CWA Hazardous Substances Facility Response Plan (FRP) Regulations

Thaddeus Bahl, PE
Managing Consultant
tbahl@all4inc.com

Agenda

- Background
- Applicability Criteria
- Worst Case Discharge
- Facility Response Plans
- What Comes Next?

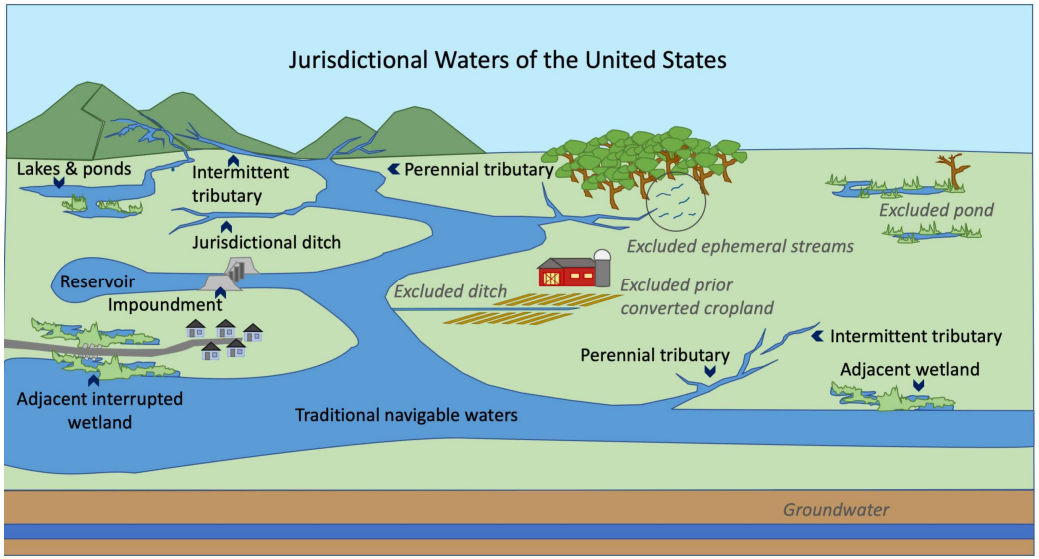
Background of CWA Hazardous Substances FRP

- March 2019 - Natural Resources Defense Council files suit against U.S. EPA
- March 2020 – U.S. EPA enters consent decree to resolve the suit
- March 2022 – First proposal of Clean Water Act (CWA) Worst Case Discharge Planning with comment period
- March 2024 – Clean Water Act Hazardous Substances Facility Response Plans (40 CFR 118) is published in the Federal Register, effective May 28, 2024
- June 1, 2027 – Facilities are required to submit response plans to U.S. EPA for review (facility response plans need to be recertified every 5 years after initial compliance date of November 30, 2026)

SPCC, FRP, and Worst-Case Discharge

	SPCC	Oil Pollution Prevention - FRP	CWA Hazardous Substances - FRP
Applicability	Non-transportation-related operations that store, transfer, use, or consume oil or oil products. There is a reasonable expectation of an oil discharge into or upon navigable waters of the U.S.	The owner or operator of any non-transportation-related onshore facility that could reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines.	Land-based facilities in which CWA hazardous substances are made, used, stored, or otherwise handled that could reasonably be expected to cause substantial harm to the environment. The facility must be located **within 0.5 miles of navigable water or a conveyance to navigable water.**
Onsite Quantity	1,320 U.S. Gallons of oil stored aboveground and 42,000 U.S. of oil store underground. Containers ≥ 55 gallons.	The facility transfers oil over water to or from vessels and has a total oil storage capacity greater than or equal to 42,000 gallons; or the facility's total oil storage capacity is greater than or equal to 1 million gallons.	Maximum onsite quantity of any CWA Hazardous Substance (HS) > **1,000 times U.S. EPA Reportable Quantity (RQ)** as per 40 CFR 117.3.
Materials	Oil Products	Oil Products	296 Clean Water Act Hazardous Substances

