



Texas Voluntary Marginal Conventional Well Plugging Program (TxMCW)

Katy Drake

Air Grants Division

Environmental Trade Fair 2025

Agenda

- Introduction & Program Background
- Definitions & Key Concepts
- TxMCW Overview & Timeline
- Texas Wells & Plugging Process
- Well Prioritization Plan
- Methane Measurement Plan
- Stakeholder Engagement
- Current Status & Next Steps



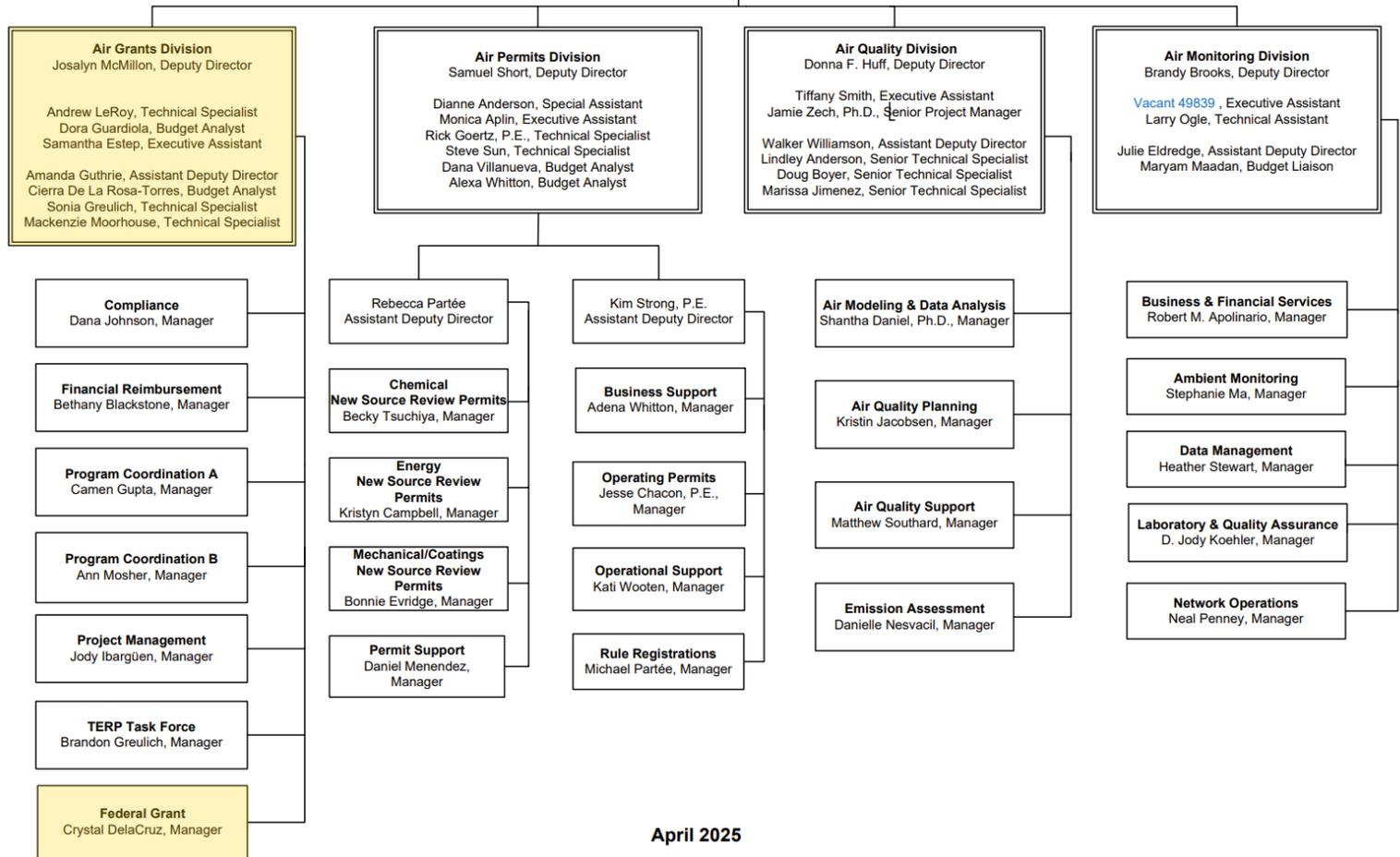


Introduction & Program Background

Cory Chism, Director

Beryl Thatcher, Special Assistant
 Debbie Maldonado, Executive Assistant
 James Nolan, Technical Specialist
 Kasey Savanich, Project Manager
 Chinenye Chinwego, Data Analyst
 Loren Sammon, Budget Liaison

