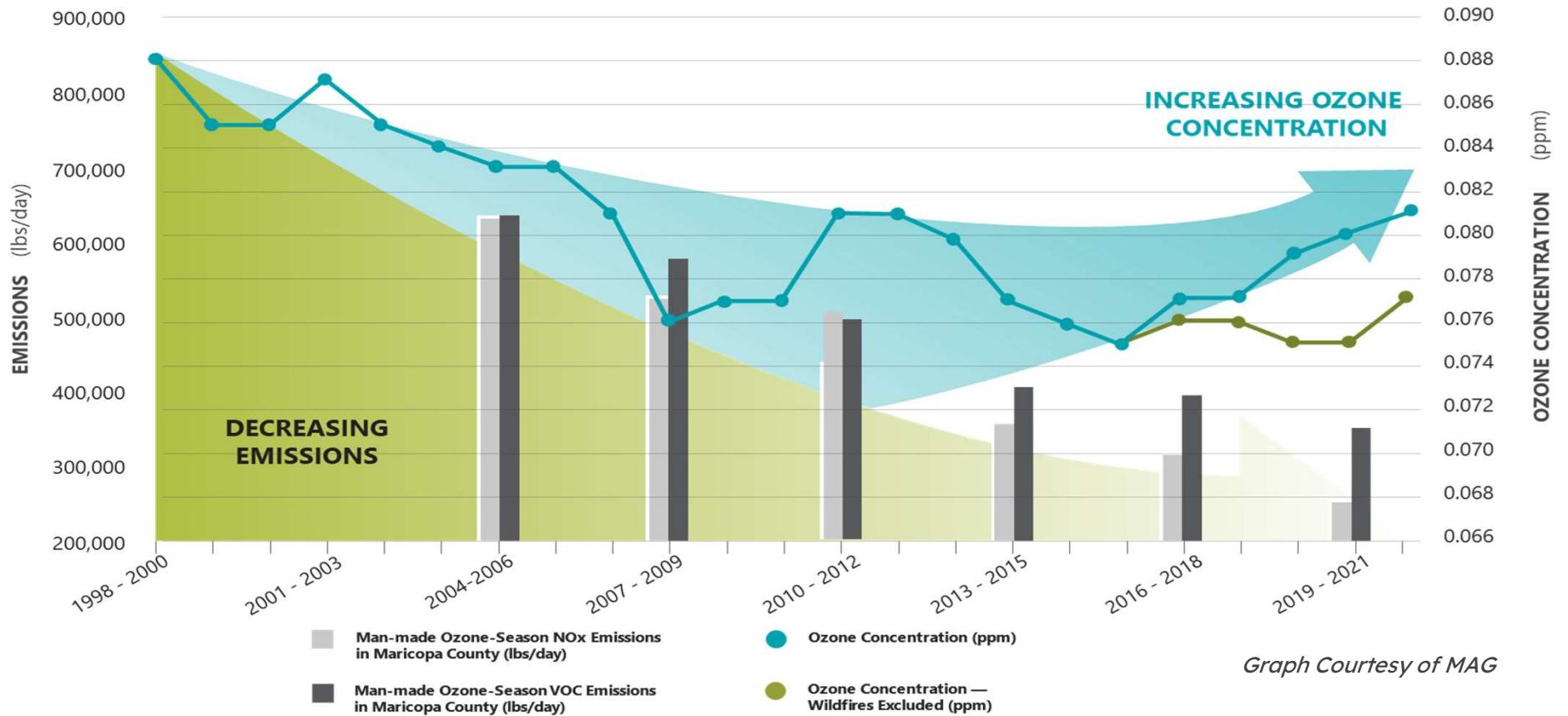




Ground Level Ozone Research Project

Ozone Challenge: Decreasing Emissions Not Resulting in Decreasing Ozone



Hypotheses

1. **Increased wildfire activity** throughout western continental North America has significantly and consistently raised background ozone concentrations, higher exceedance day ozone concentrations, and more frequent ozone exceedance days in Intermountain West nonattainment areas.
2. Anthropogenic NO_x and VOC emissions **locally and nationally may not be decreasing as quickly as expected** by existing emission projections.
3. **Biogenic sources** of NO_x and VOC may be counteracting reductions from anthropogenic sources such that ambient NO_x and VOC concentrations may not be decreasing at the expected rate.
4. **Changes in atmospheric ozone chemistry are impairing the impacts of reductions** in manmade precursor emissions on expected reductions in policy-relevant ozone concentrations in Intermountain West nonattainment areas.

