Storm Clouds Ahead…

Renewal of Ohio EPA Industrial Storm Water NPDES General Permit

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Industrial Storm Water General Permit (SWGP)

Estimated Schedule	Action
August 19, 2021	ESO Notification
August 23, 2021	Virtual ESO Meeting
September 17, 2021	ESO Input Due
December 13, 2021	Draft GP Public Noticed
January 27, 2022	Draft GP Public Hearing
February 3, 2022	Draft GP Comment Period Ends
March 18, 2022	Provide Proposed GP to USEPA
June 1, 2022	OHR000007 Issued/Effective

Draft SWGP

- First impressions

- 4 potential new items
  - ~~USEPA~~ benchmark schedule
  - ~~AIM *~~
  - PAHs ** ~~monitoring~~
  - Annual report ~~submittal~~

* Additional Implementation Measures
** Polycyclic Aromatic Hydrocarbons

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Ohio EPA Storm Water Data

- Dataset since 2012 is significant
- Below benchmark
  - Arsenic, Oil & Grease
- Potential concern
  - Cadmium, Copper, Magnesium, Mercury, Selenium, Silver, Zinc

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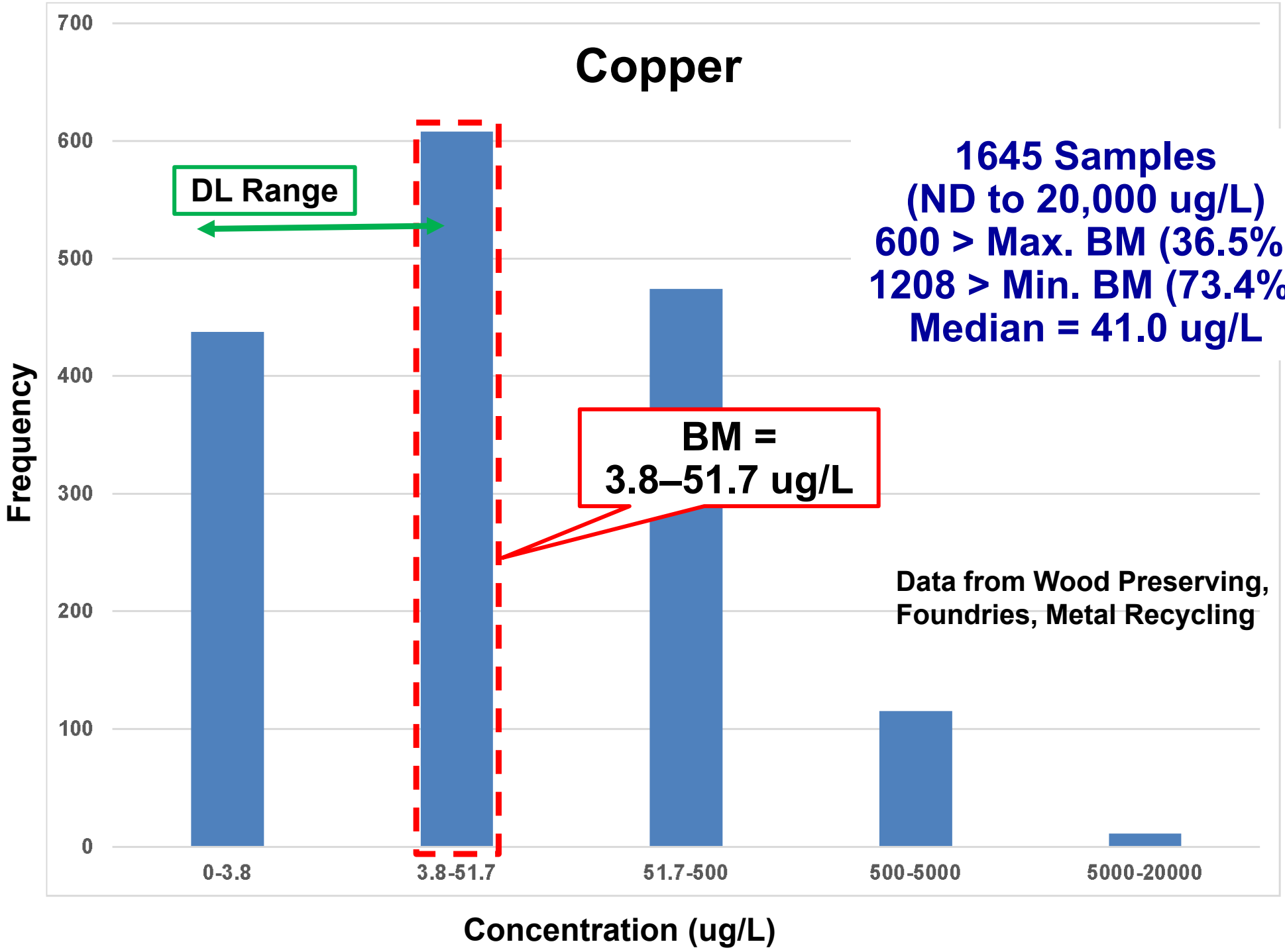
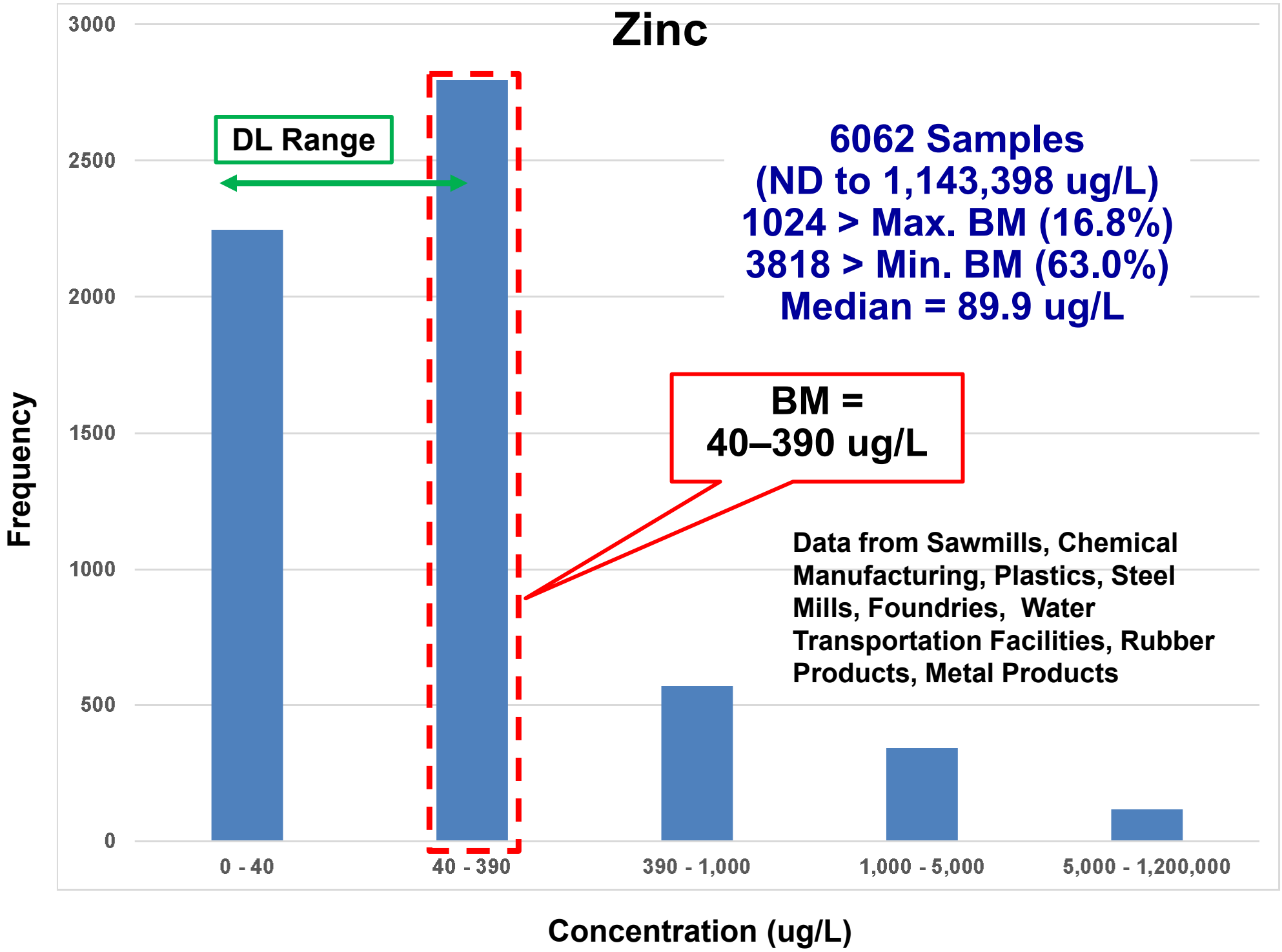
Benchmark Data Summary (January 1, 2012 to December 12, 2021)

