



UNDERGROUND INJECTION CONTROL

2020 STATE UIC PROGRAM OUTLINE

OUR MISSION and VISION

The Arizona Department of Environmental Quality's (ADEQ's) mission is to protect and enhance public health and the unique environment in Arizona. To achieve this, ADEQ administers the state's environmental laws and delegated federal programs to prevent pollution of the air, water and land, and to ensure cleanup when pollution occurs.

ADEQ's vision is to be the No. 1 state in the nation in:

- Balanced, leading edge environmental protection through
- Technical and operational excellence, and
- Radical simplicity for customers and staff.



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EXECUTIVE SUMMARY

With a record of improved permit processing and return-to-compliance timeframes, ADEQ is pursuing the development and administration of a state underground injection control (UIC) program. The value we can provide to the regulated community, while protecting public health and Arizona's unique environment, includes:

A PROVEN RECORD | ADEQ has primacy over 10 federal permitting programs authorized and overseen by the U.S. Environmental Protection Agency (EPA). Over that last decade, we have seen reduced permitting time frames due to process improvement while maintaining our commitment to robust environmental protections.



**89 DAYS REDUCED TO
SAME-DAY COVERAGE**

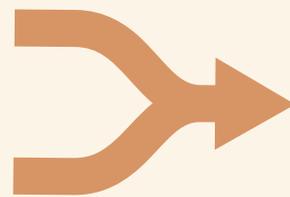


**73.6% PERMITTING
TIME REDUCTION**



**2 to 4 DAYS REDUCED
TO INSTANT COVERAGE**

SIMPLIFIED CUSTOMER EXPERIENCE | ADEQ will be able to provide both UIC and Aquifer Protection Permit (APP) coverage, and simplify reporting processes and compliance efforts for permittees.



IMPROVED
ACCOUNTABILITY

ROBUST COMPLIANCE ASSISTANCE & ENFORCEMENT | With ADEQ as the local authority, we will be able to partner with permittees to protect underground sources of drinking water, facilitating:



**ENVIRONMENTAL
CORPORATE
STEWARDSHIP**



**TECHNICAL EXPERTISE
TO ASSIST
WITH COMPLIANCE**



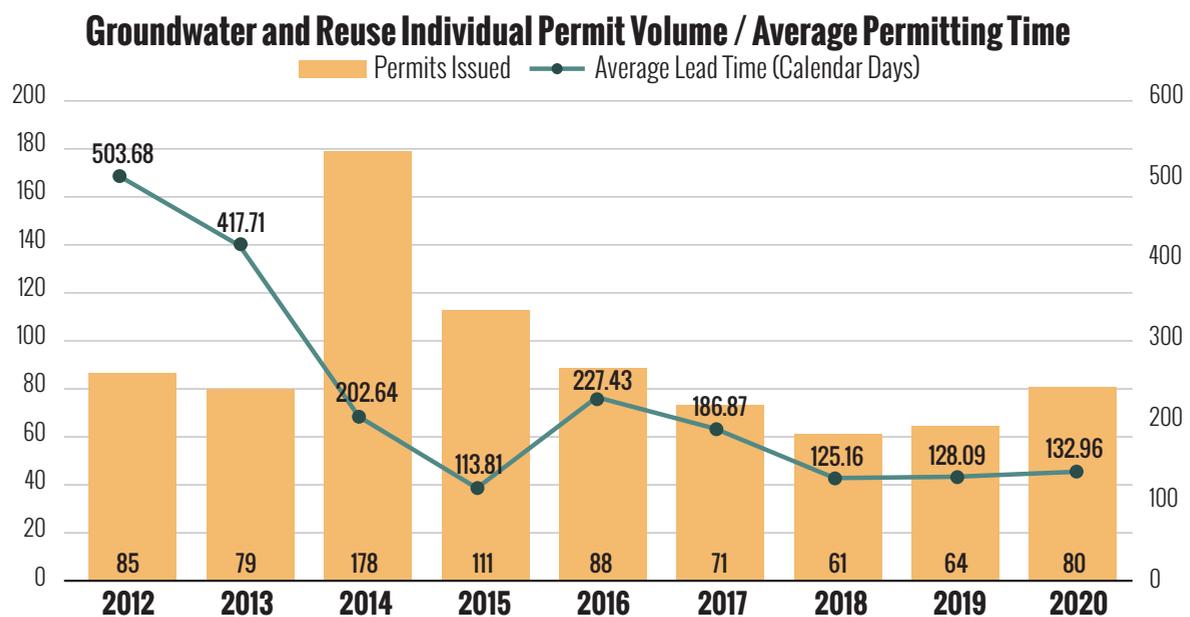
**FASTER
RETURN
TO COMPLIANCE**

WHY PURSUE PRIMACY?

ADEQ has had a long-standing requirement in statute to pursue a UIC Program.¹ Currently the program is administered by EPA; customers pursuing projects requiring EPA permit coverage under the UIC program also require additional groundwater protection permits from us.

Arizona is one of the few states that has not obtained primacy for at least some portion of the UIC program. EPA has approved UIC primacy programs in 41 states. The types of UIC well classes regulated by each state varies.

Our alignment to the Arizona Management System over the past 8 years has reduced waste in the agency and helped us improve services to our customers, furthering our mission to protect and enhance public health and the environment of Arizona.² Since 2012, our Water Quality Division has achieved a 73.6 percent reduction in APP time frames.



ADEQ’s commitment to process improvement, proven ability to reduce and maintain permitting time frames, proximity to the permitted wells, and our robust compliance assistance programs make the State’s acquisition of Underground Injection Control a logical undertaking.

¹ A.R.S. §49-203(A)(5) “[t]he director shall: adopt, by rule, the permit program for underground injection control, described in the safe drinking water act.” and A.R.S., Title 49. The Environment, Chapter 2. Water Quality Control, Article 3.3. Underground Injection Control Program: §§49-257 & 49-257.01, enacted 2018

² <https://azdeq.gov/lean>

WHAT IS UNDERGROUND INJECTION CONTROL?

The UIC program regulates injection wells that are used to place fluid underground into geologic materials ranging from deep porous rocks to shallow soils. When these geologic materials contain groundwater, they are called aquifers. Injected fluids may include stormwater, wastewater, brine (salt water), or water mixed with chemicals. By regulating injection wells, the UIC program protects aquifers that are underground sources of drinking water (USDWs).

UIC regulates six classes of injection wells. Classes I, II, III, and VI injection wells must be specifically permitted prior to construction and operation. There are extensive construction, operation, monitoring, and reporting requirements for these types of wells, and public participation is required for all proposed permits. Class V injection wells typically do not require permits to operate. However, these types of wells must be reported to EPA and must comply with requirements in rule. Finally, Class IV wells (used for hazardous waste injection) are generally prohibited under the federal program and would

WHO IS REGULATED?

Everyone who owns or operates an injection well is regulated by UIC. Arizona's program will closely follow the federal UIC program and will not change who is regulated under Arizona's program once primacy is approved by EPA.

As is currently the case with the federal UIC program, the vast majority of Class V wells will be authorized by rule under the state UIC program. Many of these Class V wells will also be regulated under our Drywell program (for stormwater disposal wells), APP program, the Oil and Gas Conservation Commission, or the Arizona Department of Water Resources' (ADWR's) Underground Storage Facility (USF) permit program. ADEQ seeks to harmonize and streamline regulatory reporting requirements across the state UIC program, APP, Drywell Registration, and other agency programs where possible. For example, we seek ways to ensure that registering a stormwater drywell under our drywell program, or obtaining an APP for any Class V UIC well, will also fulfill UIC inventory reporting requirements for Class V wells.

REGULATED FACILITIES IN ARIZONA

The state has many tens of thousands of Class V injection wells. Most are used to dispose of stormwater, while a smaller number are used to recharge aquifers with treated effluent. None of these are currently permitted under UIC, but are instead authorized by rule.

Arizona has three in situ mines that use injection wells, all of which have received UIC permits from EPA. These wells are used to inject fluids into the subsurface to dissolve minerals (salt or copper). The fluids are then extracted from groundwater and then processed to obtain the minerals. One facility uses injection wells to mine underground salt. The other two facilities mine underground copper.