Hypotheses

5. **Increases in transported ozone** from outside Intermountain West nonattainment areas have contributed significantly to background ozone concentrations, higher exceedance day ozone concentrations, and more frequent ozone exceedance days.
6. **Meteorological and climatological factors** play a significant role in impairing the impacts of reductions in manmade precursor emissions on expected reductions in policy-relevant ozone concentrations in Intermountain West nonattainment areas.
7. Ozone concentrations above the 2015 EPA NAAQS (70 ppb) in the Intermountain West nonattainment areas (Phoenix, Salt Lake, Las Vegas, Denver) are primarily the result of a **combination of regional factors (wildfires, transport, rising background, etc.)** as opposed to local precursor emissions.
8. **Intermittent natural gas flaring from oil production** is adding combustion products and especially formaldehyde to the air column that is **then transported around the Southwest**.

The Plan

The three **scope areas** of the plan include **air pollution measurements**, **emission inventory verification**, and **data analysis and model evaluation**.

Organizations

- AZDEQ
- ASU
- Sonoma Tech
- NASA JPL
- EPA
- Maricopa County
- Maricopa Association of Governments

Sites and Tools

- 7 sites, **March-October**
 - Automated gas chromatograph (Auto GCs) systems for measurement of C2-C12 (via C2-C6 and C6-C12 modules)
 - NO_y analyzers
 - NO_x analyzers
 - Other VOC monitoring
 - PANDORA
 - VOCUS Eiger
- 2 sites will have Small Mobile Ozone Lidar (SMOLs) **April-August**

**2024 Revised Secondary
(Welfare-Based) Sulfur Dioxide (SO₂)
National Ambient Air Quality Standard**



2024 Revised Secondary Sulfur Dioxide National Ambient Air Quality Standard

2012 Secondary SO₂ Standard	2024 Secondary SO₂ Standard
<p>0.5 parts per million (ppm) as a 3-hour average, not to be exceeded more than once a year.</p>	<p>Annual standard of 10 parts per billion (ppb), averaged over three years.</p>

Boundary Recommendation Timeline and Process

Projected Timeline



2025 Concrete Batch Plant General Permit Renewal



CBP General Permit Program in Arizona

- General permits (GPs) ensure that the environment is protected from the effect of numerous, very similar, and generally smaller facilities
- The CBP GP allows facilities to produce concrete under air quality rules
- The CBP GP program serves more than 50 customers in Arizona

Production limitations under Current CBP GP

Scenario	Maximum Production Rate (Cubic Yards per Day)
Truck Mix Facilities with no Baghouse controlling emissions from the product loading point.	500
Truck Mix Facilities with a Baghouse controlling emissions from the product loading point.	2,000
Central Mix Facilities with no Baghouse controlling emissions from the product loading point.	2,000
Central Mix Facilities with a Baghouse controlling emissions from the product loading point.	2,000

Additionally, non-certified generators in Maricopa County shall be limited to combined brake horsepower of 750 HP

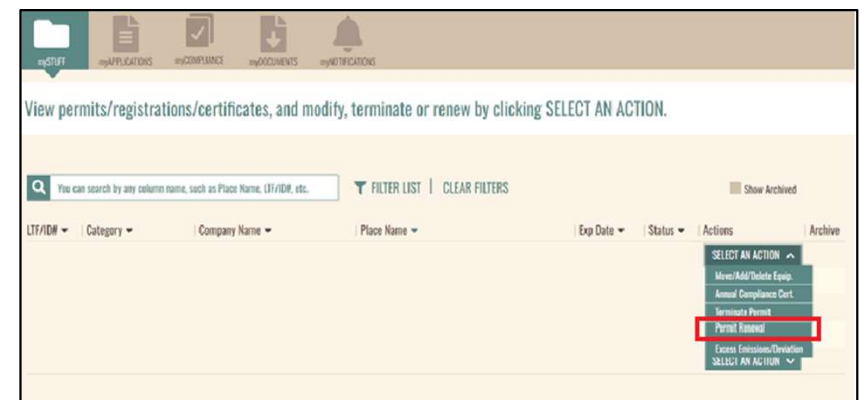


Proposed Changes

- The renewed Concrete Batch Plant General Permit will allow multiple concrete batch plants under the same ATO. This will allow Permittees to produce more than one type of product at a plant.
- The throughput limits have been updated to reflect the multiple concrete batch plant configuration. These new throughput limits were designed to not further restrict Permittees while achieving the same level of environmental protection.
 - CBP operations which have the equipment type, CBP Truck Mix without a Baghouse at the Product Loading Point: 500 yards³/ day
 - CBP operations which DO NOT have the equipment type, CBP Truck Mix without a Baghouse at the Product Loading Point: 2,000 yards³/ day

