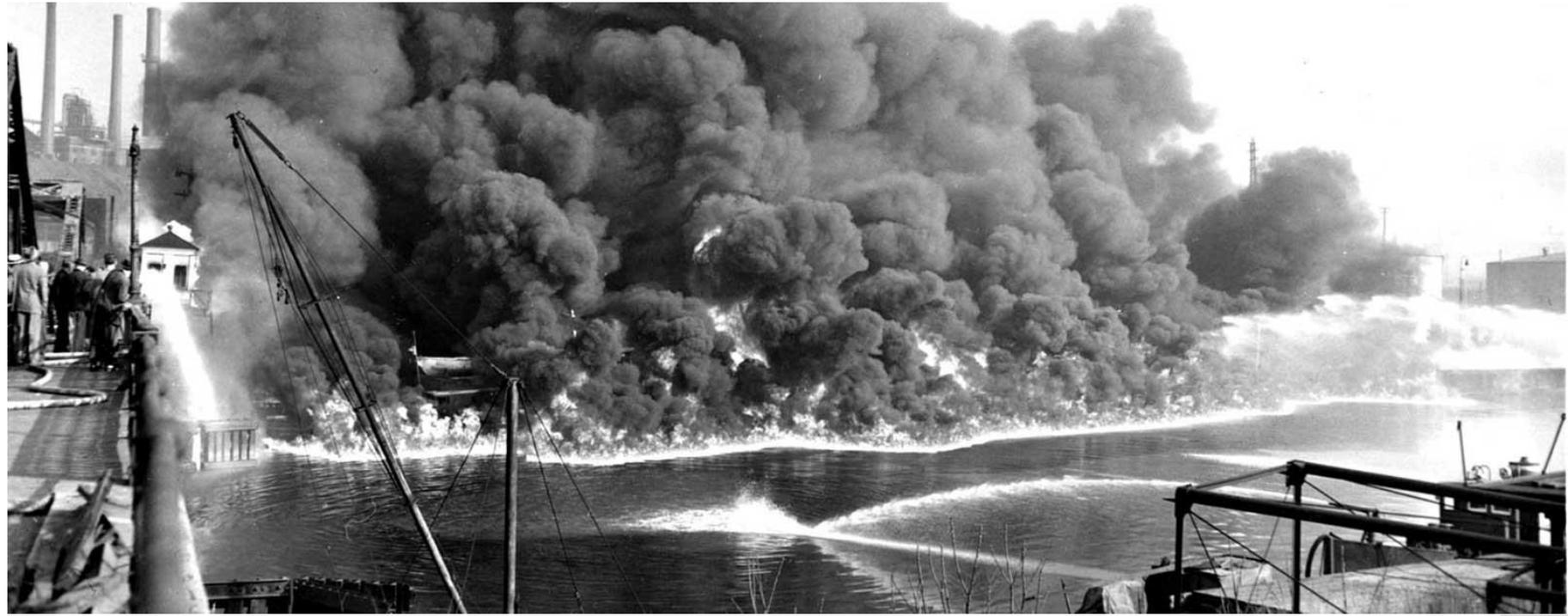


# OVERVIEW OF INDUSTRIAL STORMWATER MANAGEMENT AND PERMITTING

Mark Matthews, EPA Region 7  
Iowa Strategic Goals Program  
November 9, 2023

# The Clean Water Act of 1972



- The Cuyahoga River was known as one of the most polluted rivers in the United States
- Since 1868, it caught fire 13 times
- The photo above is from a fire in 1952 which caused over \$1.3 million in damages
- Photo is from Cleveland State University Library

Retrieved from: <https://www.alleghenyfront.org/how-a-burning-river-helped-create-the-clean-water-act/>

# The Clean Water Act of 1972

- The CWA regulates the discharge of pollutants from point sources into navigable waters
- Sets forward the NPDES Program