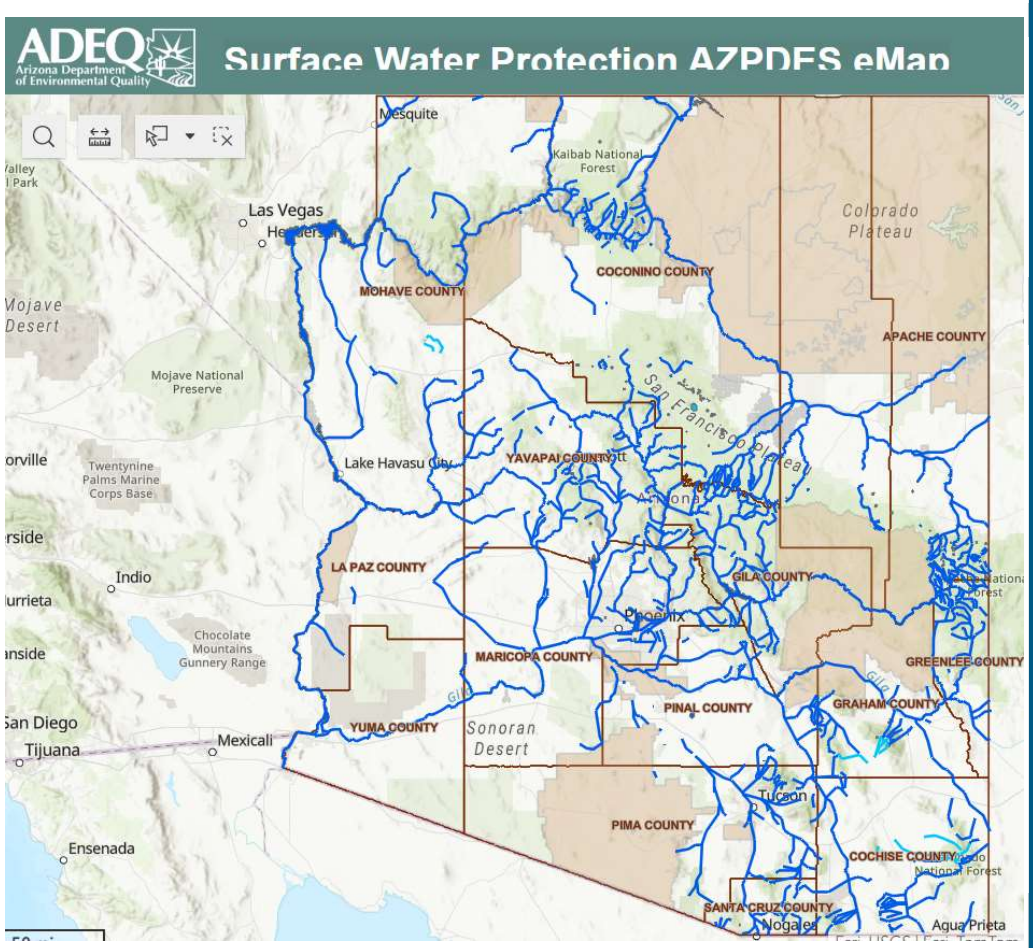
What is Considered Navigable Water?



- Traditional Navigable Waters
- Territorial Seas
- Interstate Waters
- Impoundments (impounded bodies of water created in or from WOTUS like reservoirs and beaver ponds)
- Tributaries (branches of creeks, streams, rivers, lakes, ponds, ditches, and impoundments that ultimately flow into the first three categories)
- Adjacent Wetlands
- Additional Waters (lakes, ponds, streams, or wetlands that do not fit into the above categories and meet either the relatively permanent standard or the significant nexus standard)

Arizona Resources

- Arizona's Surface Waters Protection Program (SWPP)
- Ensures protection, despite fluctuating regulations
- Easier to identify protected waters through ADEQ's Surface Water Protection AZPDES eMap
- Non-WOTUS waters are protected by the State and would not be covered by the Federal regulations



