The Strategies and Challenges of Implementing an Industrial Stormwater Compliance Program for Multiple Facilities

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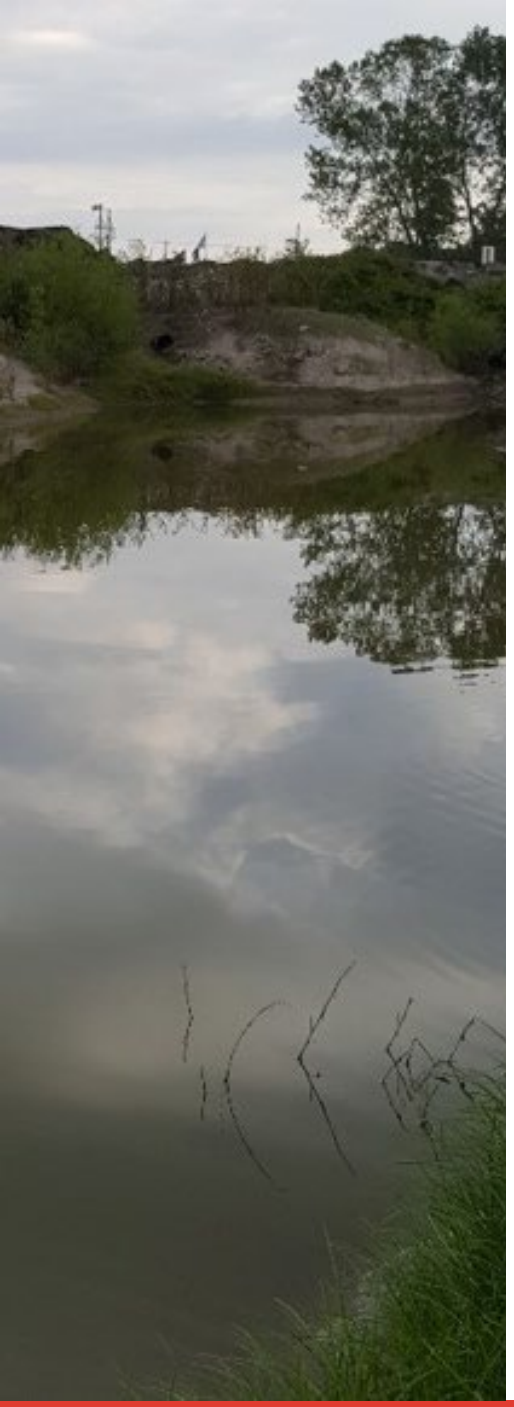


Overview

- Regulatory Overview for Industrial Stormwater
- MSPG Requirements
- MSGP Compliance Challenges and Strategies

Cuyahoga River Fire

Background

1

Clean Water Act

Went into effect in 1972.

2

Section 402

Authorizes the NPDES permits program:

- General permits
- Individual permits

3

NPDES General Permits

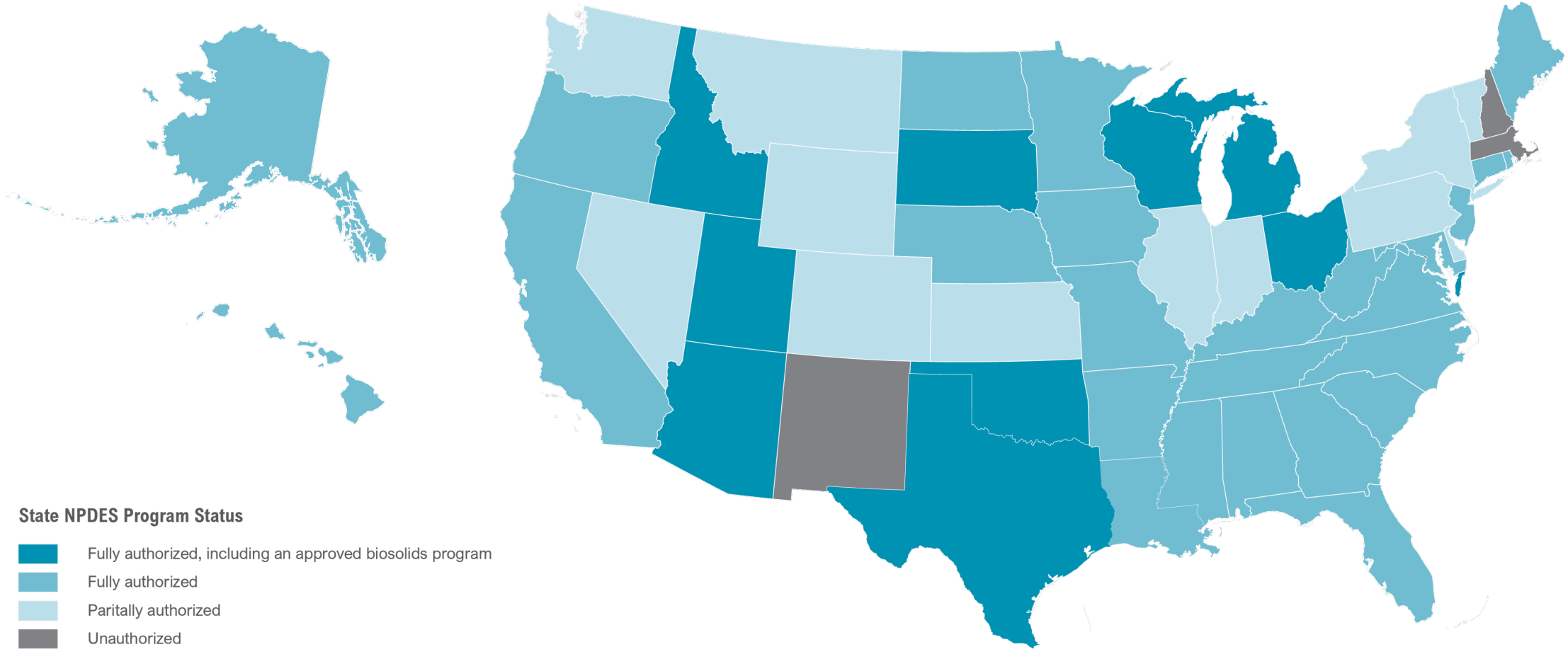
Stormwater and wastewater:

- Construction
- MSGP *(first issued 1995)*
- Municipal
- Wastewater *(general)*
- Individual

Concepts to Remember

- Stormwater is not treated prior to entering a waterbody
- Section 401 of the Clean Water Act regulates water quality
- Section 402 of the Clean Water Act regulates permits to discharge stormwaters

Who Issues Your Permit?



Differences Between State Permits

- Format of permit document
- Permit application procedures
- “Vocabulary”
- SWPPP content
- Inspection procedures
- Monitoring requirements
- Reporting requirements

Obtaining, Modifying, and Terminating MSGP Coverage

- Notice of Intent (NOI) – written notification to the regulating agency from an applicant requesting coverage under the permit.

- Notice of Change (NOC) or Change NOI – written notification to the regulating agency providing changes to information that was previously submitted in a NOI or no-exposure certification.

- Notice of Termination (NOT) – written notification to the regulating agency from an authorized discharger requesting termination of permit coverage.