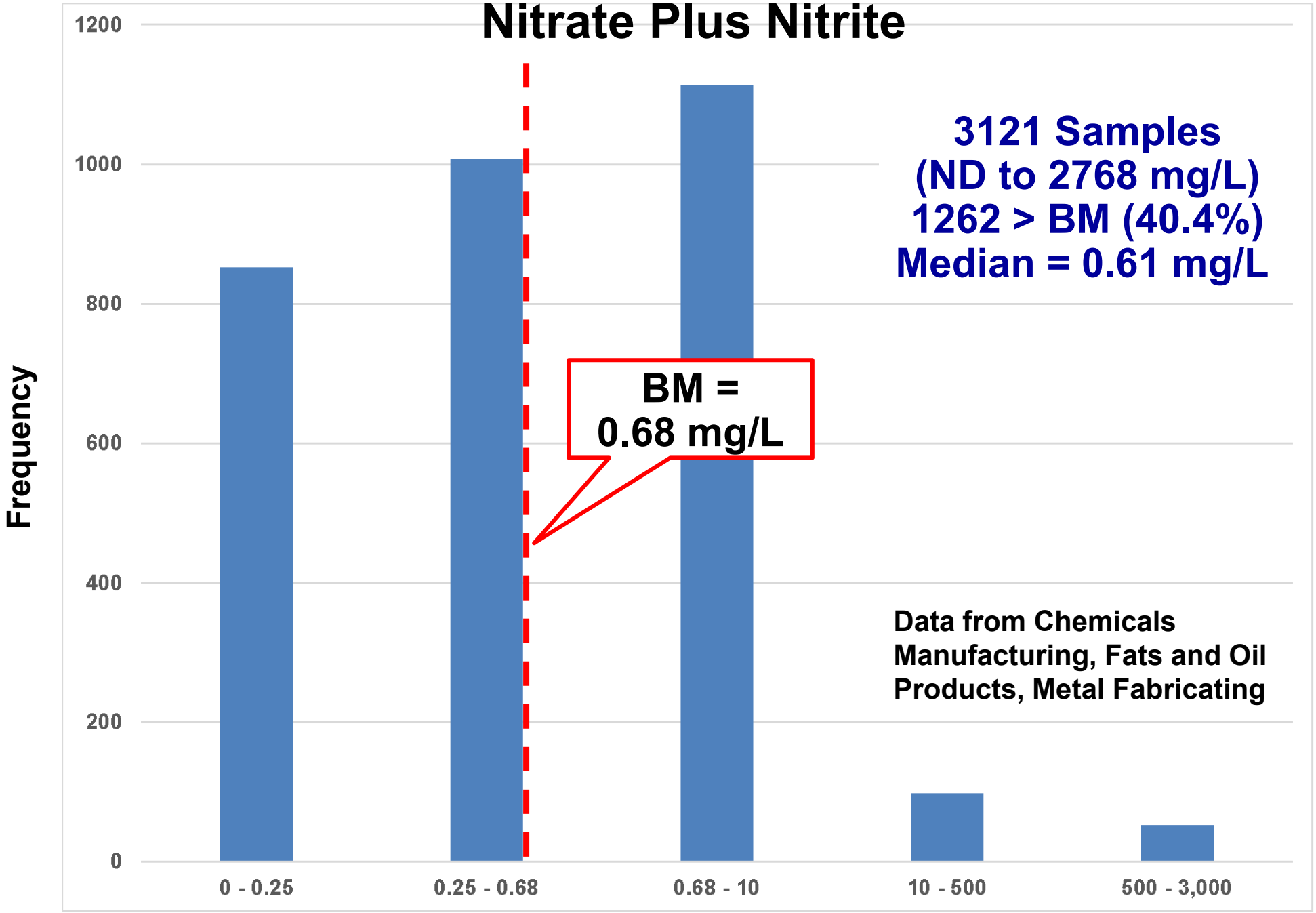
Benchmark Parameter	Units	Total No. Samples	No. Samples < MDL	No. Samples > MDL	Min.	Max.	Median of > MDL	Benchmark Limit
Aluminum	ug/L	5005	587	4418	< 50.0	**490,000**	404.5	750
Arsenic	ug/L	189	140	49	< 1.0	230	6.5	340
BOD5	mg/L	194	29	165	< 2.0	**1400**	15.0	30
Cadmium	ug/L	144	114	30	< 0.5	**19.9**	**1.5**	0.9 to 21.6
COD	mg/L	2057	221	1836	< 10.0	**11,000**	45	120
Copper	ug/L	1645	274	1371	< 1	**20,000**	**41.0**	3.8 to 51.7
Cyanide	mg/L	195	158	37	< 0.010	**0.063**	0.013	0.022
Hardness*	mg/L	5,406	74	5,332	< 30.0	13,480	184.5	NA
Lead	ug/L	2,001	571	1430	< 5.0	**4,470**	19.6	210 to 715
Magnesium	mg/L	148	4	144	**< 0.1**	**81.1**	**9.5**	0.064
Mercury	ug/L	141	121	20	**< 0.2**	**0.303**	**0.11**	0.0017
Nitrate plus Nitrite	mg/L	3,121	300	2821	< 0.1	**2768.0**	0.61	0.68
Nitrogen, Ammonia	mg/L	216	78	138	< 0.2	**11,000**	0.34	3.1
Oil and Grease	mg/L	151	41	110	< 5.0	13.5	5.0	15.0
pH	S.U.	606	-	606	**4.0**	**12.0**	7.6	6.5 to 9.0
Phosphorus	mg/L	162	20	142	< 0.1	**23.0**	0.60	2.0
Selenium	ug/L	143	130	13	< 5.0	**24.5**	**5.0**	5
Silver	ug/L	143	129	14	< 0.02	**22.7**	**2.0**	0.1 to 17.3
TSS	mg/L	9,111	474	8,637	< 5	**28,300**	10.0	100
Zinc	ug/L	6,062	457	5,605	< 10	**1,143,398**	**89.9**	40 to 390