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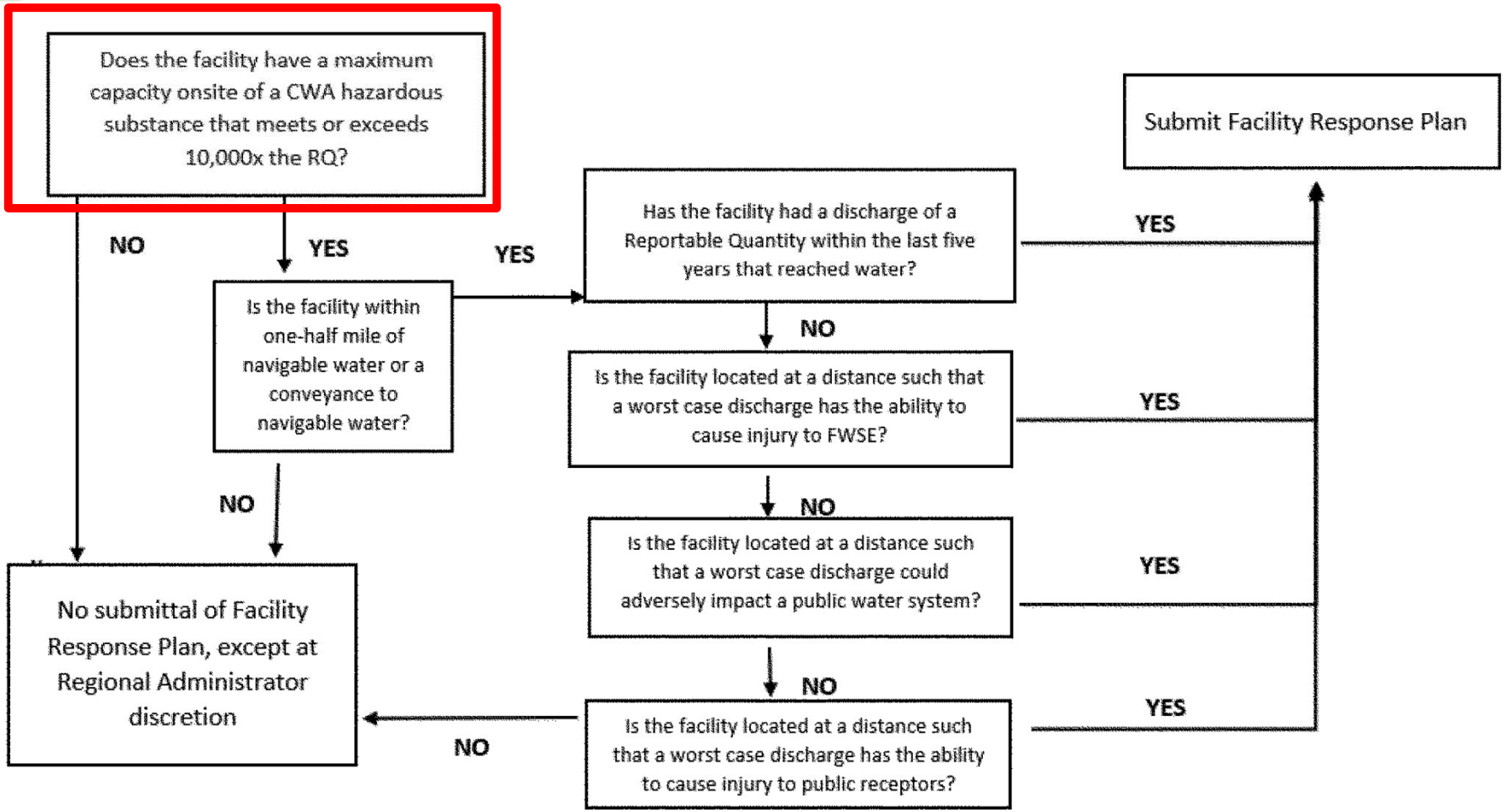
What is a Conveyance?

- U.S. EPA has not included a rule specific definition
- The means of transport will be discernible, confined, and discrete to the navigable water
  - any storm drain, pipe, ditch, channel, tunnel, or conduit

What changed since prelim draft?