**OFFICE OF AIR
 Fiscal Year 2025
 Positions 595**



April 2025

Cory Chism, Director

Beryl Thatcher, Special Assistant
Debbie Maldonado, Executive Assistant
James Nolan, Technical Specialist
Kasey Savanich, Project Manager
Chinenye Chinwego, Data Analyst
Loren Sammon, Budget Liaison

Air Grants Division

Josalyn McMillon, Deputy Director

Andrew LeRoy, Technical Specialist
Dora Guardiola, Budget Analyst
Samantha Estep, Executive Assistant

Amanda Guthrie, Assistant Deputy Director
Cierra De La Rosa-Torres, Budget Analyst
Sonia Greulich, Technical Specialist
Mackenzie Moorhouse, Technical Specialist

Federal Grant

Crystal DelaCruz, Manager

Air Grants Division (AGD)

Also administers:

- Texas Emissions Reduction Plan Program (TERP)
- Texas Volkswagen Environmental Mitigation Program (TxVEMP)



Inflation Reduction Act (IRA) Methane Emission Reduction Program (MERP): Mitigating Emissions from Marginal Conventional Wells (MCWs)



WHO: EPA, DOE

WHAT: \$134.1M in grant funding

WHEN: December 2023 + 5 years

WHERE: Texas

WHY: Reduce methane emissions

HOW: Voluntary MCW closures



Definitions & Key Concepts

Definitions

- Conventional Well
 - Vertical oil and gas well
- Marginal Conventional Well (MCW)
 - ≤ 15 barrels of oil equivalent per day (BOED), or
 - ≤ 90 thousand cubic feet (Mcf) of gas per day
(*1 BOE = 6 Mcf*)
 - Known owner or operator
 - Can be producing or idle

MCWs vs. Orphaned Wells

- Known vs. unknown owner or operator
- Railroad Commission (RRC) tracks and plugs orphaned wells
 - Funding from Infrastructure Investment and Jobs Act (IIJA)
 - Only wells on state-owned or privately-owned land in Texas

Methane

- Gas comprised of carbon and hydrogen
- Greenhouse gas that traps heat
- Can worsen health conditions
- Matters on a personal level



Volatile Organic Compounds (VOCs)

- Chemicals with:
 - High vapor pressure
 - Low water solubility
- Precursors to ground-level ozone
- Can contaminate groundwater
- Can cause short- and long-term health effects

Hazardous Air Pollutants (HAPs)

- Known or suspected to cause:
 - Cancer
 - Reproductive effects
 - Birth defects
 - Immune system damage
 - Adverse environmental effects
- Benzene, toluene, ethylbenzene, and xylene (BTEX)
- Hydrogen sulfide (H₂S)