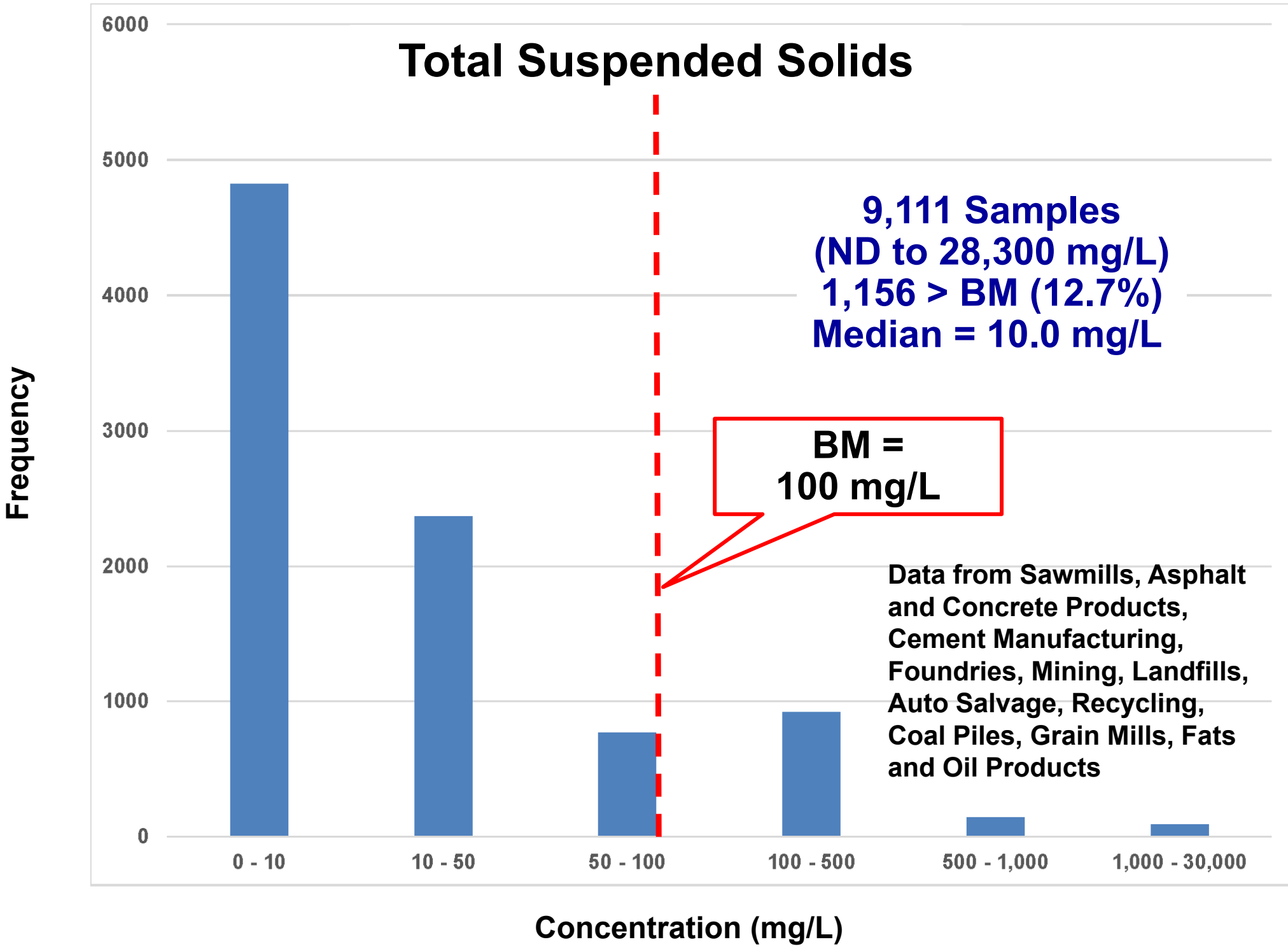
Bold = Exceeds Benchmark (or lowest Benchmark Value if Benchmark is a Range based on Hardness)