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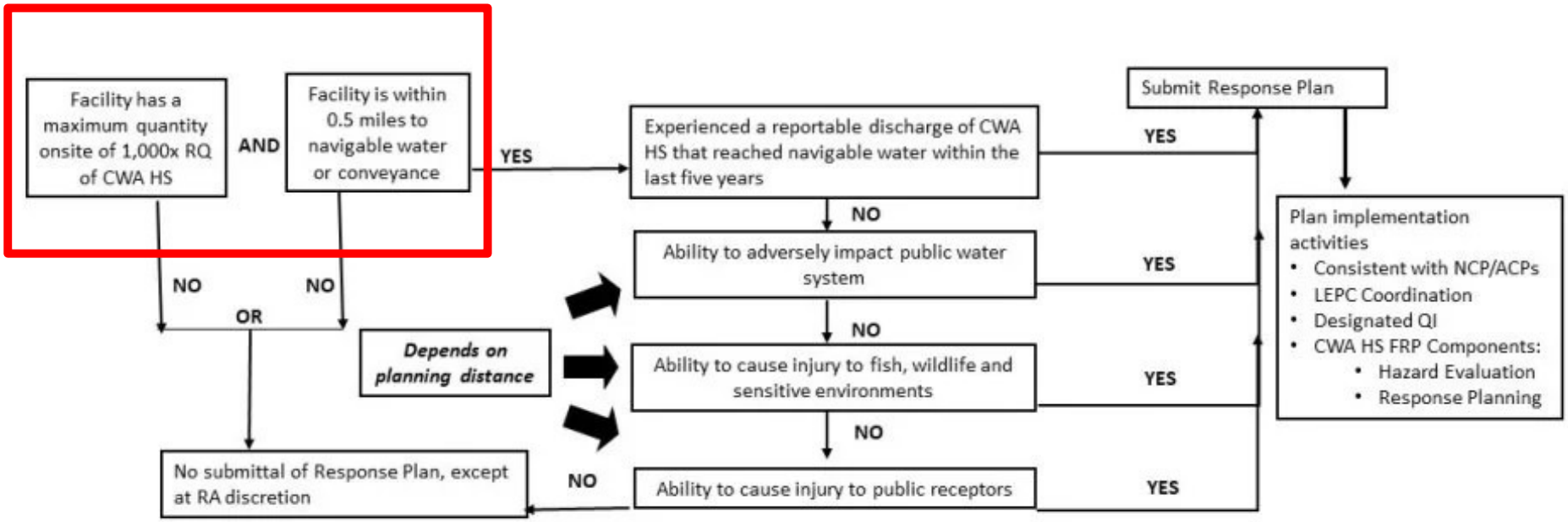
Final Applicability Criteria



Applicability

- **Step 1:**
  - Facility has a maximum quantity onsite of ≥1,000 x RQ (in pounds or kilograms) of a CWA HS.

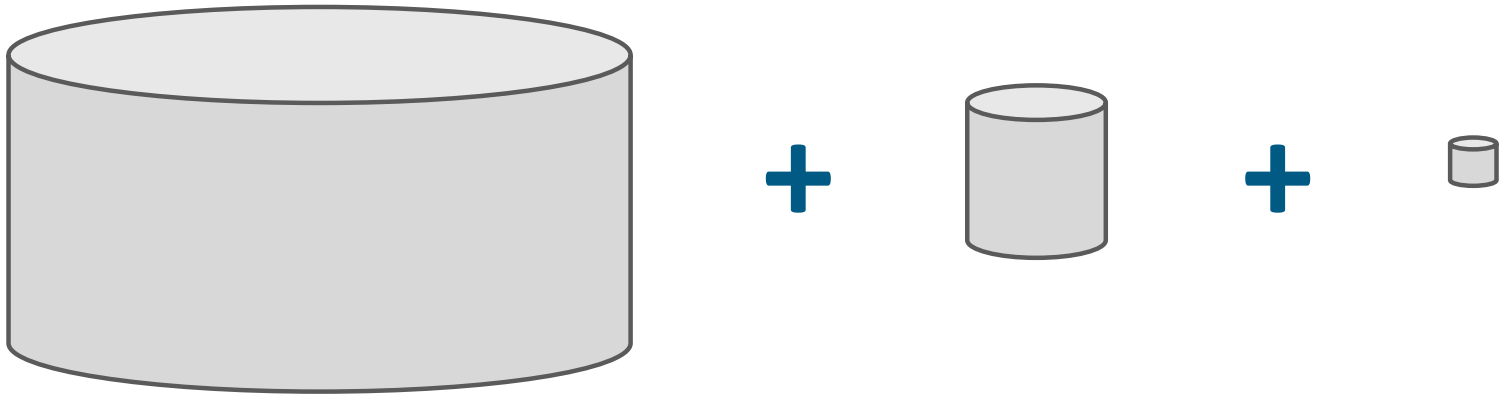
    AND
  - Facility is within 0.5 miles of navigable water or conveyance.
- All 296 hazardous substance RQs can be found at **40 CFR 117.3**.
  - Was added to U.S. EPA's list of lists

CWA Hazardous Substances Include:

- Acids and Bases: Sulfuric Acid, Sodium Hydroxide
- Inorganics: Sodium Arsenate, Sodium Cyanide
- Water Treatment Chemicals: Sodium Hypochlorite, Aluminum Sulfate, Ferric
- VOCs: Benzene, Xylenes, Styrene
- Pesticides: Chlorpyrifos, Endosulfan

Maximum Quantity Onsite

- There is no *de minimis* container size exemption.