Renewal Process

- The renewal period is expected to open on May 22, 2025
- This renewal period will be open for 60 days. If the permit is not renewed in the renewal period, it will be considered expired
- myDEQ will send out reminders to renew the permit along with the deadlines
- The renewal process is performed through the myDEQ portal
- The renewal fee remains the same at \$500





Questions?

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Water Quality Division Update

Josephine Maressa
Deputy Director of Water Quality Division

Water Quality Division

Advanced Water Purification

Aquifer Water Quality Standards

Impaired Water Identification Rule

Total Maximum Daily Load

Advanced Water Purification



What is Advanced Water Purification?

Recycled or Reclaimed Water

Water that has been used more than once to expand a community's available water supply.

Potable Reuse

Use of recycled or treated reclaimed water that is safe for drinking.

May be accomplished directly or indirectly

Indirect Potable Reuse

Wastewater or reclaimed water is treated to drinking water levels and discharged into an "environmental buffer"

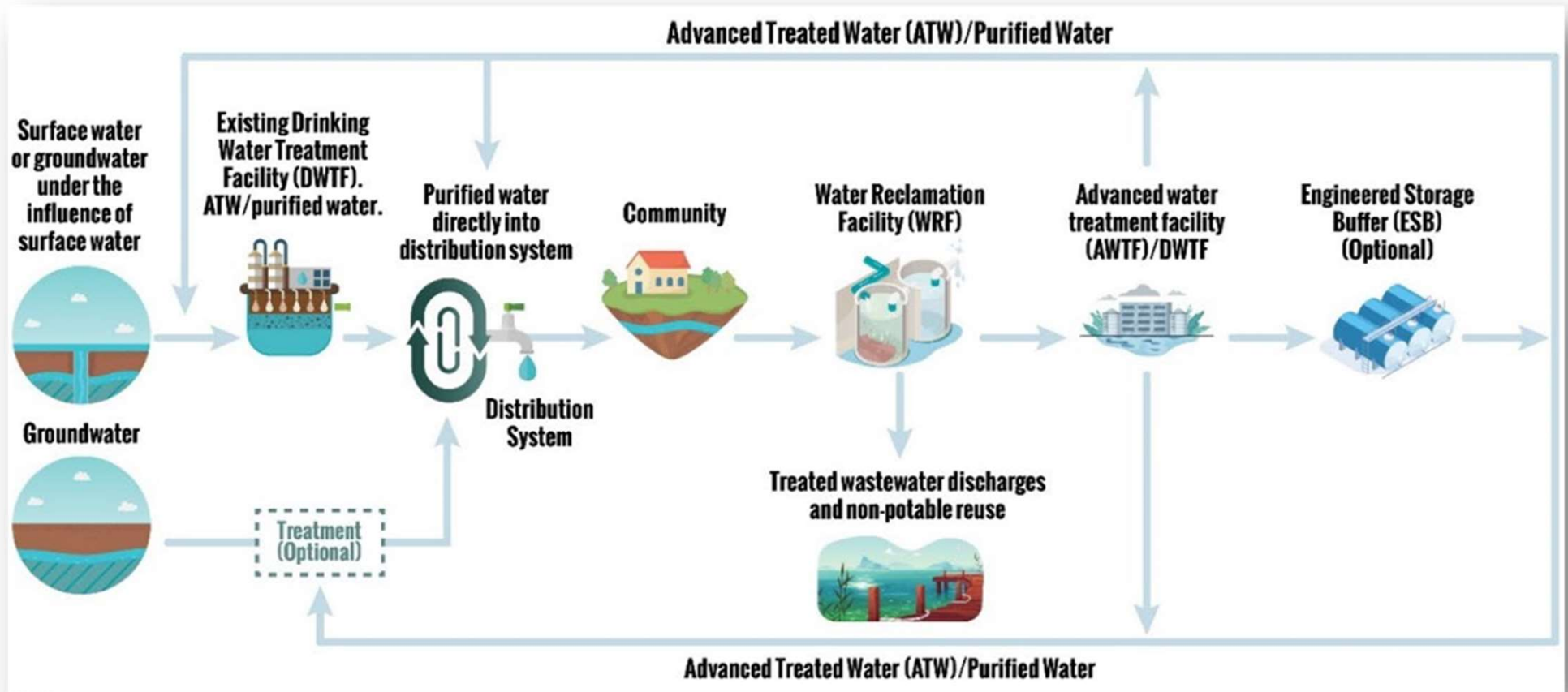
"Environmental buffer" is a natural depository such as a groundwater aquifer or surface water.