Photo from:  
<http://www.bwsc.org/COMMUNITY/prevention/prevention.asp>

# Water Quality Act of 1987

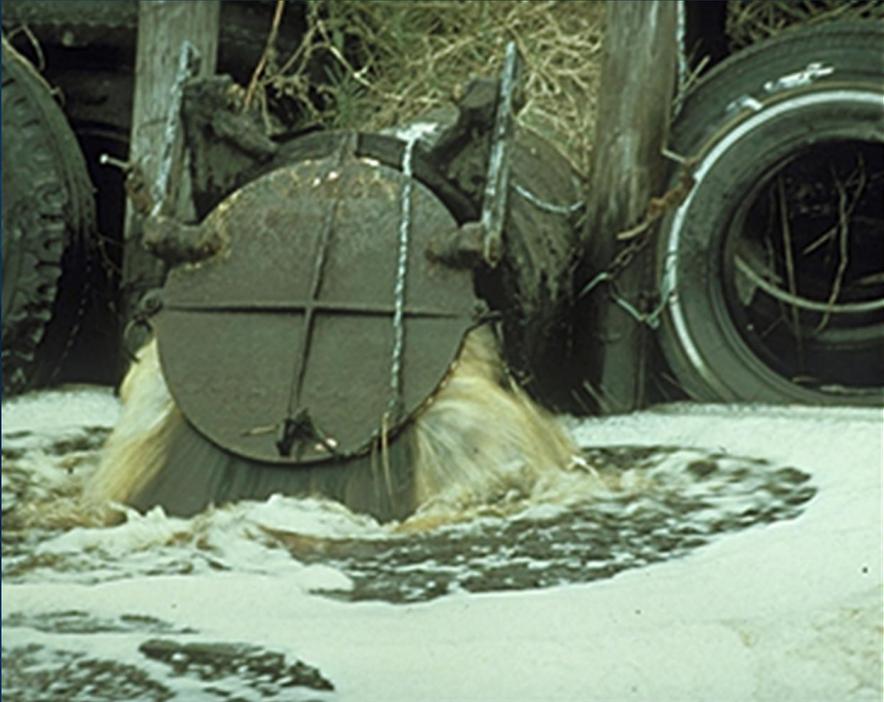


- Specific storm water permitting requirements

Why is stormwater runoff an issue?



# Common Stormwater Pollutants



- ▶ Sediment
- ▶ Nutrients
- ▶ Oxygen-Demanding Substances
- ▶ Pathogens
- ▶ Trash
- ▶ Road Salts
- ▶ Oil and Grease
- ▶ Heavy Metals
- ▶ Heat
- ▶ PAHs