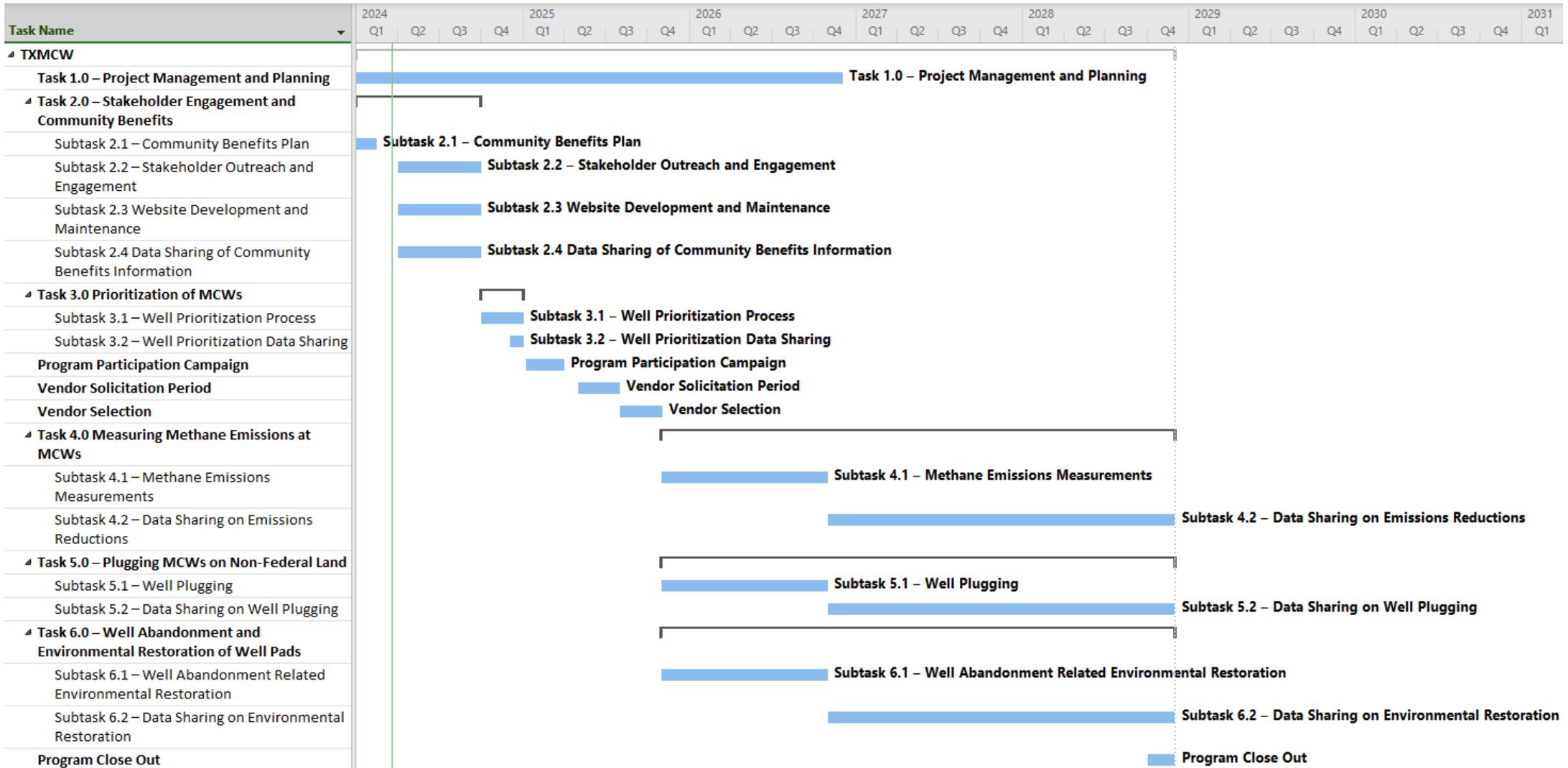


TxMCW Overview & Timeline

TxMCW Overview

- Voluntary plugging and abandonment of marginal conventional wells (MCWs)
- Goals
 - Plug MCWs to mitigate environmental pollutants
 - Measure methane emissions
 - Support environmental restoration
- Public website: www.txmcw.org

TxMCW Program Timeline



Tasks 1 and 2

- **Task 1:** Project Management and Planning
- **Task 2:** Community Benefits Plan
 - **Subtask 2.1:** Community Benefits Plan
 - **Subtask 2.2:** Stakeholder Outreach & Engagement
 - **Subtask 2.3:** Website Development and Maintenance
 - **Subtask 2.4:** Data Sharing of Community Benefits Information

Task 3: Prioritization of MCWs

- **Subtask 3.1: Well Prioritization Process**
- **Subtask 3.2: Well Prioritization Data Sharing**

Program Participation, and Vendor Solicitation and Selection

- Program Participation Campaign
- Vendor Solicitation Period
- Vendor Selection Period

Task 4: Measuring Methane Emissions at MCWs

- **Subtask 4.1: Methane Emissions Measurements**
- **Subtask 4.2: Data Sharing on Emissions Reductions**

Task 5: Plugging MCWs on Non-Federal Land

- **Subtask 5.1: Well Plugging**
- **Subtask 5.2: Data Sharing on Well Plugging**

Task 6: Well Abandonment and Environmental Restoration of Well Pads

- **Subtask 6.1:** Well Abandonment Related Environmental Restoration
- **Subtask 6.2:** Data Sharing on Environmental Restoration