- Non-hazardous landfills must be included.
- **Must include CWA HS in mixtures.**

Data Availability

- Toxic Release Inventory (TRI)
- SARA TIER II Reporting
- Best Management Practices (BMP) Plans
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Tracking and Reporting

Math for Mixtures

10,000 lbs of Phenoxyl herbicide

- 42-**47**% 2,4-Dichlorophenoxyacetic acid, dimethylamine salt
  - CWA HS, RQ: 100 lbs, TQ: 100,000 lbs
  - 0.47 x 10,000 lbs = 4,700 lbs
  - 4,700 lbs < TQ of 100,000 lbs – not triggered
- 5-**10**% Dicamba
  - CWA HS, RQ: 1,000 lbs TQ: 1,000,000 lbs
  - 0.10 x 10,000 lbs = 1,000 lbs
  - 1,000 lbs < TQ of 1,000,000 lbs – not triggered

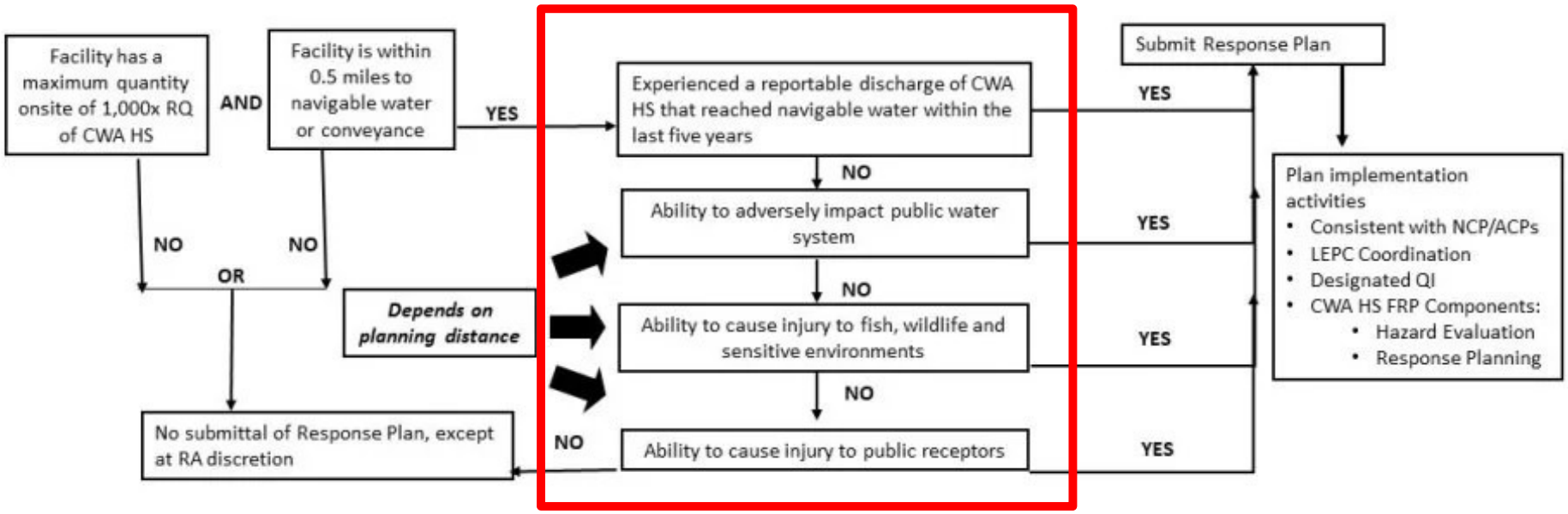
Math for Mixtures

- Phenoxyl Herbicide
  - 4,700 lbs of 2,4-Dichlorophenoxyacetic acid, dimethylamine salt (TQ 100,000 lbs)
  - 1,000 lbs of Dicamba (TQ 1,000,000 lbs)
- Hypothetical compound, same facility – 200,000 lbs
  - 10-**48**% 2,4-Dichlorophenoxyacetic acid, dimethylamine salt
    - 0.48 x 200,000 lbs = 96,000 lbs
    - 96,000 + 4,700 = 100,700 lbs > TQ of 100,000!
  - 20-**60**% Dicamba
    - 0.60 x 200,000 lbs = 120,000 lbs
    - 120,000 + 1,000 = 121,000 < TQ – not triggered

Proximity to Navigable Waters

- The non-transportation-related onshore **facility boundary** or **nearest opportunity for discharge** is located within 0.5 miles of navigable waters or a conveyance to navigable waters.
- The boundaries of a facility depend on several site-specific factors, including but not limited to, the ownership or operation of buildings, structures, and equipment on the same site and types of activity at the site.

