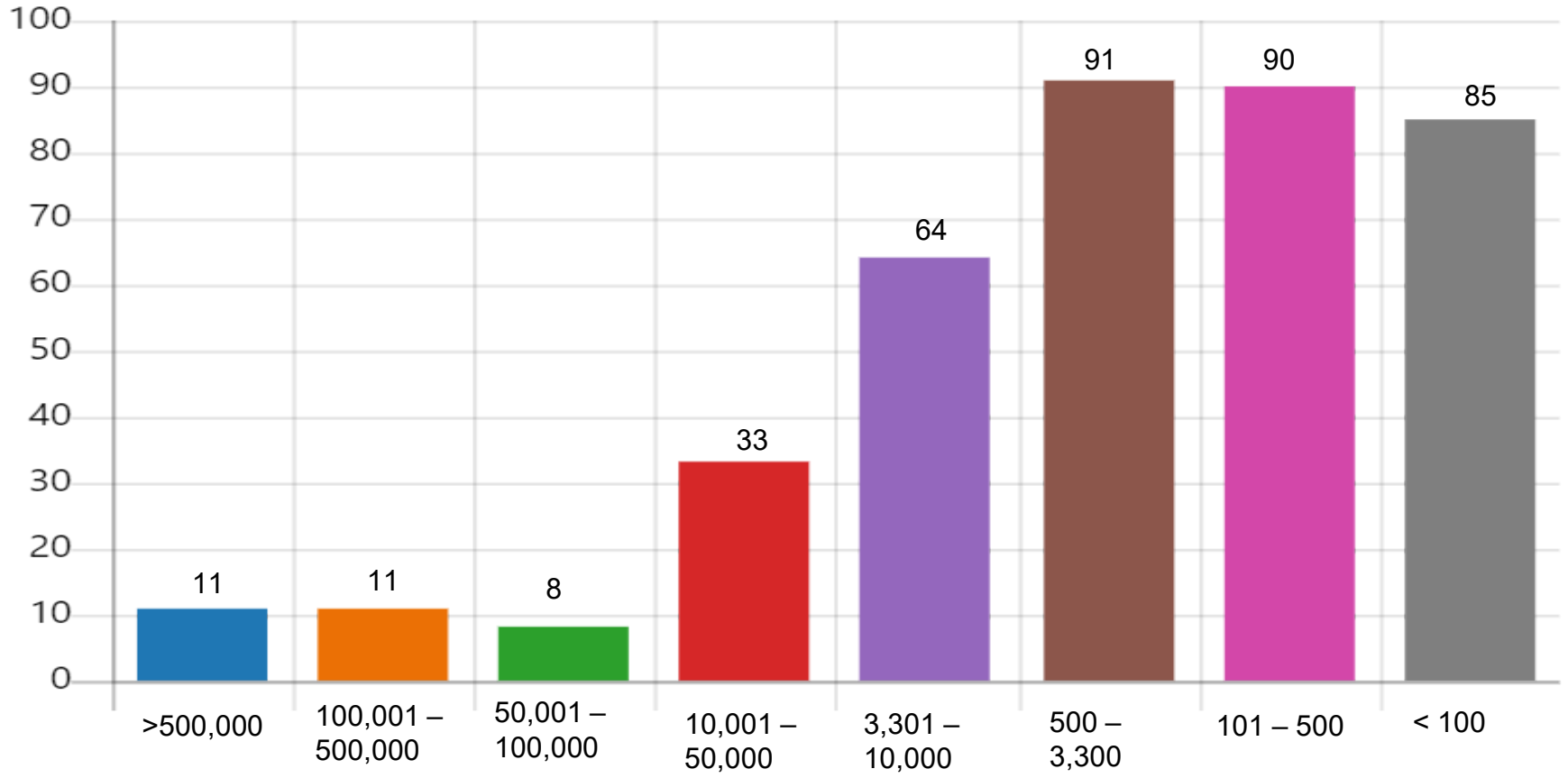
Lead Service Line Inventory Questionnaire (March 2023)

What is your type of Waterworks?