# Water Quality Impacts: Pollutants

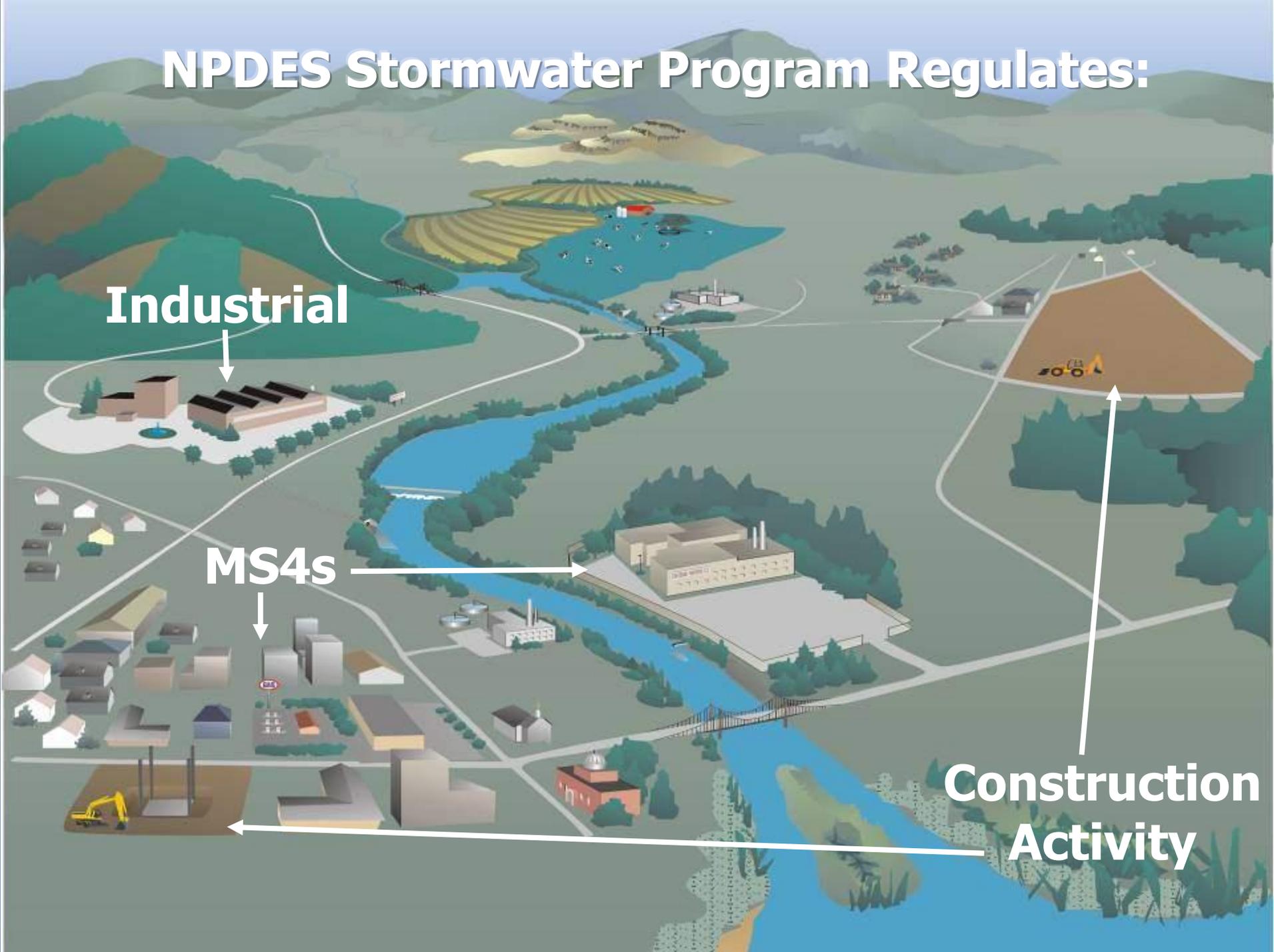


# NPDES Stormwater Program Regulates:

**Industrial**

**MS4s**

**Construction Activity**



# Stormwater NPDES Permits

- ▶ Construction Site Stormwater
  - ▶ Sites greater than one acre
  - ▶ Site specific plans mainly to reduce sediment runoff
- ▶ Industrial Stormwater
  - ▶ Wide variety of manufacturing facilities are regulated
  - ▶ Site specific plans to reduce industry pollutants
- ▶ Municipal Stormwater Pollutant Discharges
  - ▶ Municipalities in large urban areas
  - ▶ Generally cities outside urban areas with population >10,000
  - ▶ Involve public
  - ▶ Illicit discharge elimination
  - ▶ Construction and Post-construction
  - ▶ Municipally owned facilities



Is there an  
exclusion?