Direct Potable Reuse (DPR)

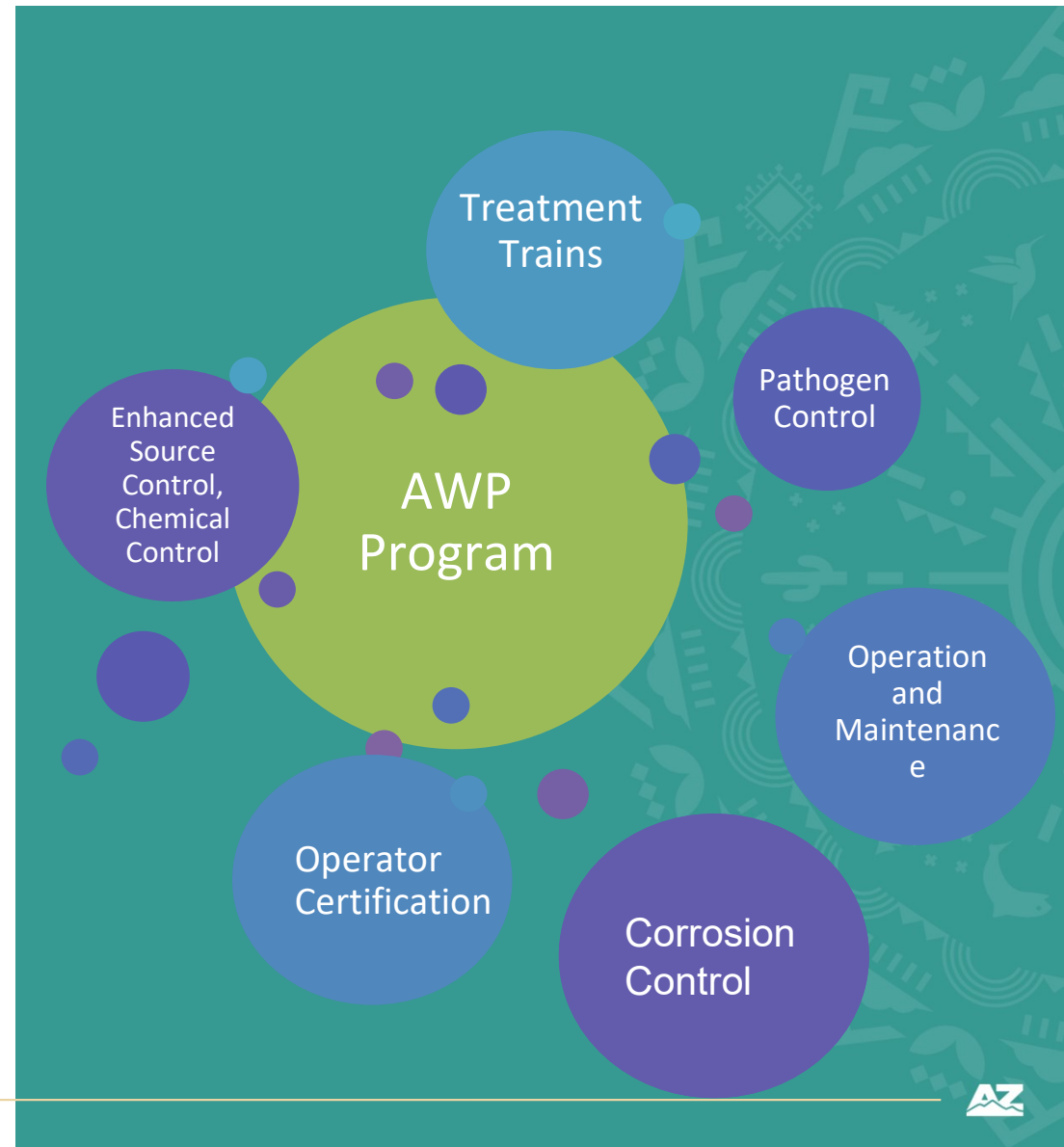
Water is treated and distributed as a drinking water supply *without an environmental buffer*

Purified water may be introduced directly into an existing drinking water treatment plant or distribution system

What is Advanced Water Purification?