Final Applicability Criteria



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Applicability

- **Step 2:**
  - Facility had a CWA RQ discharge in the past 5 years;

    OR
  - Ability to adversely impact a public water system based on modeled planning distance

    OR
  - Ability to cause injury to fish, wildlife, and sensitive environments (FWSE) modeled planning distance

    OR
  - Ability to cause injury to public receptors.

Ability to Adversely Impact a Public Water System (PWS)

- Violates any National Primary Drinking Water Standard (NPDWS) or State Drinking Water Regulation (SDWR)
- Compromises the ability of the PWS to produce water that complies with any NPDWS or SDWR
- Results in adverse health impacts in people exposed
- Contaminates public water system infrastructure
  - intake structures, treatment facilities,
  - distribution systems,
  - premise plumbing systems
- Impairs the taste, odor, or other aesthetic characteristic of the water entering a drinking water distribution system

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Ability to Cause Injury to Fish, Wildlife, and Sensitive Environments (FWSE)

- Located at a distance such that a discharge located at a distance to an endpoint as calculated using a planning distance from the facility could cause "injury" to fish, wildlife, and sensitive environments
- Includes but not limited to:
  - Wetlands
  - National and State parks
  - Conservation areas and preserves
  - Wildlife refuges
  - Wild and scenic rivers
  - National forests

Ability to Cause Injury to Public Receptors

- Any public spaces inhabited, occupied, or used by the public at any time where members of the public could be injured

Modeling Factors

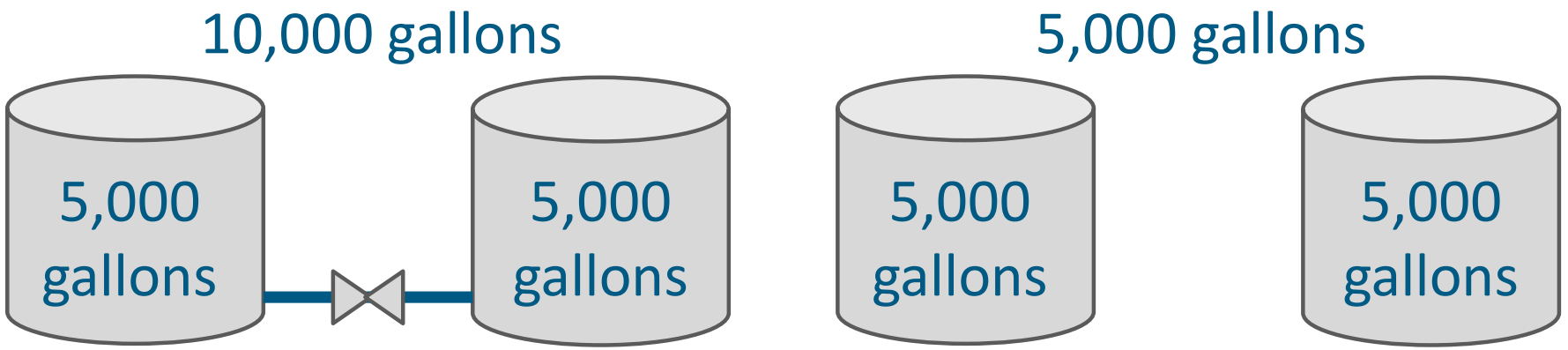
- Must account for:
  - Each CWA HS ≥1,000 x RQ.
  - Adverse weather, including climate change.
  - Largest foreseeable discharge, including because of a fire or explosion.
  - Quantity in piping and interconnected containers.
- Must exclude:
  - Secondary Containment