Yes – A  
Conditional  
Exclusion for  
“No Exposure”\*

If all industrial  
materials and activities **are  
protected by a storm resistant  
shelter** to prevent exposure  
to rain, snow, snowmelt,  
and/or runoff – **No MSGP  
needed**

- ✓ Check the no exposure conditions in  
40 CFR 122.26(g)



# Regulated Industrial Activities

1. Facilities Subject to Standards
2. Heavy Manufacturing
3. Mining/Oil and Gas
4. Hazardous Waste Facilities
5. Landfills
6. Recycling Facilities
7. Steam Electric Power Plants
8. Transportation Industries
9. Sewage Treatment Plants
10. Construction Activity
11. Light Industry

## WHAT SECTORS ARE COVERED?

Sector	
P	Land Transportation
J	Mineral Mining
N	Scrap Recycling
E	Glass, Clay, Cement
S	Air Transportation
Q	Water Transportation
M	Auto Salvage Yards
D	Asphalt/Roofing
U	Food Products
A	Timber Products
C	Chemical Products
Y	Rubber, Misc. Plastics
R	Ship/Boat Building, Repair
AA	Fabricated Metal Products
AC	Electronic, photo goods

Sector	
G	Metal Mining
AB	Transportation Equip.
B	Paper Products
F	Primary Metals
I	Oil & Gas
V	Textile Mills
H	Coal Mines
X	Printing, Publishing
O	Steam Electric
T	WWTPs
W	Furniture & Fixtures
L	Landfills
AD	Non-classified
K	Hazardous Waste
Z	Leather Tanning/Finishing

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
MULTI-SECTOR GENERAL PERMIT (MSGP)  
FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY**

In compliance with the provisions of the Clean Water Act (CWA), as amended (33 U.S.C. 1251 et seq.), operators of stormwater discharges associated with industrial activity located in an area identified in Appendix C where EPA is the permitting authority are authorized to discharge to waters of the United States in accordance with the eligibility and Notice of Intent (NOI) requirements, effluent limitations, inspection requirements, and other conditions set forth in this permit. This permit is structured as follows:

- **Parts 1-7:** General requirements that apply to all facilities;
- **Part 8:** Industry sector-specific requirements;
- **Part 9:** Specific requirements that apply in individual states and Indian country; and
- **Appendices A through P:** Additional permit conditions that apply to all operators covered under this permit.

This permit becomes effective on **September 29, 2021**. This permit and the authorization to discharge shall expire at 11:59 pm eastern time, **February 28, 2026**.

Signed and issued this 29<sup>th</sup> day of September 2021

**KENNETH  
MORAFF**

Kenneth Moraff,  
Director, Water Division, EPA Region 1.

Digitally signed by  
KENNETH MORAFF  
Date: 2021.09.29  
09:47:51 -04'00'

Signed and issued this 29<sup>th</sup> day of September 2021

**Laureano,  
Javier**

Javier Laureano,  
Director, Water Division, EPA Region 2.

Digitally signed by  
Laureano, Javier  
Date: 2021.09.29  
09:13:30 -04'00'

Signed and issued this 29<sup>th</sup> day of September 2021

**CHARLES  
MAGUIRE**

Charles Maguire,  
Director, Water Division, EPA Region 6.

Digitally signed by CHARLES MAGUIRE  
DN: c=US, o=U.S. Government,  
ou=Environmental Protection Agency,  
ou=CHARLES MAGUIRE,  
0.9.2342.19200300.100.1.1=66001003650036  
Date: 2021.09.29 13:25:19 -05'00'