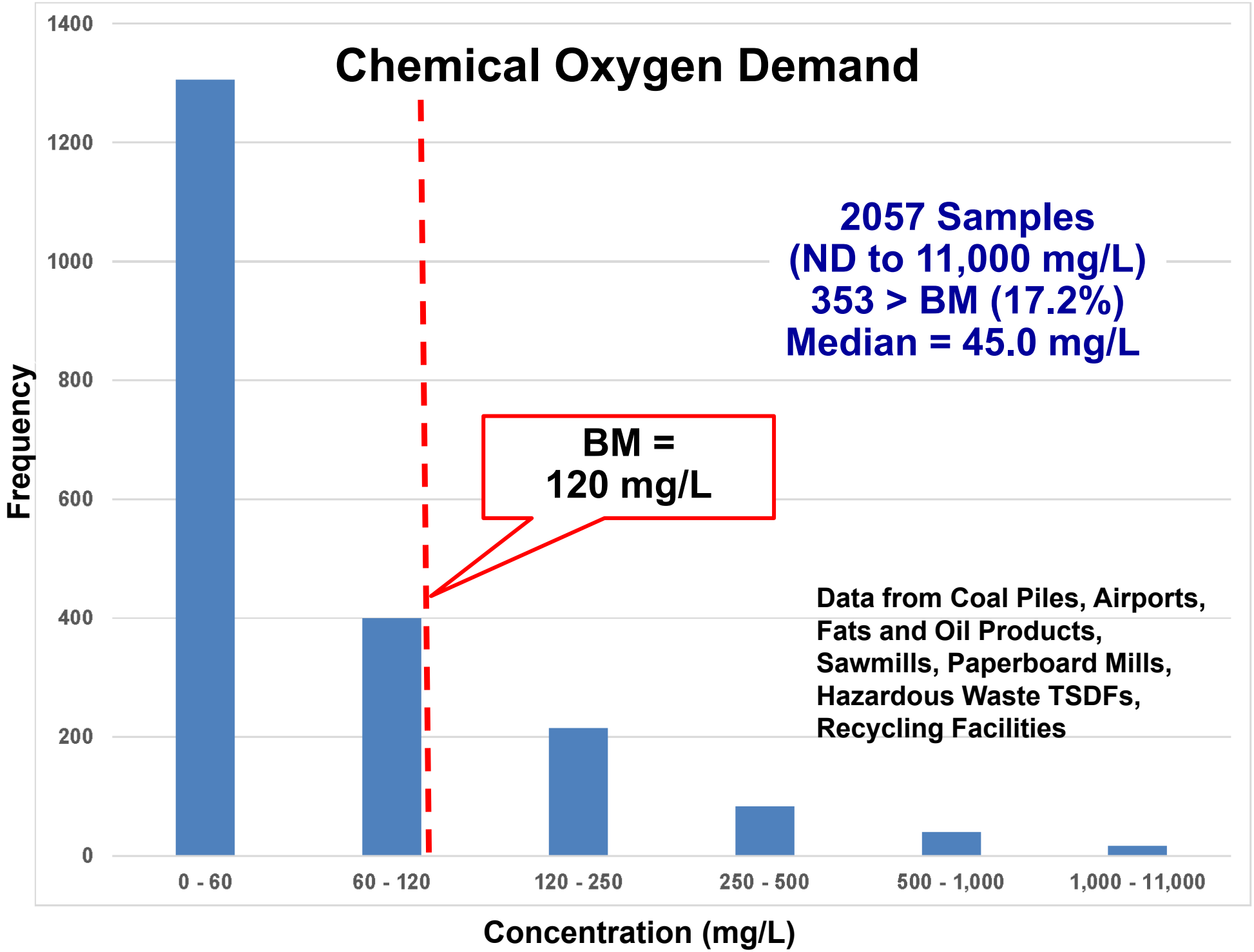
*** Harness Range in Ohio Streams = 10 to 400 mg/L per ORSANCO Data 2000-2018**