Community	275
Nontranisent Noncommunity	94
Both	24

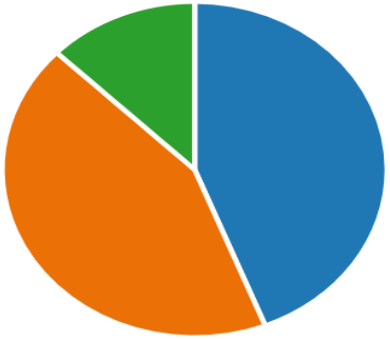
393 Responses

What is the population served by your waterworks?



Have you started working on your Lead Service Line Inventory?

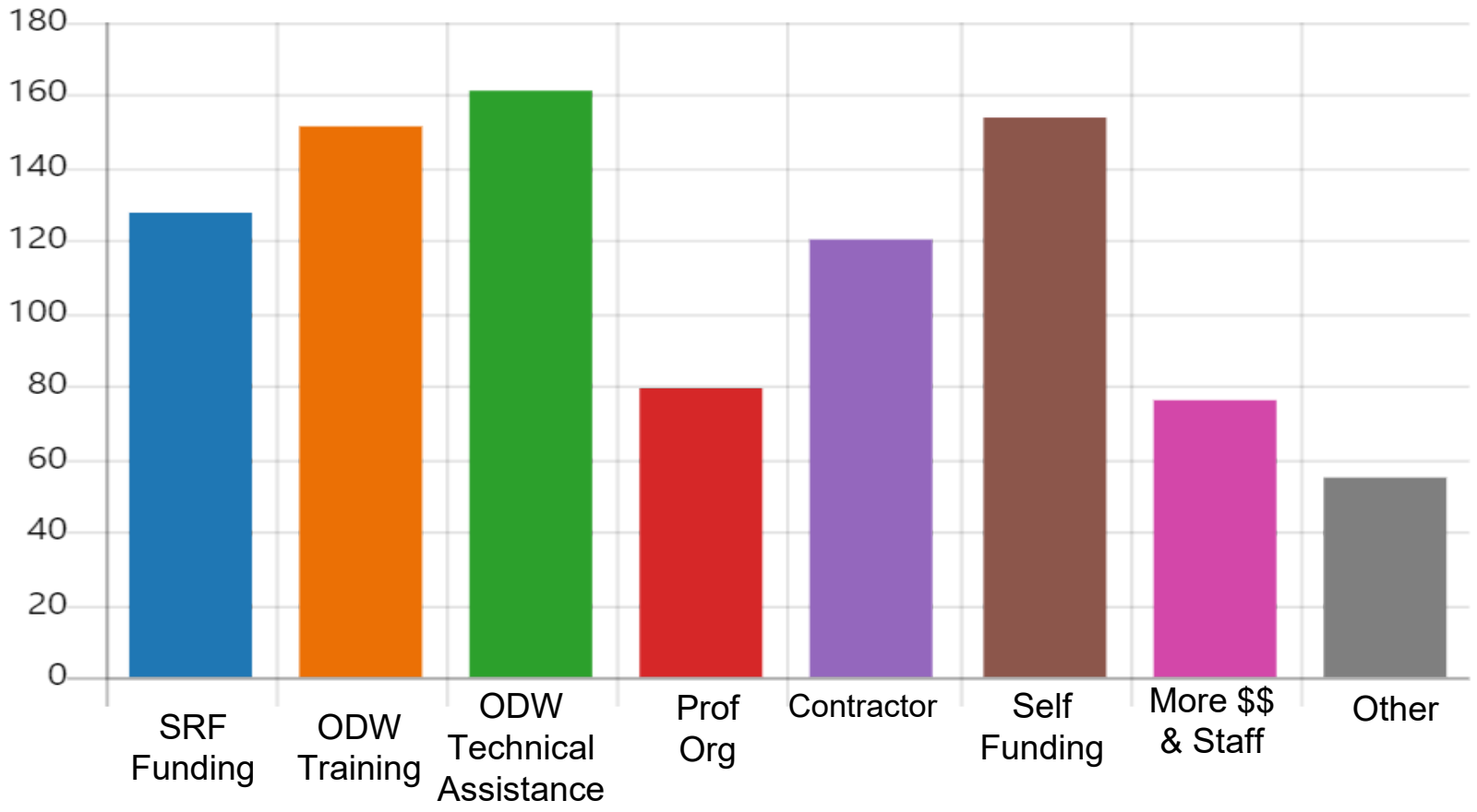
Yes	173
No	170
Don't know	50



If "No" or "Don't Know", when do you plan to start?