Modeling Factors

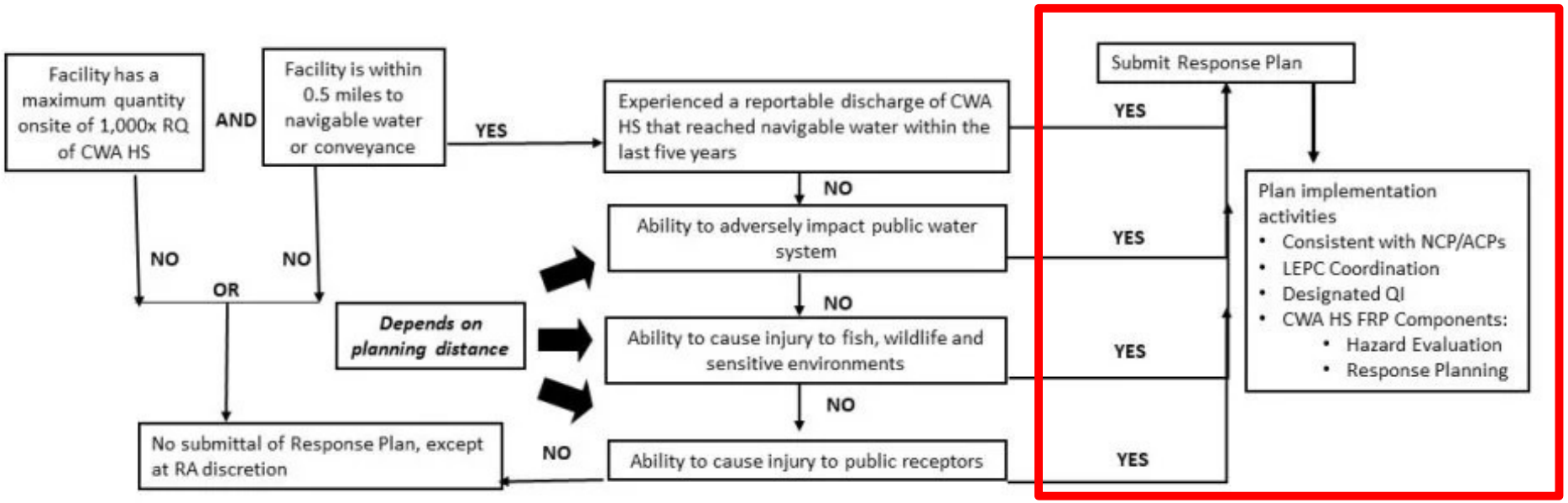
- Typical Modeling Inputs:
  - Receiving water properties.
    - Base and peak flows, temperature, pH, depth.
  - CWA hazardous substance properties.
    - Solubility, vapor pressure, reactivity.
  - Transport Mechanisms affecting the endpoint.
    - Volatilization, diffusion, dispersion, biodegradation.

Worst Case Discharge

- CWA HS in separate containers, the maximum quantity of a single container, such as a bulk storage tank, process vessel, rail car, or mobile or portable container;
- CWA HS in interconnected containers, the maximum quantity of a group of interconnected containers;



If Applicable



https://www.epa.gov/hazardous-substance-spills-planning-regulations/clean-water-act-hazardous-substance-facility

High Level FRP Requirements

- Identification of Qualified Individuals (QI).
- Identification of key response resources.
- Routine employee training and response drills.
- Risk identification, characterization, control, and communication.
- Coordination with Local Emergency Planning Committee (LEPC).
- Release detection including hazardous air releases resulting from discharges.

What If…

- You already have an oil-based FRP but trigger for a hazardous substance under the worst-case discharge rule?
- The hazardous substance stored is a solid or a gas – do I still need to do anything?
- You exceed the reportable quantity thresholds, but modeling shows the substantial harm criteria are not met?
- You do not meet the applicability criteria before the original applicability date by November 30, 2026 but meet the criteria at a later date?

Recent Developments

- Recent Updates
  - Deadline for legal suits over the final FRP rule was July 26, 2024
  - Final implementation dates could be delayed pending U.S. EPA resources
  - Guidance on substantial harm criteria applicability from U.S. EPA is forthcoming (late 2025)

What Comes Next?

- Facilities will need to determine the applicability to their facility based on specific criteria within the rule and, if required, submit a FRP by **June 1, 2027.**
- This may seem like a far-off date, but inventorying all your CWA hazardous substances, modeling worst case discharges, developing the FRP, forecasting for future facility expansions, and implementing capital projects takes time and planning.

Questions or Comments?

Contact Information:

Thaddeus Bahl
tbahl@all4inc.com // 480.600.6002

www.all4inc.com