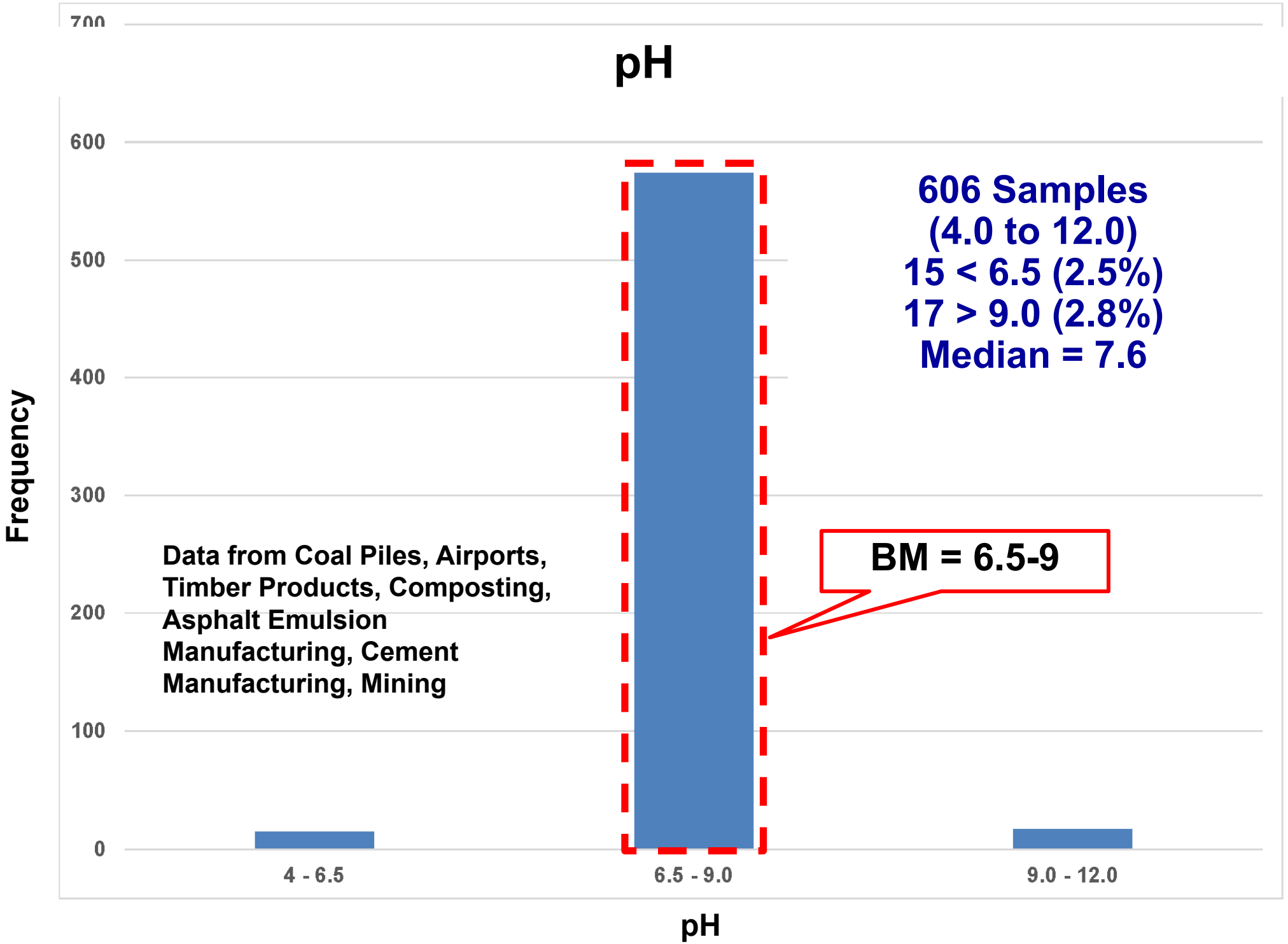

Copper
700
600
500
400
300
200
100
0
Frequency
DL Range
BM =
3.8–51.7 ug/L
1645 Samples
(ND to 20,000 ug/L)
600 > Max. BM (36.5%)
1208 > Min. BM (73.4%)
Median = 41.0 ug/L
Data from Wood Preserving,
Foundries, Metal Recycling
0-3.8
3.8-51.7
51.7-500
500-5000
5000-20000
Concentration (ug/L)


Zinc
DL Range
6062 Samples
(ND to 1,143,398 ug/L)
1024 > Max. BM (16.8%)
3818 > Min. BM (63.0%)
Median = 89.9 ug/L
BM =
40–390 ug/L
Data from Sawmills, Chemical Manufacturing, Plastics, Steel Mills, Foundries, Water Transportation Facilities, Rubber Products, Metal Products
Frequency
3000
2500
2000
1500
1000
500
0
0 - 40
40 - 390
390 - 1,000
1,000 - 5,000
5,000 - 1,200,000
Concentration (ug/L)


Nitrate Plus Nitrite
1200
1000
800
600
400
200
0
Frequency
3121 Samples
(ND to 2768 mg/L)
1262 > BM (40.4%)
Median = 0.61 mg/L
BM =
0.68 mg/L
Data from Chemicals
Manufacturing, Fats and Oil
Products, Metal Fabricating
0 - 0.25
0.25 - 0.68
0.68 - 10
10 - 500
500 - 3,000
Concentration (mg/L)


Total Suspended Solids
9,111 Samples
(ND to 28,300 mg/L)
1,156 > BM (12.7%)
Median = 10.0 mg/L
BM =
100 mg/L
Data from Sawmills, Asphalt and Concrete Products, Cement Manufacturing, Foundries, Mining, Landfills, Auto Salvage, Recycling, Coal Piles, Grain Mills, Fats and Oil Products
Frequency
6000
5000
4000
3000
2000
1000
0
0 - 10
10 - 50
50 - 100
100 - 500
500 - 1,000
1,000 - 30,000
Concentration (mg/L)


Chemical Oxygen Demand
2057 Samples
(ND to 11,000 mg/L)
353 > BM (17.2%)
Median = 45.0 mg/L
BM =
120 mg/L
Data from Coal Piles, Airports,
Fats and Oil Products,
Sawmills, Paperboard Mills,
Hazardous Waste TSDFs,
Recycling Facilities
Frequency
1400
1200
1000
800
600
400
200
0
0 - 60
60 - 120
120 - 250
250 - 500
500 - 1,000
1,000 - 11,000
Concentration (mg/L)


pH
700
600
500
400
300
200
100
0
Frequency
606 Samples
(4.0 to 12.0)
15 < 6.5 (2.5%)
17 > 9.0 (2.8%)
Median = 7.6
Data from Coal Piles, Airports, Timber Products, Composting, Asphalt Emulsion Manufacturing, Cement Manufacturing, Mining
BM = 6.5-9
4 - 6.5
6.5 - 9.0
9.0 - 12.0
pH

NEW SWGP Items

- Ohio industrial trade associations were engaged in Early Stakeholder Outreach (ESO)
- Good result of draft SWGP being similar to existing SWGP, with 1 addition to benchmark monitoring