Next 3 months	52
Next 6 months	28
Next 12 months	21
Don't know	118

What resources do you need?



* ODW developing training – should be available by June 2023

FEDERAL BUDGET NEWS

- **House Appropriations Subcommittee**
  - On Interior, Environment, and Related Agencies
  - Released FY2024 appropriations bill on July 12, 2023

- **Includes Significant Cuts for EPA, Environmental Funding**
  - As compared to FY2023 amounts (see slides below)
  - *Caveat: Numbers are likely to change during negotiations
  - Senate is holding its budget numbers close to the vest for now

Program	FY24 House Bill	FY23 Enacted Level
Interior-Environment Topline	$25.4 billion	$38.9 billion
EPA Topline	$6.17 billion	$10.1 billion
State and Tribal Assistance Grants (STAG) Topline	$2.58 billion	$4.48 billion
Clean Water State Revolving Fund (CWSRF)*	$535 million	$1.64 billion

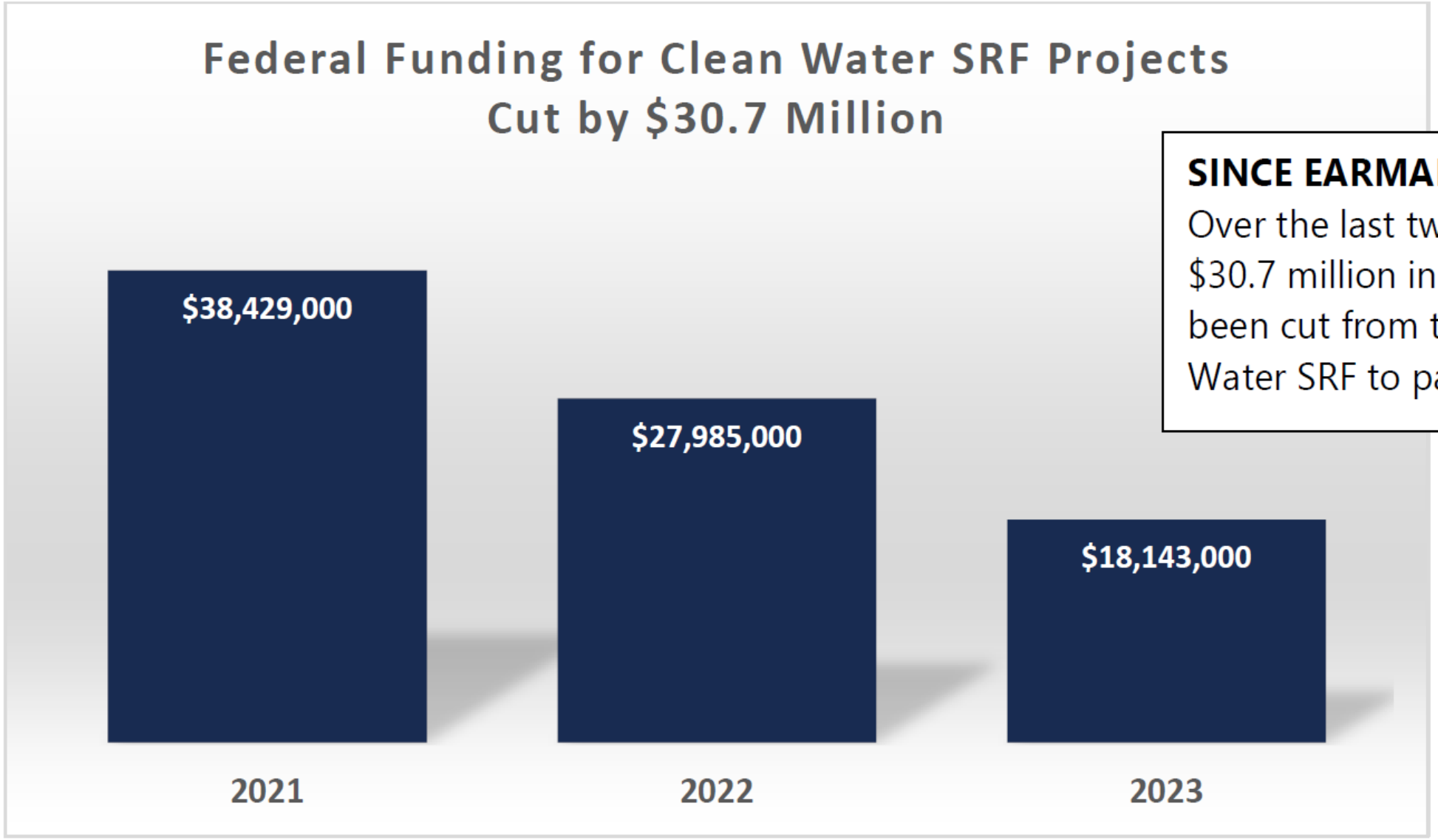
CWSRF Earmarks**	$470.13 million	$863.1 million
Drinking Water State Revolving Fund (DWSRF)	$460.61 million	$1.13 billion
DWSRF Earmarks***	$410.3 million	$609.3 million
Water Infrastructure Finance and Innovation Act (WIFIA) Direct Loan Subsidy	$65.97 million	$68 million
Sewer Overflow and Stormwater Reuse Municipal Grants	$50 million	$50 million