AWP Program Components



AWP Rulemaking Timeline



Aquifer Water Quality Standards



Aquifer Water Quality Standards (AWQS)

- What are AWQSs?
 - Maximum contaminant levels, established for aquifers in the state of Arizona for the protection of drinking water usage and public health.
- How are AWQSs used?
 - Aquifer Protection Permits
 - Remediation Programs
 - WQARF
 - VRP
 - Underground Storage Tanks



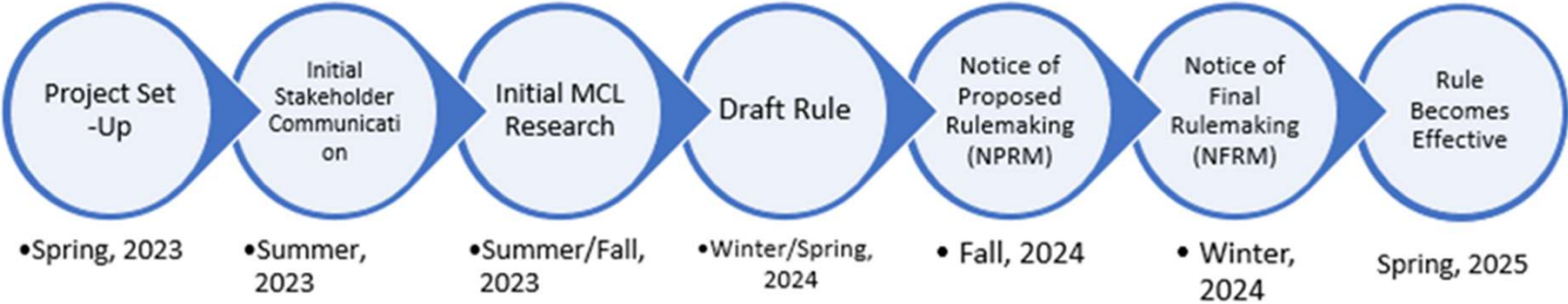
What Standards Need to be Updated?

Pollutant	AWQS	MCL
Arsenic	0.05 mg/L	0.01 mg/L
Bromate	None	0.01 mg/L
Chlorite	None	1 mg/L
Haloacetic Acids	None	0.05 mg/L
Microbiological Contaminants	A.A.C. R18-11-406(F)	40 CFR 141.63(C)
Total Trihalomethanes	0.1 mg/L	0.08 mg/L
Uranium	None	30 µg/L

Rulemaking Update

- Notice of Proposed Rulemaking (NPRM) submitted to Secretary of State's Office - October, 2024
- 30 - day Comment Period
- Currently developing Notice of Final Rulemaking (NFRM)
- Submit to the Governor's Regulatory Review Council - March 18, 2025

AWQS Rulemaking Critical Path



Impaired Waters Identification Rule (IWIR)



Impaired Waters Identification Rule (IWIR)

Established in 2002 | *Stakeholder
Engagement will soon start*

Recommended updates:

- Eliminate language no longer applicable
- Align *E. coli* assessment requirements with other states
- Add impairments for Fish Consumption
- Eliminate the minimum sample requirement in favor of statistical analysis
- Utilize Narrative Standards for impairment decisions