Benchmark Monitoring

- Years 1 & 2 – Collect 4 samples
  - Compare average to benchmark
- If average exceeds benchmark
  - Years 3 & 4 - Another 4 samples

    OR
  - No further pollutant reduction determination (technological & economical basis)

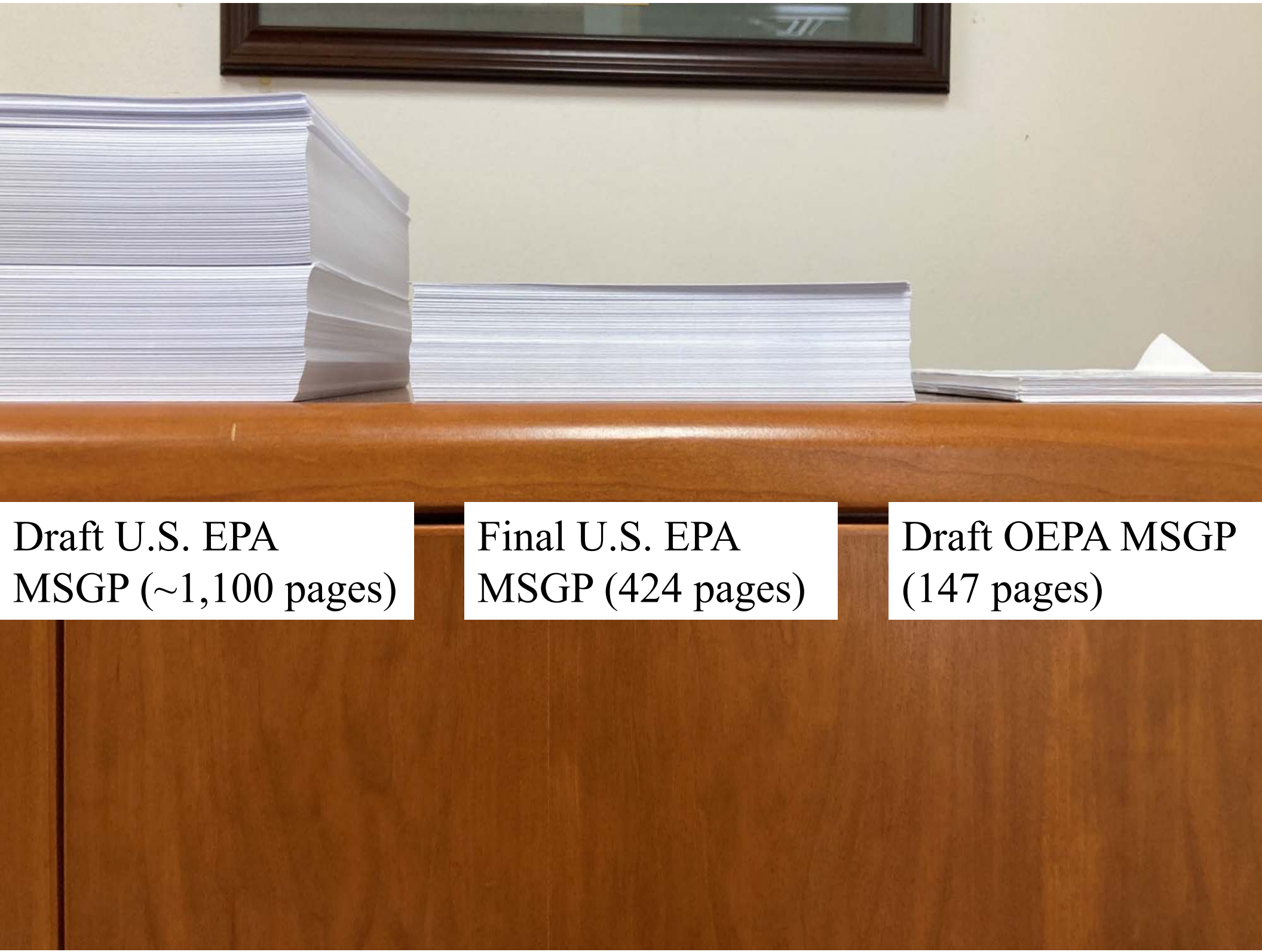
PAHs **

- Coal-tar sealcoat not used in Ohio
- Question 5 in Annual Reporting Form (Appendix I)
  - Coal-tar sealcoat use (Yes/No)?
  - Substitutes listed - asphalt emulsion sealants, acrylic sealants

** Polycyclic Aromatic Hydrocarbons

Living With This SWGP

- Dealt with storm water management since 5th-generation permit (OHR000005)
- Existing permit relatively painless to comply with


Draft U.S. EPA MSGP (~1,100 pages)
Final U.S. EPA MSGP (424 pages)
Draft OEPA MSGP (147 pages)

Living With This SWGP

- Benchmark monitoring timeline
  - Reduced flexibility, but not unmanageable
  - Other requirements unchanged
- Corrective actions remain an INDUSTRY decision

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Living With This SWGP

- Ohio EPA opts to work with regulated community
- New permit should be workable

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Living With This SWGP

- Renew early
  - 90 days for existing permittees
  - 180 days for new permittees
  - As of effective permit date, NOT on getting Ohio EPA notice

- New NPDES General Permit Transfer application for new owners (Appendix L)

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Living With This SWGP

- Attempt to take benchmark samples during first 4 quarters
- Evaluate if alternative benchmark standards can be utilized
- Consider run-on & pollutants from non-industrial sources (e.g., building structures)

Time to Reset the Clock

- Apply for coverage (NOI) under new permit, likely in May
- Update your SWPPP
- Review existing data for problems
  - Benchmark exceedances
  - Housekeeping & training issues
  - Additional outfalls

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Time to Reset the Clock

- Routine facility inspections
  - At least quarterly
  - Also recommended during quarterly visual assessments
- Continue BMP maintenance, housekeeping, quarterly visual assessments, annual reports

Time to Reset the Clock

- Perform & document annual employee training

- Benchmark monitoring reporting
  - eDMR report within 30 days of receipt of lab report
  - Ensure correct units (ug/l or mg/l)
  - If Non-Detect, report as "AA" along with lab detection limit

Time to Reset the Clock

- Plan to collect all 4 benchmark samples starting 3rd Quarter 2022
- Recommend completing benchmark monitoring in the first 4 quarters
  - Include snow melt samples next winter

2021 USEPA MSGP

- 3/1/2021 – 2/28/2026
- Driven by:
  - 2016 "Sue-and-Settle"
    (Waterkeeper Alliance v. USEPA)
  - 2019 NAS study
    ("Improving the EPA Multi-Sector General Permit for Industrial Stormwater Discharges")

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Sue-and-Settle, Part 2 ?