There are no permitted facilities in Arizona with Class I, II, IV, or VI wells.

PRIMARY FEDERAL & STATE PROGRAM DIFFERENCES

The National Historic Preservation Act (NHPA) is a federal statute intended to preserve historic and archaeological sites. NHPA mandates states to establish a State Historic Preservation Officer (SHPO). In Arizona, the SHPO administers the State Historic Preservation Act (a state statute), which is applicable to state agency action. Under an Arizona-administered UIC program, the National Advisory Council on Historic Preservation would not be involved in reviewing and commenting on a UIC permit application, as they would in a federally administered program. However, Arizona's SHPO would be involved in reviewing applications that indicate a threat to historic or archaeological sites. The Arizona UIC program has developed procedures in its permit process to adhere to the duties required in these laws.

The Endangered Species Act (ESA) is a federal statute that is intended to protect imperiled species. The ESA is applicable to federal actions, as well as any person or entity who "takes" a listed, endangered species. State UIC permittees will have to comply with the ESA without Section 7 consultation, which is available only through Federal agency authorizations. The Arizona UIC program has developed procedures in its permit process to adhere to the duties required in this law.

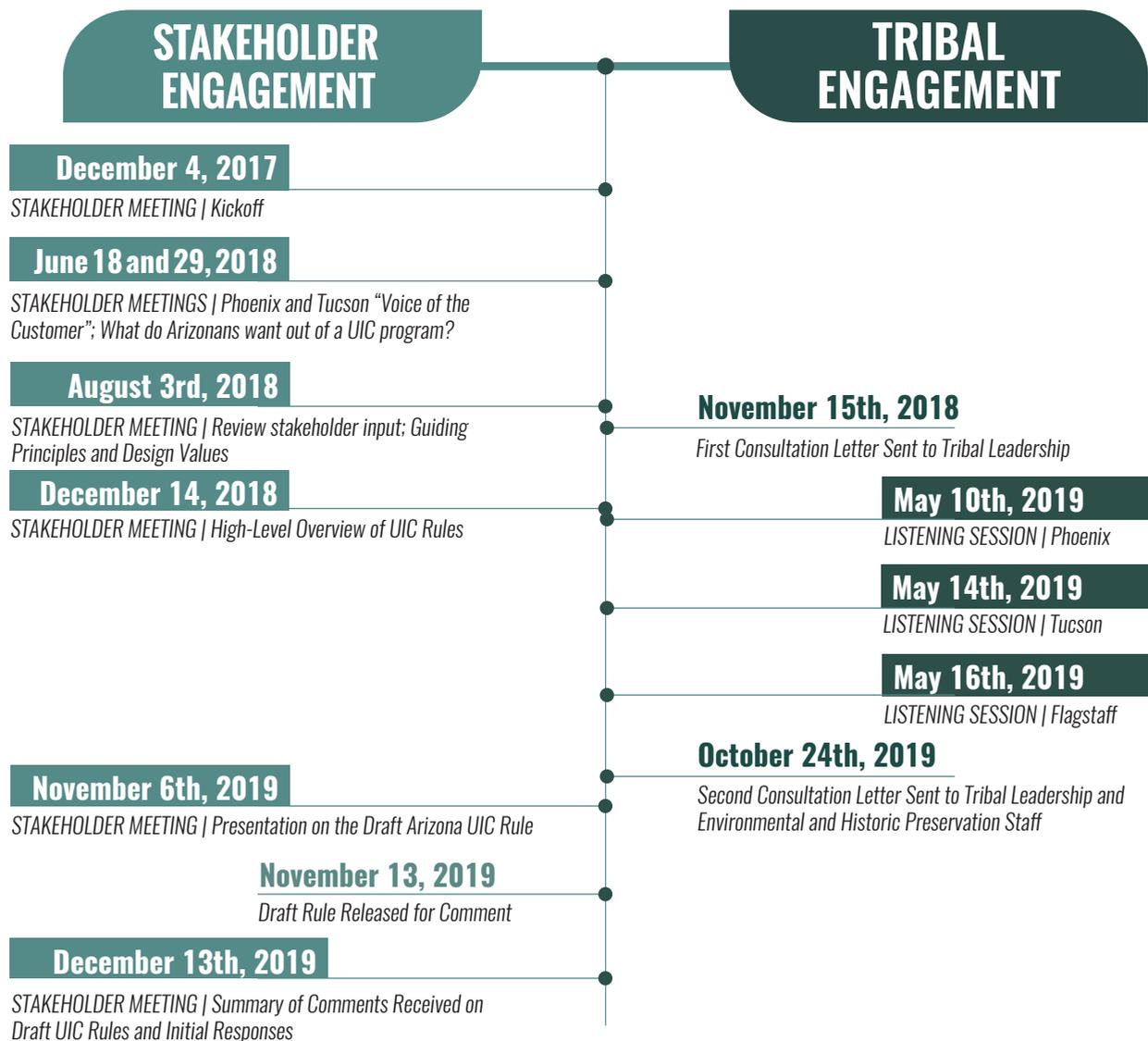
Arizona's UIC regulation will prohibit hazardous waste injection, which aligns with an existing prohibition in ADEQ's Hazardous Waste Management Rules. However, ADEQ UIC regulation will maintain the existing exception to this prohibition for Class IV remediation wells that are administered through the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).