Program Close Out Phase

- Wrap up any remaining activities
- Share final data

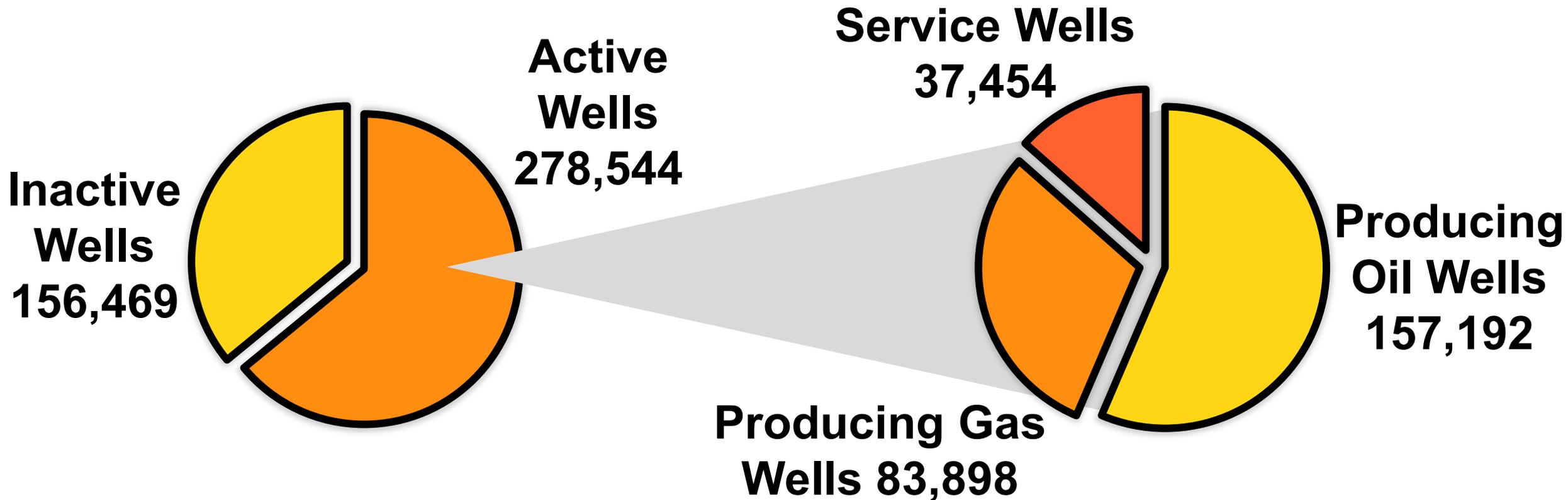


Texas Wells & Plugging Process

Oil and Gas Wells in Texas

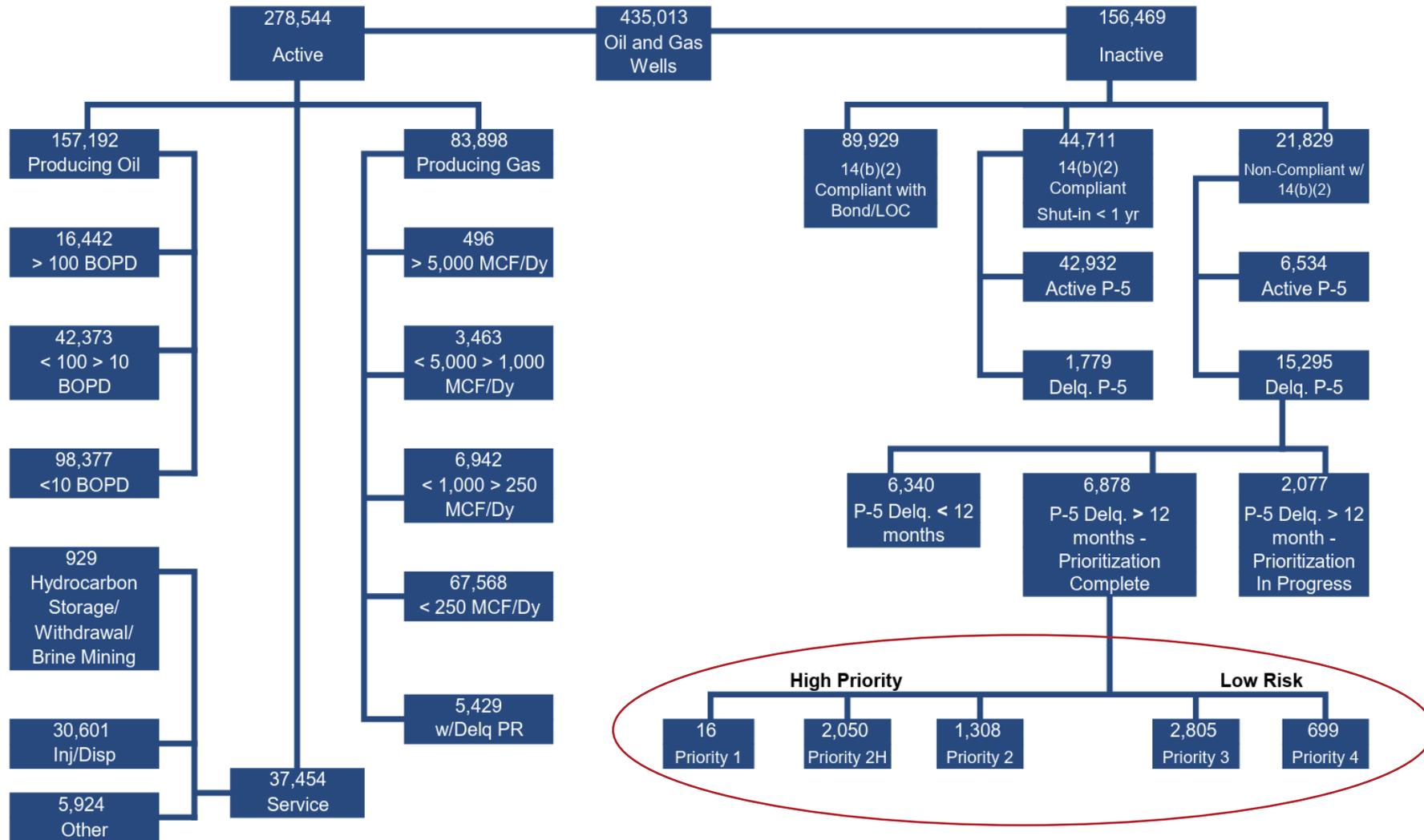
As of March 31, 2025

435,013 Oil and Gas Wells



Wells Monitored by the Railroad Commission

As of March 31, 2025



High Priority & Low Risk Wells



Well Plugging and Abandonment

- Railroad Commission requirements:
 - Notice and Supervision
 - Review and Approval
 - Cementing
 - Methods
 - Additional Requirements
 - Post-Plugging

TxMCW Plugging & Abandonment Activities

- Preparation of well pad
- Removal of well bore casing
- Placement of cement plugs
- Excavation around well head and well capping before surface restoration
- Support of activities necessary for plugging



Well Prioritization Plan

Well Prioritization Plan

- Goal
 - Minimize methane and other environmental pollutants
- Criteria
 - Prioritize wells with higher methane emissions
 - Production rates
 - Number of wells by owner
 - Human health impacts
 - Water quality and flood resilience
- Weighted criteria imported into PRIMO tool

What is PRIMO?

- Free and open-source software
- Decision-support tool
- Developed by DOE's National Energy Technology Laboratory (NETL)
- Designed to support MERP



PRIMO Modular Capabilities

1

identifying **high-priority** marginal conventional wells (MCWs)

2

designing **efficient** and **impactful** plugging and abandonment (P&A) projects

3

comparing competing P&A projects **quantitatively**

How PRIMO Works

- Users provide well data, site characteristics, and program provisions
- Users specify ranking priorities and “ideal” projects
- PRIMO returns specific recommendations for candidates



Methane Measurement Plan

Methane Measurement Plan

- Measurement of methane emissions prior to plugging
- Approaches
 - Qualitative
 - *Must use established survey*
 - Quantitative
 - *Minimum detection limit (MDL) of less than 100 grams/hour (g/h)*
- Verify plugged wells are no longer emitting methane

Qualitative Methane Measurement





Stakeholder Engagement

Stakeholder Engagement



Texas has a multitude of marginal conventional wells



TCEQ participates with stakeholders



Air Grants Division hosts in-person and online events



TxMCW staff engages with MCW stakeholders



The program is conducting outreach efforts

Grant Development & Award Team

- Team Leader
- Work Leader
- Grant Manager
- 2 Grant Specialists
- 2 Contract Specialists
- 2 Financial Analysts
- Program Specialist