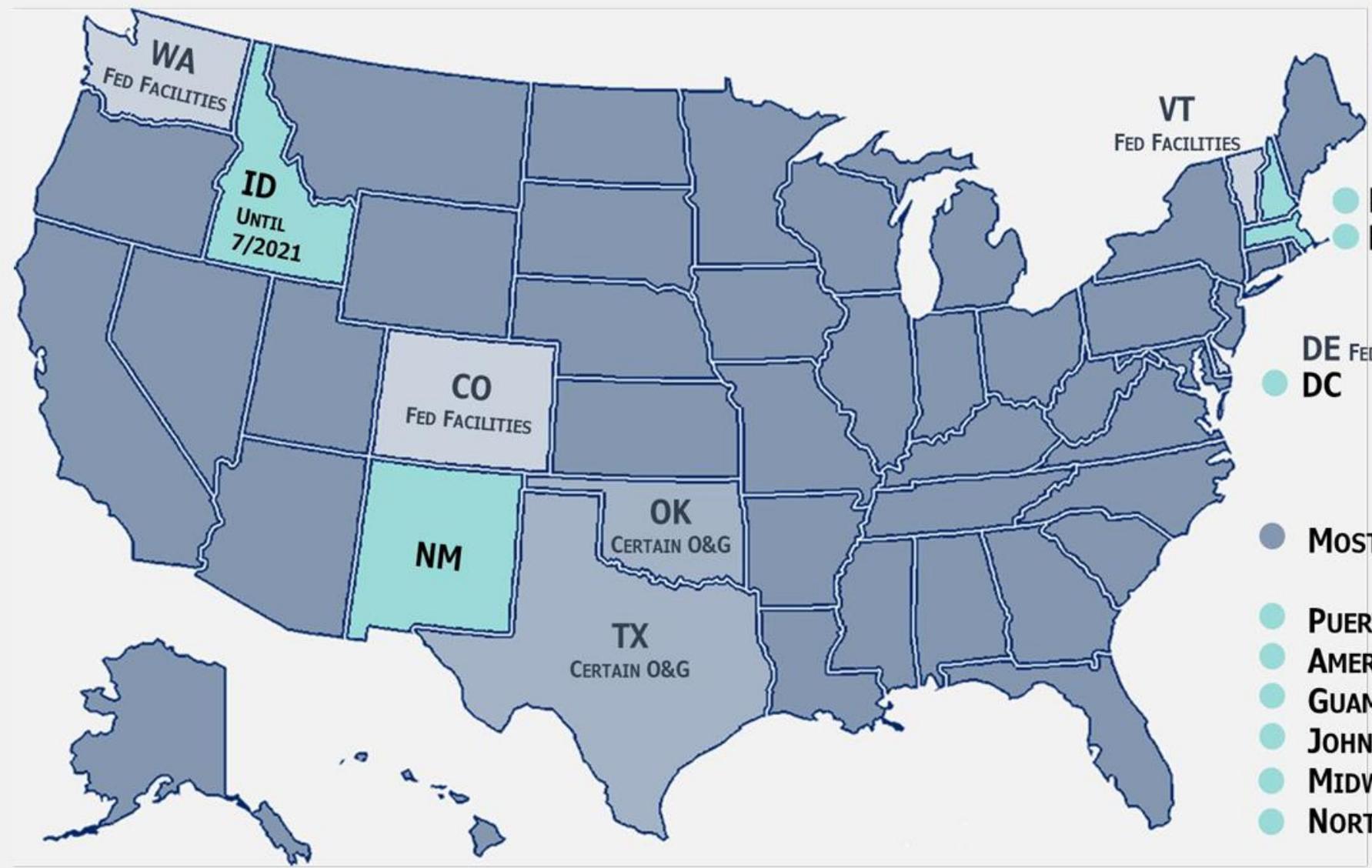
Signed and issued this 29<sup>th</sup> day of September 2021

**JEFFERY  
ROBICHAUD**

Jeffery Robichaud,  
Director, Water Division, EPA Region 7.