NEGATIVE IMPACTS OF EARMARKS

- **In Past, EPA Took Appropriation for SRF**
  - Divided it among states and territories based on a formula
  - States then decide how to spend funding

- **Starting in 2021, Congress Earmarking Heavily**
  - In 2022, amount increased to 53% of total ($1.47 B of $2.76 B)

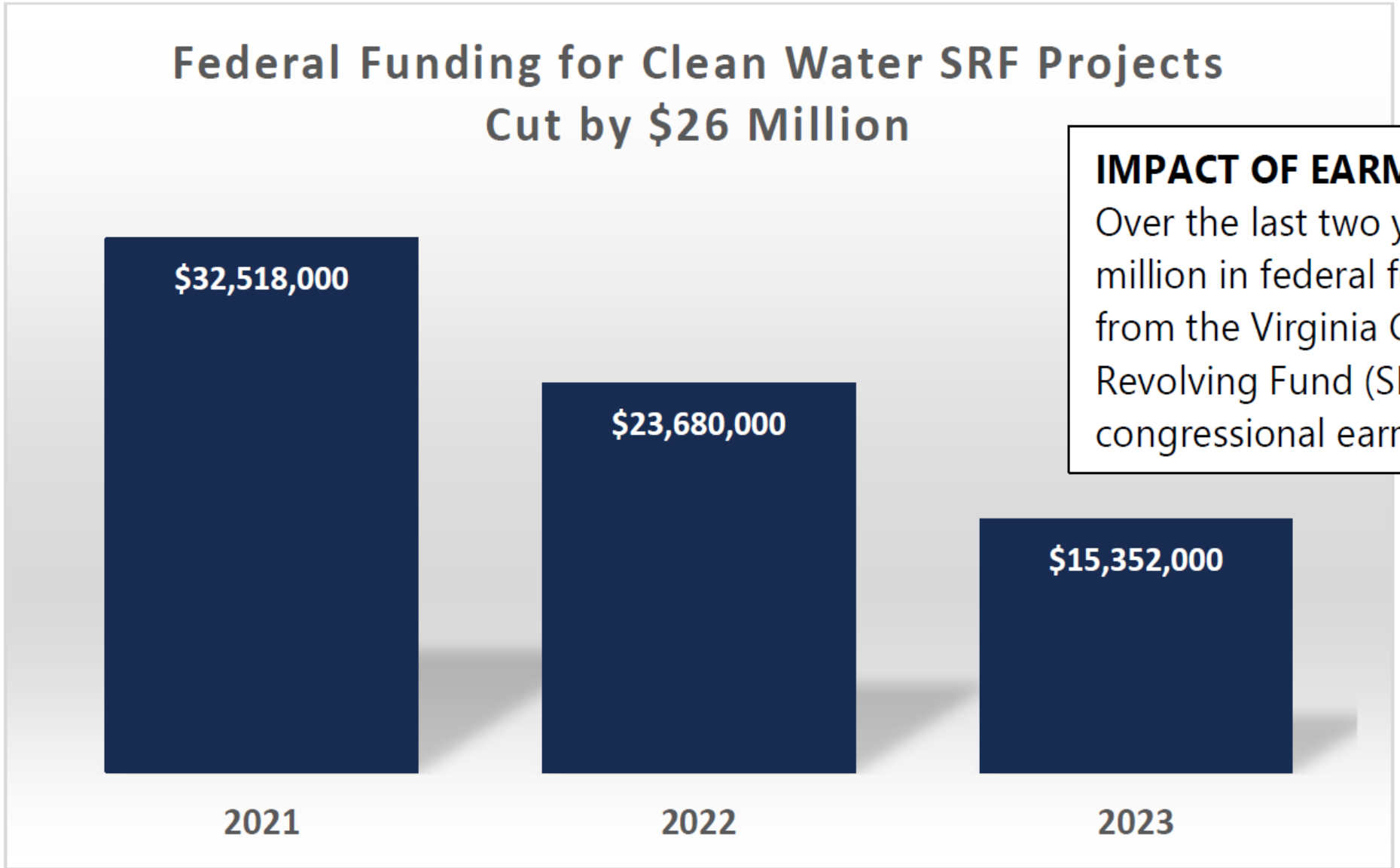
Maryland: Annual Federal Funding for Clean Water Projects



SINCE EARMARKS RETURNED

Over the last two years, more than $30.7 million in federal funding has been cut from the Maryland Clean Water SRF to pay for earmarks.