Federal Grant Section

- Section Manager
- Budget Analyst
- Systems Analyst
- Web Administrator
- Engineer

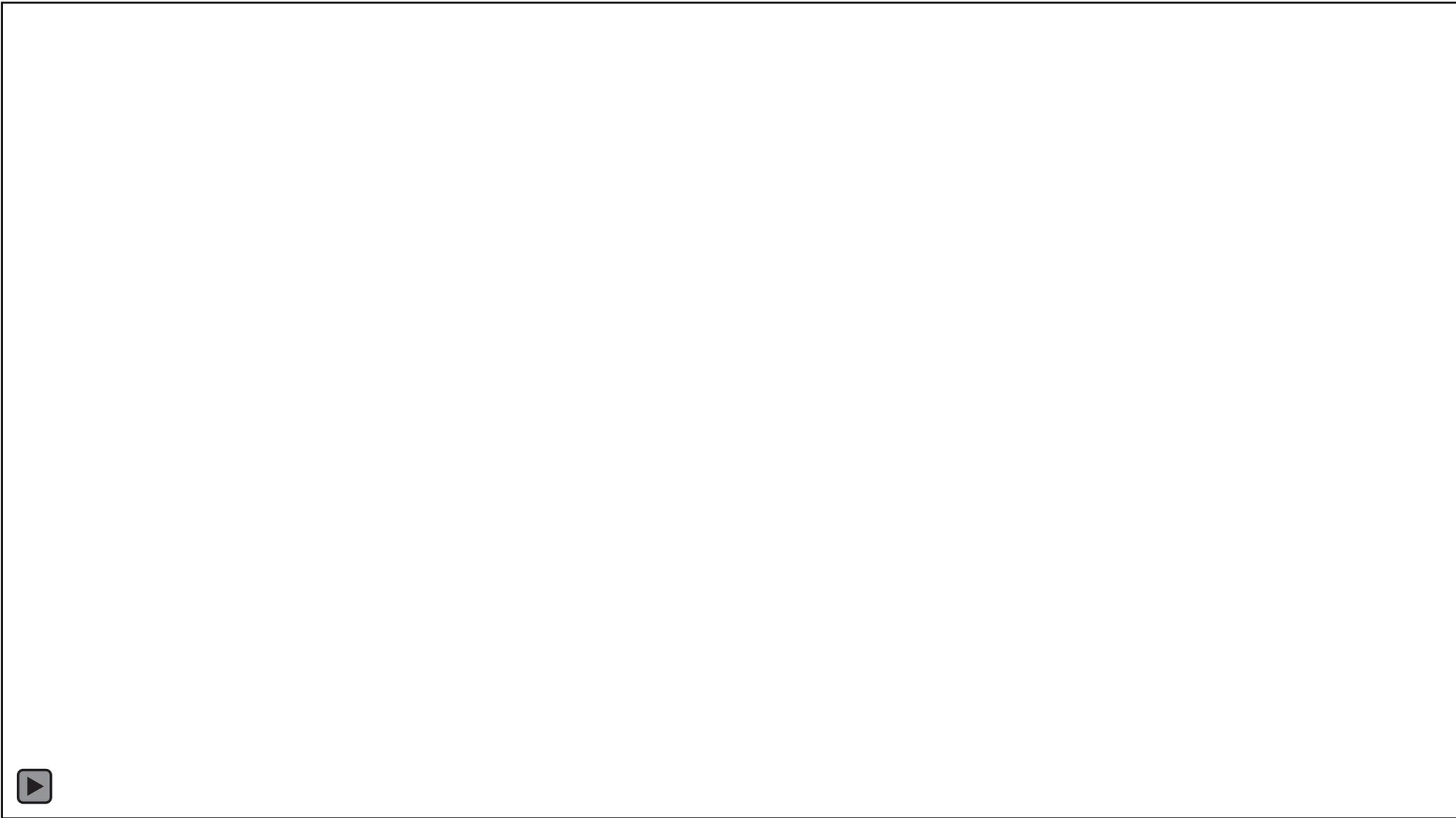


Current Status & Next Steps

Current Status

- Program Launch
- Outreach Efforts
- What's Next





Stay in Touch



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