- July 1, 2021 lawsuit over 2021 USEPA MSGP
- Center for Biological Diversity v. USEPA, et. al.
- 9th Circuit Court of Appeals (SF)

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Sue-and-Settle, Part 2 ?

- Lawsuit goals
  - "War on Plastics" through MSGP
  - Compel implementation of plaintiff's June 1, 2020 MSGP joint comment letter (103 signatories)
- Another NAS storm water study?

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Future MSGP Issues?

- Escalation of PAHs issue
- Addition of non-industrial sites
- Universal benchmarks
- Expansion of benchmarks (PFAS)

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Future MSGP Issues?

- Expansion of AIM
- NELs, TMDLs, WQBELs
- Plastics "Zero Discharge"
- Storm water TMDLs
  - Benchmark or NEL (CA SWGP)

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The Future

- The NEXT "Asbestos"…
  - Ubiquitous
  - Low detection levels
  - "Cast a wide net" for lawsuits
  - "Scary" name

- Potential targets
  - PFAS ("Forever Chemicals")
  - "Microplastics" (< 5 mm)

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The Future

- Monitoring, corrective action & treatment…OH MY!
  - More stringent benchmarks
  - Return of AIM?
  - On-site treatment

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But Wait, There's More…

- Confusing regulations
- Permit violations
- Capital & recurring expenditures

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The Future

- Plan on additional monitoring, lower benchmarks & more prescriptive corrective actions (AIM)
- Consider stormwater compliance when planning facility expansions (existing & new)

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The Future

- Benchmarks may become effluent limits
- Address compliance problems **NOW** so they do not become a future enforcement action

Wishlist for Future SWGPs

- Don't mess with **SUCCESS!**
- Maintain BMP approach
- Benchmark monitoring off-ramps
  - Inspection-only option for "Low-Risk" facilities
  - Reduced monitoring frequency

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Wishlist for Future SWGPs

- Define "Low-Risk" facilities for more streamlined compliance
  - Reduced inspection frequency
  - Reduced benchmark monitoring
- Credit for progress in meeting benchmarks, rather than "hitting-the-benchmark"

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Wishlist for Future SWGPs

- Hybrid "Exposed Only" approach
  - "No Exposure Certification (NEC)" is **All-or-Nothing**
  - Apply NEC criteria to exclude "non-exposed" area(s)
  - Other "exposed" areas continue regular compliance
  - Focus on where storm water pollution is actually happening

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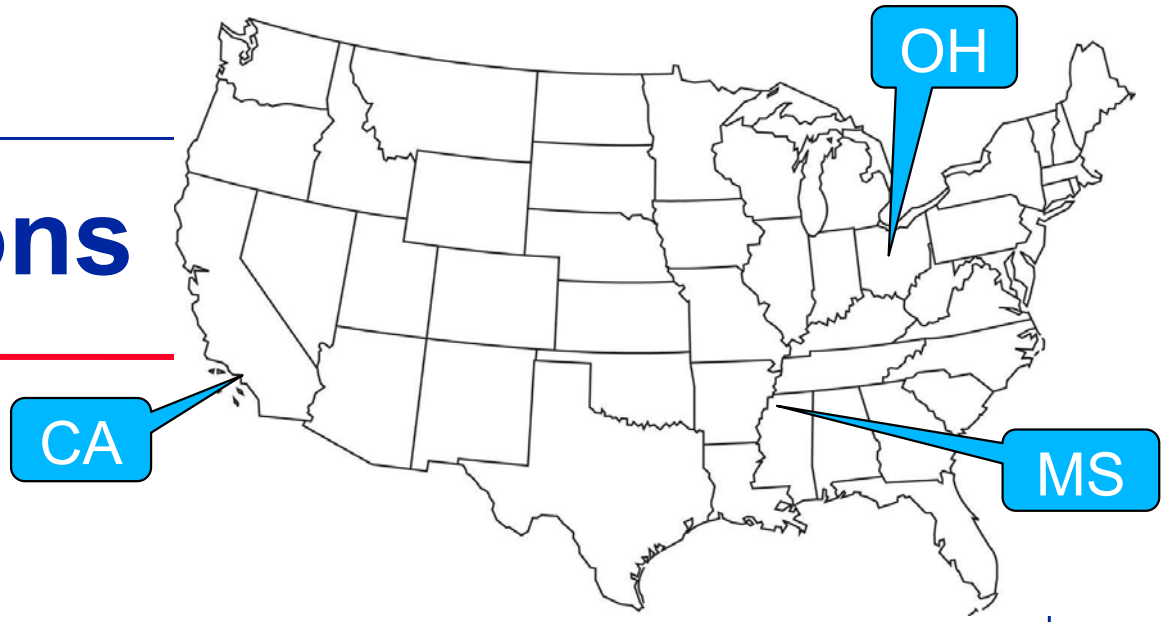
3 States/Regions



- 10–20 years experience
- Sites in:
  - Ohio/Midwest
  - Mississippi/South
  - California/West

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3 States, 3 Different SWGPs

	OH 2011 "MSGP-Lite"	CA 2011 "Bad & Ugly"	MS "1990s MSGP"
Sector BMs	Yes	Yes	No
Universal BMs	No	Yes	No
SW TMDLs	No	Yes	No
Corrective Levels ("AIM")	No	Yes (2 Levels)	No
Oversight	State & Local	Citizen Lawsuits	State
Effectiveness	Good	Legal Jeopardy	Good