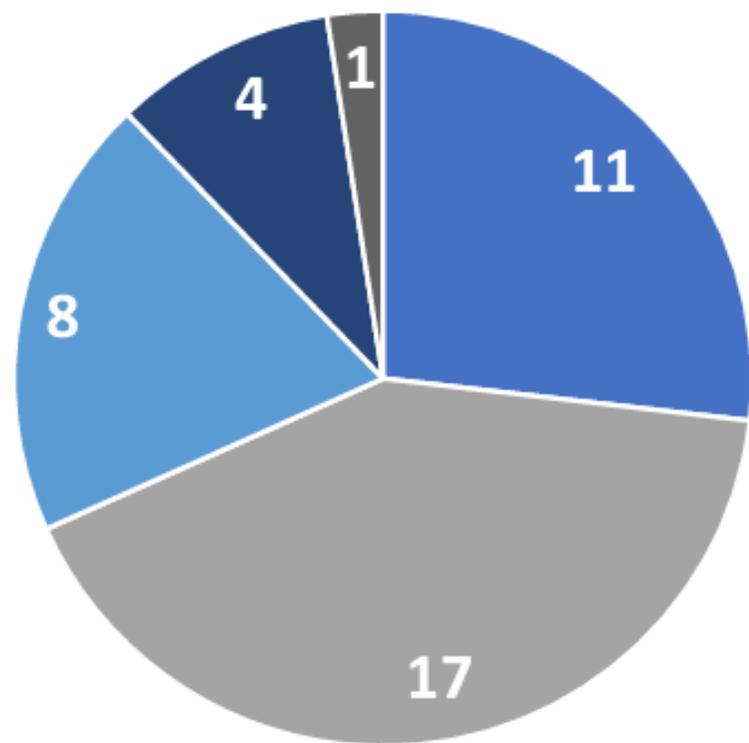
Digitally signed by  
JEFFERY ROBICHAUD  
Date: 2021.09.29  
09:31:41 -05'00'

# Where does EPA's MSGP apply?



- NH
- MA
- DE FED FACILITIES
- DC
- MOST INDIAN COUNTRY LANDS
- PUERTO RICO
- AMERICAN SAMOA
- GUAM
- JOHNSTON ATOLL
- MIDWAY ISLAND & WAKE ISLAND
- NORTHERN MARIANA ISLANDS

## Evaluation of 41 state MSGPs v. EPA 2015 MSGP



■ Identical/Substantially Similar

■ Similar (somewhat)

■ Substantially Different

■ Split - Similar (somewhat) & Identical/Substantially Similar

■ Split - Similar (somewhat) & Substantially Different

▶ Air Quality

▶ Land Quality

▶ Water Quality

&gt; Drinking Water Compliance

&gt; Certification

&gt; Iowa Water Plan

&gt; Private Well Program

&gt; Lake Restoration

&gt; River Restoration

&gt; Water Supply Engineering

&gt; Source Water Protection

&gt; Water Security

&gt; Watershed Improvement

&gt; Watershed Management Authorities

## NPDES General Permits

### Iowa DNR General NPDES Permits:

The Iowa DNR has issued nine General NPDES Permits. They are as follows:

- **General Permit No. 1**, *Stormwater Discharge Associated with Industrial Activity*, effective March 1, 2023 to February 29, 2028.
- **General Permit No. 2**, *Stormwater Discharge Associated with Construction Activities*, effective March 1, 2023 to February 29, 2028.
- **General Permit No. 3**, *Stormwater Discharge Associated with Industrial Activity for Asphalt Plants, Concrete Batch Plants, Rock Crushing Plants, and Construction Sand and Gravel Facilities*, effective March 1, 2023 to February 29, 2028.
- **General Permit No. 4**, *Discharge from Private Sewage Disposal Systems*, effective March 1, 2023 to February 29, 2028.
- **General Permit No. 5**, *Discharge from Mining and Processing Facilities*, effective July 1, 2023 to June 30, 2028.
- **General Permit No. 6**, *Discharge Associated with Well Construction Activities*, effective July 1, 2023 to June 30, 2028.
- **General Permit No. 7**, *Pesticide General Permit (PGP) for Point Source Discharges to Waters of the United States From the Application of Pesticides*, effective July 1, 2023 to June 30, 2028.
- **General Permit No. 8**, *NPDES and State Operation permit, Discharge from Hydrostatic Testing, Tank Ballasting and Water Lines*, effective effective July 1, 2023 to June 30, 2028.
- **General Permit No. 9**, *NPDES and State Operation permit, Dewatering and Residential Geothermal Systems*, effective July 1, 2023 to June 30, 2028.