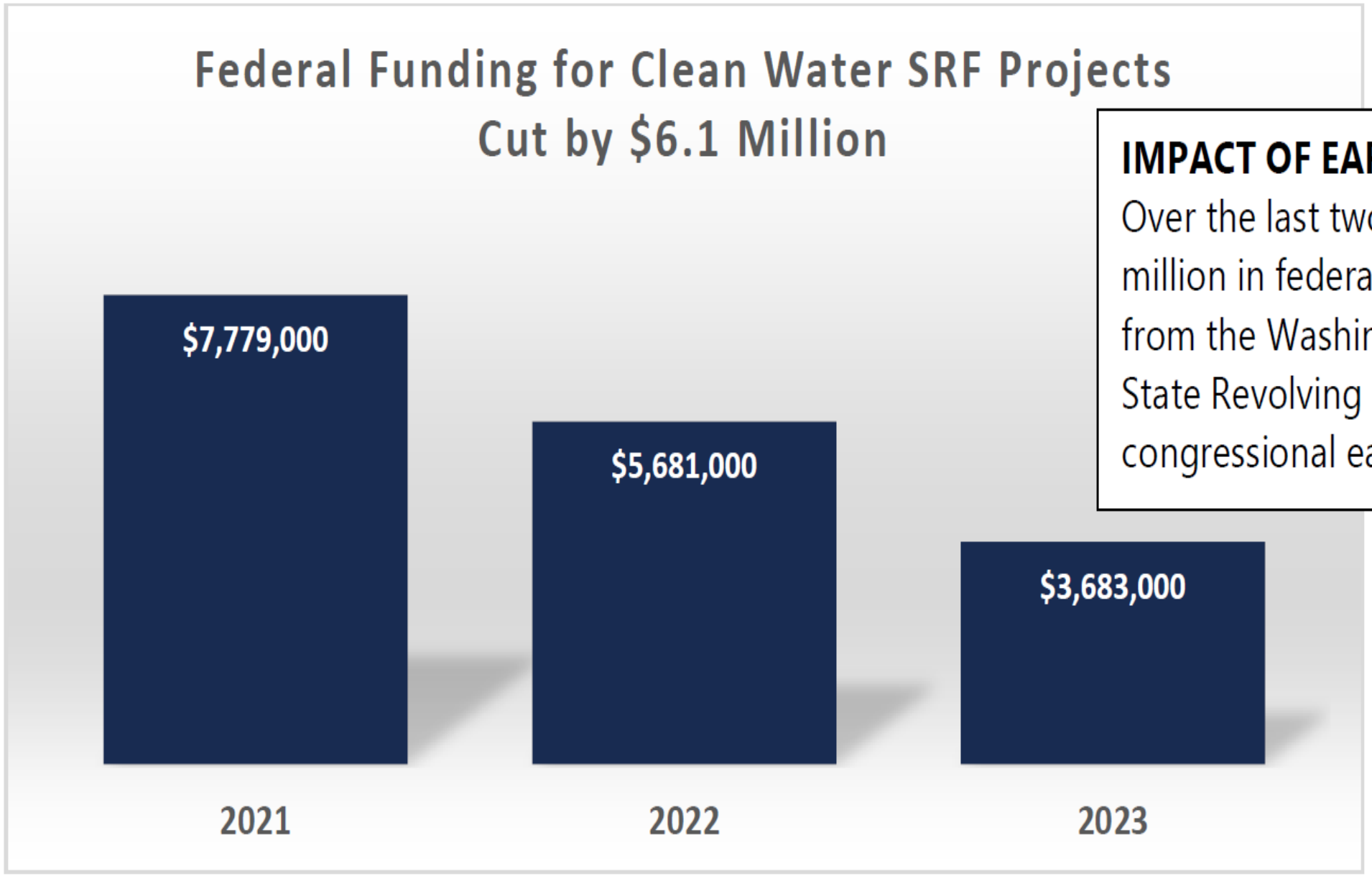
Virginia: Annual Federal Funding for Clean Water Projects



IMPACT OF EARMARKS

Over the last two years, more than $26 million in federal funding has been cut from the Virginia Clean Water State Revolving Fund (SRF) to pay for congressional earmarks.

Washington, D.C: Annual Federal Funding for Clean Water Infrastructure



IMPACT OF EARMARKS

Over the last two years, more than $6.1 million in federal funding has been cut from the Washington, D.C. Clean Water State Revolving Fund (SRF) to pay for congressional earmarks.

POTENTIAL 2024 MARYLAND LEGISLATION

- **Stream Restoration**
  - Long, contentious hearing on HB 942 (Terrasa, Lehman, Ruth)
  - Bill would have severely negatively impacted stream restoration projects
  - MD MS4s rely on stream restoration for permit compliance

- **PFAS Monitoring**
  - For publicly-owned treatment works
  - Introduced and withdrawn by Delegate Love and Senator Elfreth

POTENTIAL 2024 MARYLAND LEGISLATION (CONT.)

- **Drinking Water - Legionella**
  - Introduced with support by Alliance to Prevent Legionnaire's Disease
  - Problematic requirements
    - EX: water supplier must maintain minimum residential level of 0.5 mg/l of chlorine in distribution system

- **Drinking Water – Collection and Reporting of Information**
  - Introduced with support by Center for Water Security and Cooperation
  - Included 55 data points for submittal to MDE by water and wastewater utilities
    - EX: Percentage of water loss attributed to vacant homes in the service area
    - EX: Map and detailed description of service area boundaries
  - MDE would then create Open Water Data Reporting Platform

POTENTIAL 2024 VIRGINIA LEGISLATION

- **Generally**
  - With all General Assembly seats up in Nov. 2023, and massive turnover, too early to guess

- **Water Sector Concepts**
  - Point Source WQIF (ENR) Funding (>$500 M)
  - ARPA Grant Match Flexibility
  - Operator Licensing Improvements

Questions Welcome

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