Goals of the SWPPP

- Establish a Pollution Prevention Team (PPT)
- Identify actual and potential pollutant sources
- Describe BMPs to reduce pollution in stormwater
- Establish procedures to evaluate and continuously improve the SWPPP and program

Accountability – Pollution Prevention Team

Allowable Non-Stormwater Discharges

- Emergency / Unplanned Fire Fighting Activities
- Fire hydrant flushing
- Potable water, including uncontaminated water line flushing
- Uncontaminated condensate
- Uncontaminated irrigation / landscape drainage
- Uncontaminated pavement, equipment or external building wash waters
- Uncontaminated ground water or spring water
- Incidental windblown mist from cooling towers


COMPLIANCE:
BEST MANAGEMENT
PRACTICES

5 Non-Structural BMPs
Quality Stormwater Program

Train

Inspect

Monitor

Record

Report

5 Elements of a Quality Stormwater Program

Train

Employee Training

Those employees not directly responsible for maintaining or implementing activities related to compliance with the MSGP and the SWPPP

Those employees who implement activities necessary to comply with the MSGP and the SWPPP

Training Content

- Proper material management and handling practices for specific chemicals, fluids, and other materials used or encountered
- Spill prevention methods
- Location of materials and equipment necessary for spill clean up
- Spill clean-up techniques
- Proper spill reporting procedures
- Familiarization with good housekeeping measures, BMPs, and goals of SWPPP