"Make America California Again"

- **Inadequate BMPs, SWPPPs, sampling & documentation, late submittals**
  - Orange County Coastkeeper v. Aluminum Precision ($258,000)
  - San Diego Coastkeeper v. Paloma Transfer Station ($105,000)
  - Los Angeles Waterkeeper v. Aerodynamics Plating Co. ($68,000)
  - San Diego Coastkeeper v. Republic Services & Tayman Industries ($90,000)

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Final Thoughts

- Plan for OHR000007 in 2022
  - Can live with draft SWGP
  - Workable provisions intact
  - 4 benchmark samples + option for 4 additional samples
- New USEPA MSGP elements BAD
- Keep California OUT of Ohio! *

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Final Thoughts

- Pandora's box has been opened
- Expect to see new U.S. EPA MSGP additions debated in future Ohio permits

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Burning Questions

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CENTER for BIOLOGICAL DIVERSITY *Because life is good.*

For Immediate Release, July 1, 2021

Contact: Julie Teel Simmonds, (619) 990-2999, jteelsimmonds@biologicaldiversity.org

Lawsuit Challenges Federal Industrial Stormwater Permit's Failure to Control U.S. Plastic Pollution, Protect Endangered Species

SAN FRANCISCO— The Center for Biological Diversity sued the Environmental Protection Agency and federal wildlife agencies today over their approval of a Clean Water Act general permit covering stormwater discharges for thousands of industrial facilities across the country.

Today's lawsuit faults the federal permit's failure to protect the aquatic environment, public health, endangered and threatened species, and critical habitat from plastic and other forms of pollution discharged through industrial stormwater.

"This permit lets industrial polluters keep releasing plastic and other pollutants into our waterways," said Julie Teel Simmonds, an attorney in the Center's Oceans program. "Rather that protecting wildlife and public health, the EPA just copied and pasted from its 2015 permit and ignored our recommendations. We're suing to force federal officials to consider mounting evidence that plastics facilities harm essential habitats and frontline communities."

The permit covers stormwater discharges to U.S. waters from industrial facilities in 30 categories, including chemical and allied products manufacturing, rubber and miscellaneous plastic products, and many others.

Plastic production, transport and use in industrial facilities results in the loss of trillions of plastic pellets to the environment every year. These plastic pellets are often spilled in outdoor areas, picked up in stormwater runoff and discharged to surface waters. Once in the environment, plastic pellets are persistent and can be transported long distances from their source in flowing surface waters such as streams, rivers and oceans.

This plastic is ingested by fish, sea turtles, birds and marine mammals and becomes embedded in sediments and plant matter. It also introduces toxic plastic additives to the environment, such as Bisphenol-A and nonylphenol, and accumulates other toxic chemicals on pellet surfaces, such as PCBs and dioxin, which end up in the aquatic food chain.

Among the several hundred species covered by the federal permit are numerous threatened and endangered whales, sea turtles, birds and fish.

Tough controls are urgently needed in light of the current boom in U.S. plastic production, the Center says. According to the American Chemistry Council, the plastics and chemical industry is investing more than $209 billion in the United States for an estimated 349 projects, including new facilities and expansions. The facilities are designed to convert an oversupply of fracked gas into petrochemical and plastic products. These new plastics are used to manufacture a variety of products, with single-use items accounting for approximately 40% of plastic use.

Today's lawsuit was filed by the Center for Biological Diversity in the Ninth Circuit Court of Appeals in San Francisco.

The Center for Biological Diversity is a national, nonprofit conservation organization with more than 1.7 million members and online activists dedicated to the protection of endangered species and wild places.

Biographical Information

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Mr. Ling is the Corporate Environmental Director for PLASKOLITE, LLC., a Columbus-based manufacturer of continuously processed plastic sheet. Mr. Ling is responsible for PLASKOLITE's environmental compliance at its 11 manufacturing facilities in Ohio, California, Texas, Mississippi, Tennessee, North Carolina, New Jersey, Massachusetts and Mexico. He has over 31 years of experience in environmental engineering, both as a consultant to businesses, and now in a corporate-level environmental role. He has spoken and written on a wide range of environmental and energy management topics.

Mr. Ling graduated at the top of his class with a Bachelor of Science degree in Civil Engineering from the Florida Institute of Technology (1989). He also holds a Master of Science degree in Civil Engineering from the University of Notre Dame (1991). He is a Registered Professional Engineer in the states of Ohio and Florida, and a Qualified Industrial Storm Water Practitioner (QISP) in the state of California.

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Mr. Croxton is an Environmental Manager at PLASKOLITE, LLC., a plastic sheet manufacturer founded in Columbus, Ohio. He has over five years of experience overseeing environmental compliance, including the implementation of the NPDES Multi-Sector General Permit, at Plaskolite's two Ohio plants in Columbus and Zanesville.

Mr. Croxton graduated from The Ohio State University in 2016, receiving a Bachelor of Science degree in Environmental Science.

R. Curt Spence, P.E., President
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Mr. Spence is the President of Spence Environmental Consulting, Inc. located in Pickerington, Ohio. Spence Environmental Consulting, Inc. was founded in 1995 and provides a wide range of environmental consulting services including compliance, due diligence, BUSTR corrective action, RCRA closure, remedial design and geotechnical engineering services. Mr. Spence has participated as member of the industry coalition that has negotiated the terms and conditions of the current and prior industrial NPDES storm water general permits with the Ohio EPA. He has recently published articles in Ohio trade association newsletters, performed seminars and provided training on industrial storm water compliance in Ohio. Mr. Spence has also authored numerous storm water pollution prevention plans for industrial sites in Ohio.

Mr. Spence holds a Bachelor of Science degree in Civil Engineering from the University of Cincinnati (1987) and a Master of Science degree in Civil and Environmental Engineering from the University of Cincinnati (1989). He is a registered professional engineer in Ohio.