RULEMAKING & STAKEHOLDER OUTREACH

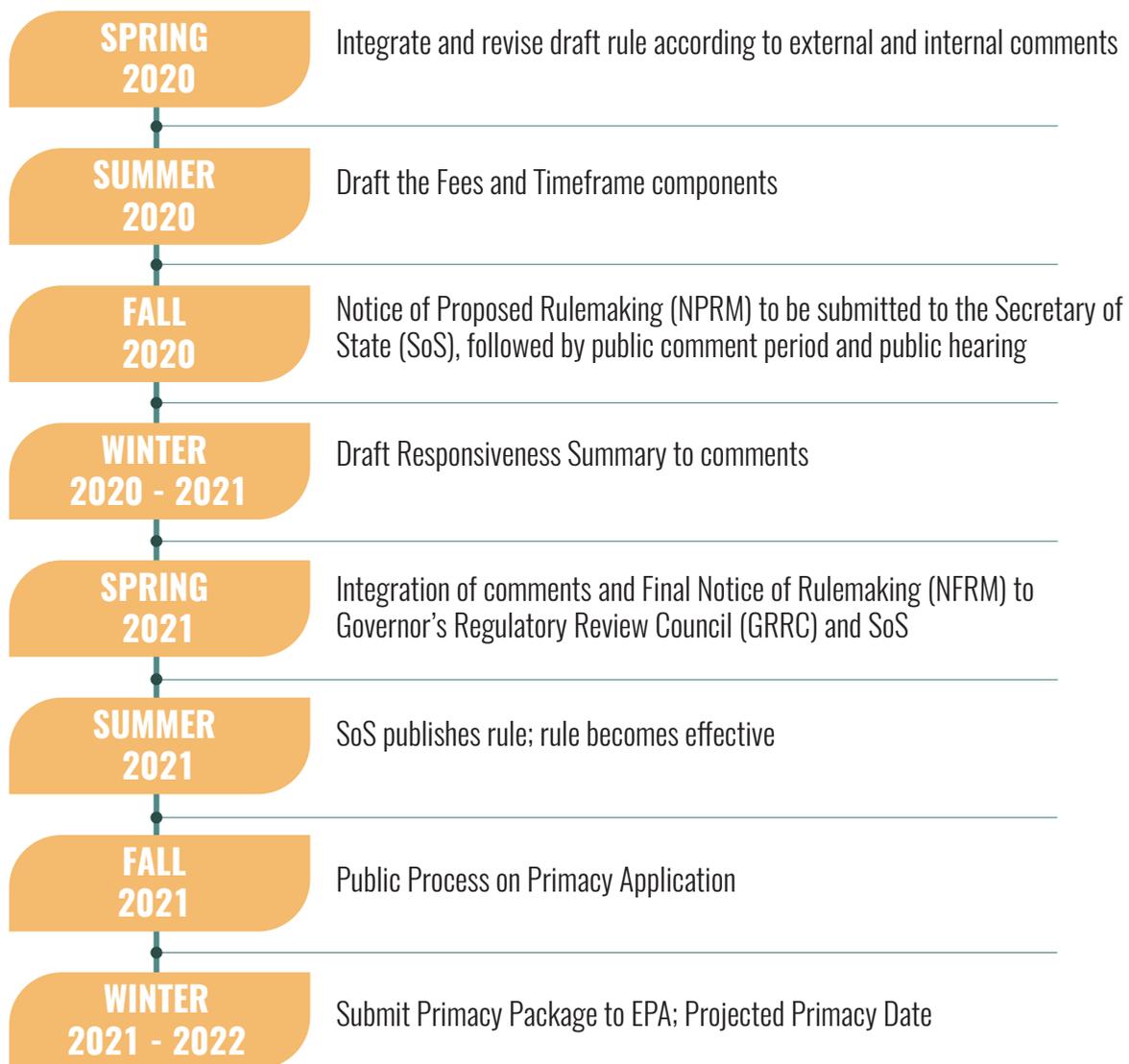
We have collaborated with stakeholders to design an innovative, effective UIC program for Arizona. We launched a community engagement program to hear from people throughout Arizona for the past three years. Upfront involvement by our stakeholders is critical to the agency’s success both in obtaining primacy and in building a streamlined and sustainable state UIC program. We will continue to look to stakeholders for direct advice and innovation in formulating solutions and incorporate the advice and recommendations into the decisions made to the maximum extent possible.