5 Elements of a Quality Stormwater Program

Inspect

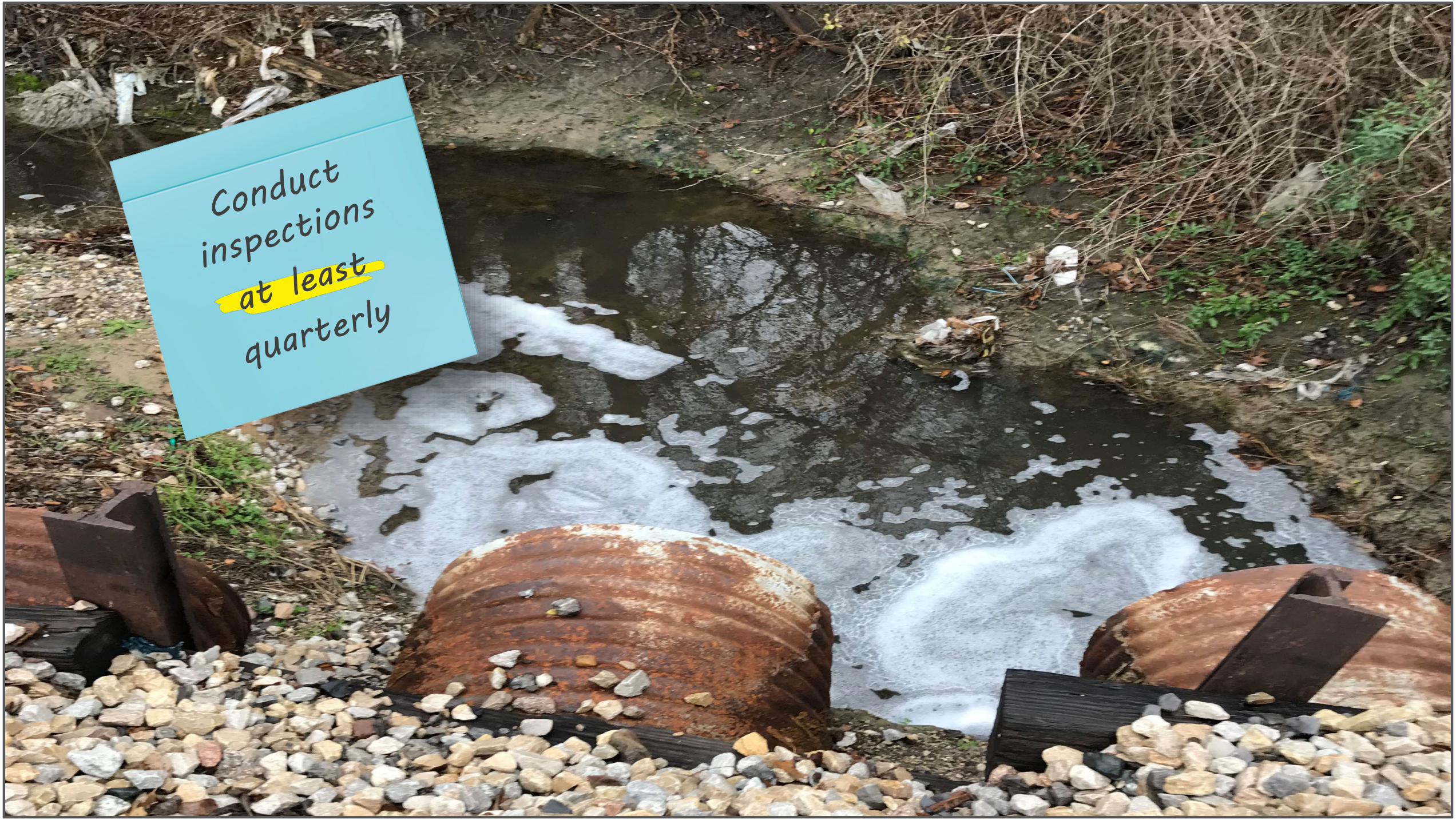
Inspection Requirements

Inspector must be “qualified”

Conducted by or with a P2 Team member

Record the inspection, corrective actions, and follow up

Keep records for 3 years


Conduct inspections at least quarterly

It is not always a violation to see a problem.

It is a violation to not correct it!

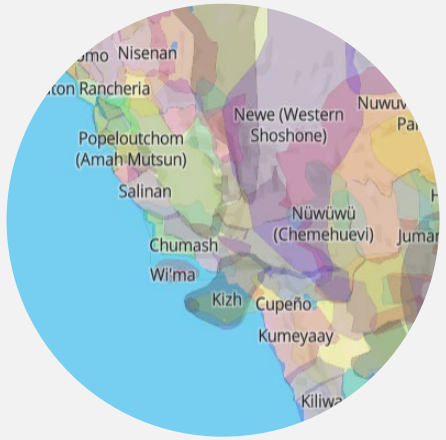
5 Elements of a Quality Stormwater Program

Monitor

Common Monitoring Requirements

- Visual monitoring
- Benchmark monitoring
- Numeric Effluent Limitation (NEL) monitoring

Monitoring Requirements



Quarterly Visual: Collect once each quarter

Benchmark Monitoring: Semi-Annual – Collect twice a year

Hazardous Metals Monitoring Collect once a year

Monitoring Requirements

NEL Sampling (Annual Metals Monitoring)
Year _____

Parameter	Maximum Concentration (mg/L)	Sample Collection Date	Outfall 001 (mg/L)	Comments
Arsenic	0.3			
Barium	4.0			
Cadmium	0.2			
Chromium	5.0			
Copper	2.0			
Lead	1.5			
Manganese	3.0			
Mercury	0.01			
Nickel	3.0			
Selenium	0.2			
Silver	0.2			
Zinc	6.0			

Semi-Annual Benchmark Sampling
Year _____

Parameter	Benchmark Level (mg/L)	Sample Collection Date	Outfall 001 (mg/L) (Jan-June)	Outfall 001 (mg/L) (July-Dec)	Annual Average
Copper, total	0.3				
Aluminum, total	4.0				
Iron, total	0.2				
Lead, total	5.0				
Zinc, total	2.0				
Total Suspended Solids (TSS)	1.5				
Chemical Oxygen Demand (COD)	3.0				

5 Elements of a Quality Stormwater Program

Record

Common Records

- Rain gauge (representative monitoring station)
- Log of Spills and Leaks
- Preventive Maintenance
- Inspections (and corrective actions)
- Training
- Reporting (DMRs, Active Status, Signatory Authority, NOI, NOC, etc.)
- Monitoring (quarterly visual, benchmark, hazardous metals, etc.)