Total Maximum Daily Loads



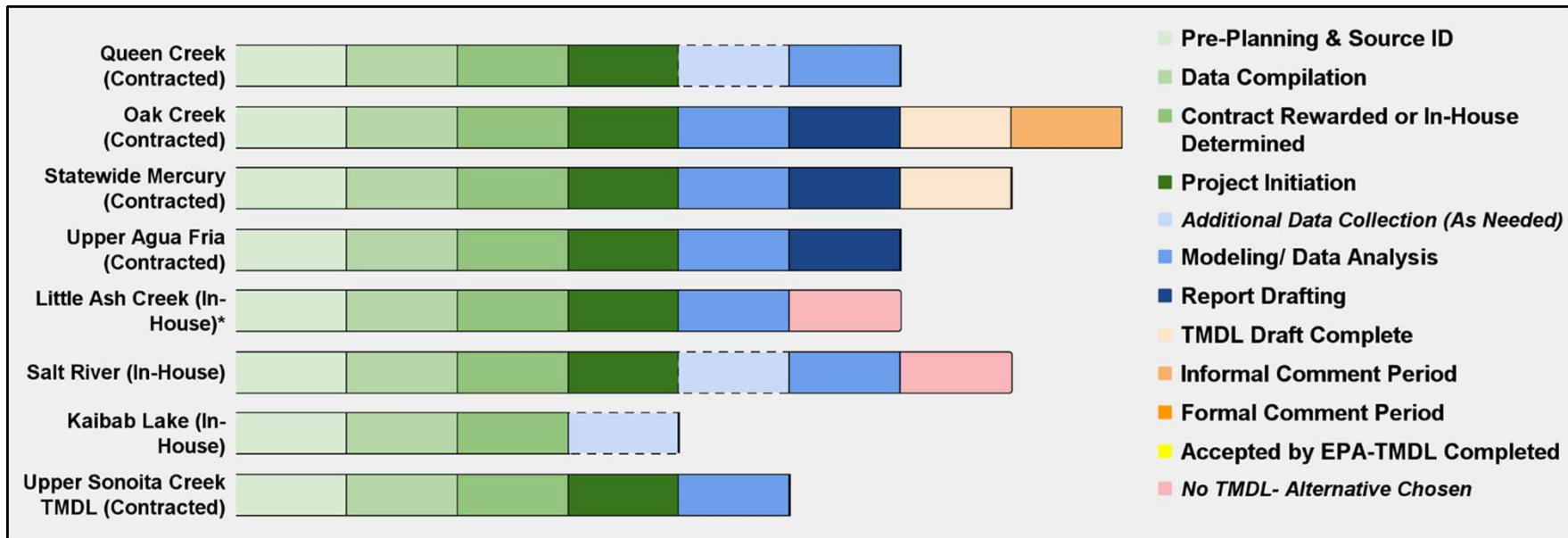
TMDLS



azdeq.gov/wqd-tmdl-process-progress



TMDL Phase Progression



azdeq.gov/wqd-tmdl-process-progress

Questions?

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Waste Programs Division Update

Julie Riemenschneider
Director of Waste Programs Division

Waste Programs Division

Underground Storage Tanks
Solid & Hazardous Waste
Remedial Projects

Underground Storage Tanks



Underground Storage Tank (UST) Revolving Fund Update

- On June 18, 2024, Arizona House Bill 2897 (Chapter 209) was signed into state law.
- This bill transferred \$20 million from the UST revolving fund to the state general fund.
- Due to this funding transfer, the UST program had to modify the level of financial assistance;
- ADEQ has contracted for an Actuarial Analysis of the Fund.



UST Financial Assistance Program Impacts for Fiscal Year 2025

ADEQ has made the following changes to the UST programs

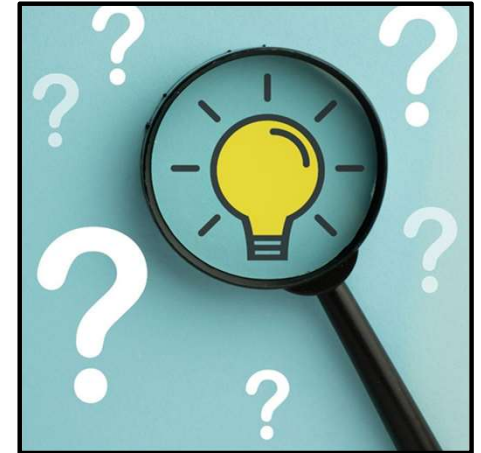
- Implementing prioritization for the Corrective Action Preapproval Program
- Reducing work in the State Lead Corrective Action Program
- Suspending acceptance of new applications for the Tank Site Improvement Program (TSIP)
- Continuing suspension of the State Lead Noncorrective Action Program