For more information on the stormwater general permits (1, 2, and 3), refer to the [Stormwater Permitting Requirements Information](#) page.

For more information on General Permits 4, 5, 6, 7, 8, and 9, please follow the links above.

### Iowa DNR General Permit Databases:

Refer to the Online Stormwater Database section of the [NPDES Databases](#) page for more information on the following:

**IOWA DEPARTMENT OF NATURAL RESOURCES**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)**

**GENERAL PERMIT NO. 1**

**EFFECTIVE DATES**

**MARCH 1, 2023 THROUGH FEBRUARY 29, 2028**

**FOR**

**STORM WATER DISCHARGE ASSOCIATED WITH**  
**INDUSTRIAL ACTIVITY**

# Industrial Stormwater Permits

**Must develop site-specific Stormwater Pollution Prevention Plan (SWPPP) that:**

**Identifies all sources of Stormwater pollutants at the Facility**

**Eliminates or reduces the sources of pollutants as much as possible**



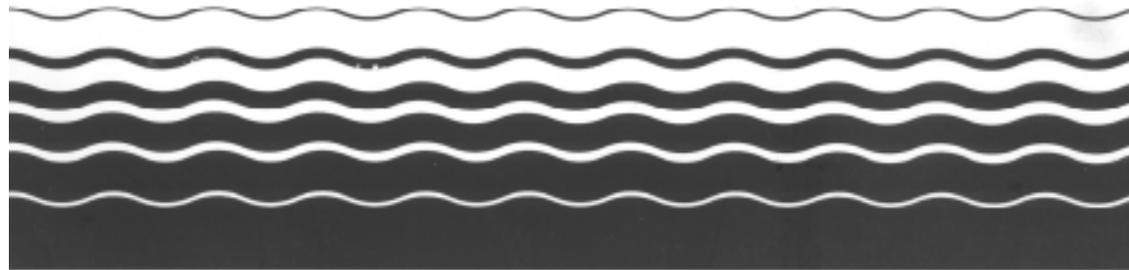
# Major SWPPP Components

1. Description of Pollutant Sources
2. Description of SW Management Controls
3. Visual Inspections
4. Corrective Actions
5. Identify Discharges to MS4
6. Salt Storage Areas
7. Non-Stormwater Discharges
8. Sampling Plans
9. Reporting
10. SARA 313 Plans



# **Storm Water Management For Industrial Activities**

Developing  
Pollution Prevention Plans  
And Best Management  
Practices





Displaying title 40, up to date as of 11/03/2023. Title 40 was last amended 11/03/2023. [view historical versions](#)

Enter a search term or CFR reference (eg. fishing or 1 CFR 1.1)

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ECFR CONTENT

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### PART 449—AIRPORT DEICING POINT SOURCE CATEGORY

**Authority:** 33 U.S.C. 1311, 1314, 1316, 1318, 1342, 1361 and 1370.

**Source:** 77 FR 29203, May 16, 2012, unless otherwise noted.

#### Subpart A—Airport Deicing Category

##### § 449.1 Applicability.

This part applies to discharges of pollutants from deicing operations at Primary Airports.

##### § 449.2 General definitions.

The following definitions apply to this part:

**Aircraft deicing fluid (ADF)** means a fluid (other than hot water) applied to aircraft to remove or prevent any accumulation of snow or ice on the aircraft. This includes deicing and anti-icing fluids

<b>Regulated Activity</b>
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)
Runoff from asphalt emulsion facilities
Runoff from material storage piles at cement manufacturing facilities
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities
Runoff from hazardous waste landfills
Runoff from non-hazardous waste landfills
Runoff from coal storage piles at steam electric generating facilities
Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures.

# Infiltration Basin



# Wet Pond/Retention Basin



David Schelling, IDNR

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515-217-0875