Recordkeeping Requirements

3
years

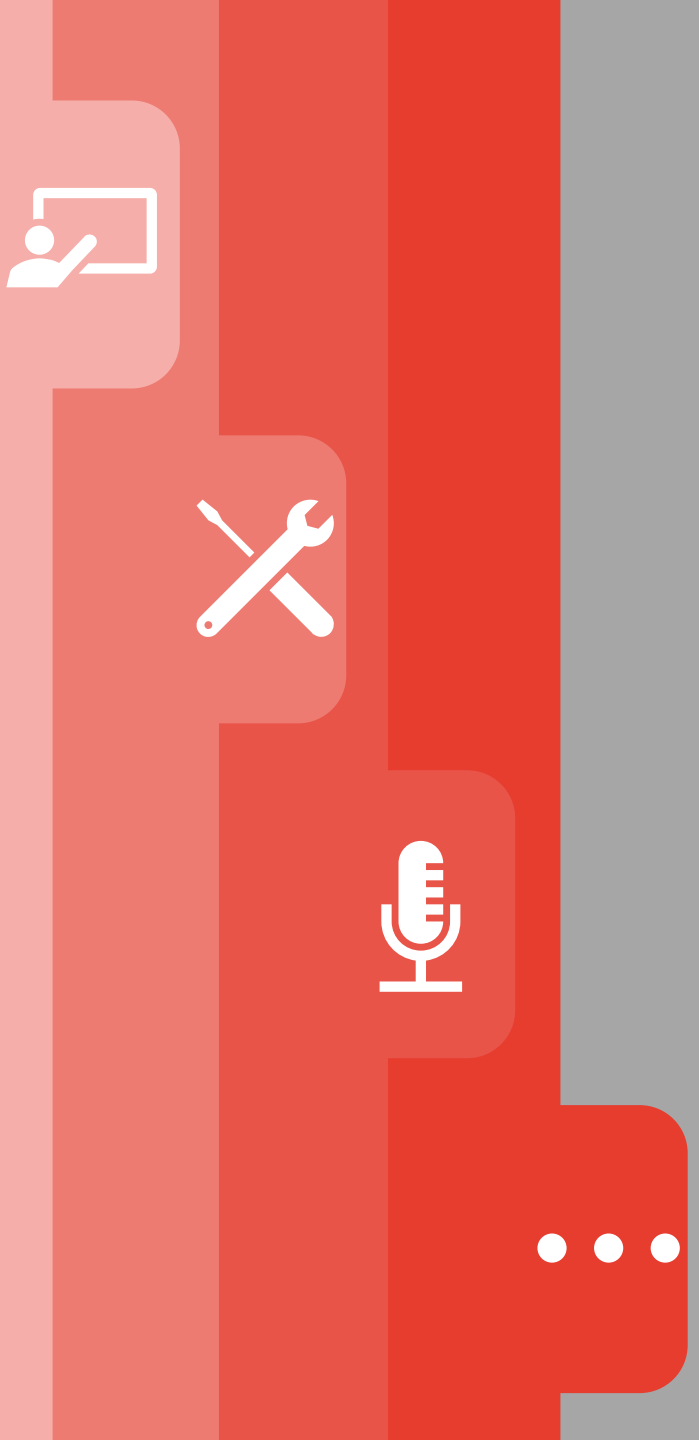
Retention period
under the TPDES MSGP

5 Elements of a Quality Stormwater Program

Report

Reporting

- Semi-Annual Benchmark Monitoring via CDX NetDMR
- Annual Hazardous Metals Monitoring (Paper form in SWPPP)
- Delegation of Signatory Authority via STEERS
- Metals exceedance report via CDX Net DMR
- Maintain correct outfall locations in STEERS (use NOC form as needed)



Challenges

Challenges

Maintaining Consistency

Challenges

Effective Communication and Coordination

Challenges

Resource Allocation

Challenges

Training &
Awareness

Define Goals

Align Culture

Understand Regulatory Environment

Develop policies, procedures, and standards

Utilize Technology

Train Employees

Monitor Compliance

Thank you!

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