Updated information and forms: azdeq.gov/USTProgram



UST Corrective Action Preapproval Program Prioritization

- As of February 2025, 105 facilities (52% of facilities with an open release) are using the preapproval program
- The funding is approximately \$14.6M; however, the amount in the corrective action allocation for FY25 is \$6.7M.
- In response to the reduced funding, ADEQ has updated the associated forms, internal processes, and website.
- Preapproval Program information:
azdeq.gov/ust/preapproval-program
- FAQs:
azdeq.gov/ust-preapproval-program-faqs



Solid & Hazardous Waste



Solid Waste Fees

- Authorizing legislation was signed April 9, 2024
- Fees were effective on Jan. 1, 2025
- Updated existing fees
- Established 16 new fees
- Engagement process was undertaken with 12 stakeholder meetings leading up to the public hearing



Recycling

Education/Outreach

- Recycle Myers video series
- Recycling Locator/Dashboard on ADEQ website

ADEQ Recycling Grant Program

- Awarded \$950,000 to 12 grant projects in FY24 to a university, a high school, 4 cities, 6 other non-profits
- Hoping for FY26 Recycling Grant Program appropriation



Solid Waste Infrastructure for Recycling Grant

- Solid Waste & Materials Management Plan
 - Public input meetings in 2024, over 150 comments received
 - Comments are driving next round of industry/economic development workshops covering 7 material streams
 - Anticipated May/June 2025
 - In coordination with ASU



Pollution Prevention (P2)

New simplified reporting guidance for facilities in the P2 Program:

- Process flow
- User guides
- Templates



BIL P2 Automotive Maintenance and Repair Grant

- Bilingual training portal for automotive facilities to identify and implement source reduction activities
- 5 sections with videos and supplemental guidance



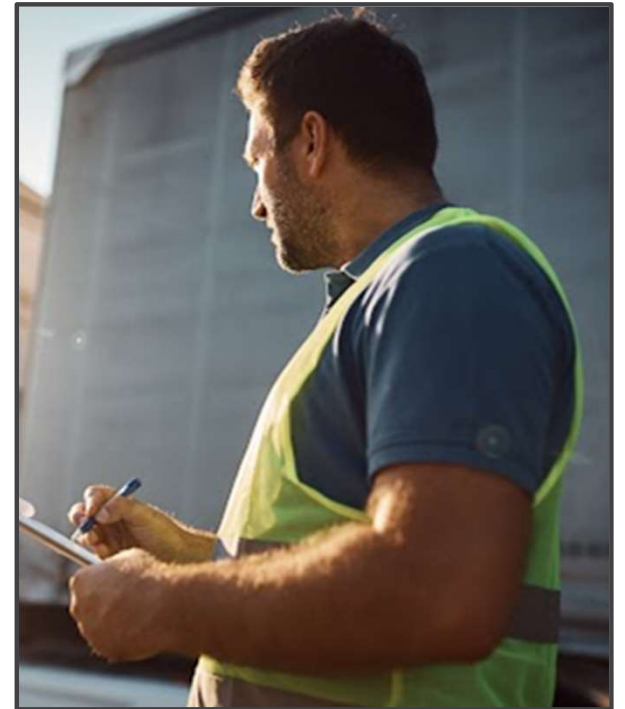
Hazardous Waste

EPA's third rule regarding e-Manifest was effective Jan. 22, 2025.

Highlights include large and small quantity generators requirement to register in RCRAInfo to:

- Access final signed manifests from receiving facilities
- Submit exception reports electronically (beginning on Dec. 1, 2025)

Small quantity generator re-notifications are due on Sept. 1, 2025 through myDEQ.



Remedial Projects



Brownfields

- Program expansion continues
- Increased grant awards over last 5 years to \$4.4M
- 45 Projects for FY25: phase I, II and clean up
- Established the Brownfields UST Orphan Site Program



Water Quality Assurance Revolving Fund (WQARF)

- **48th Street & Indian School Road**
Proposed Remedial Action Plan (PRAP) completed
- **West Central Phoenix - East Grand Avenue**
Record of Decision completed
- **56th Street & Earll Drive**
PRAP has 90-day public comment in March 2025



Voluntary Remediation Program (VRP)/CERCLA

- **Clarkdale Residential Town Cleanup**
Completed, 597 properties remediated
- **Clifton Residential Town Cleanup**
Completed, 526 properties remediated



Thank you!

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Questions?

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