STAKEHOLDER AND TRIBAL ENGAGEMENT TIMELINE



Our next step in this process is to provide stakeholders with a new draft version of the state UIC rules that incorporates many of the changes and suggestions provided by stakeholders on the first draft. ADEQ is also working closely with EPA to ensure that the draft rules will satisfy state primacy requirements. ADEQ will also provide first drafts of Fee and Licensing Time Frames rules for stakeholder review.

RULEMAKING NEXT STEPS



PROGRAM INFORMATION

SUBMISSIONS REQUIRED FOR ADEQ PRIMACY

As a component of our primacy package submittal, a number of documents must be drafted and submitted to EPA and ultimately accepted or agreed upon for EPA to grant Arizona Primacy of the UIC program. The Code of Federal Regulations (CFR) at citation 40 CFR 145.22 lists the “Elements of a program submission” for “State Program Submissions,” under the Part, “State UIC Program Requirements”. Those required documents are listed as follows:

- A letter from Arizona’s Governor requesting program approval
- A complete program description describing how the state intends to carry out its responsibilities
- A statement from Arizona’s Attorney General on adequate authority to carry out the program
- Memorandum of Agreement
- Document capturing conditions and agreements between ADEQ and EPA.
- Applicable State statutes and regulations
- Pre-Program Submission Public Participation

TECHNICAL EXPERTISE

ADEQ will train, hire or contract for the technical expertise required to run the UIC program; we prefer to use a combination of internal training and new hires to staff the new program. In order to better understand the required technical expertise and staff complement of a future UIC program, ADEQ has consulted with multiple states with UIC programs. ADEQ estimates the need to hire at least two technical staff to execute the permitting and inspection functions of the program and at least one other technical staff to augment our current inspections team. Other new hires and current staff members would round out the administrative and support functions of the new program.

COST AND FUNDING

The cost of the program will come from technical staff, leadership supervision, training, travel and the cost of legal support from the Arizona Attorney General’s office. Technical staff will also support the Aquifer Protection, Reclaimed and Recycled Water programs; those costs will be borne by the customers of those programs. The cost of the UIC program is estimated to be approximately \$462,000 and will be borne by current and future permittees of the program. ADEQ expects that any federal funding received will pay for only a portion of the costs to run the state UIC program.

ADEQ’s UIC program will be funded by a combination of permitting fees and annual fees for those customers with permits. Arizona has only three facilities with individual permits for UIC; those sites will be subject to periodic inspection, potential compliance assistance and enforcement, as well as periodic reporting. Those annual fees could be calculated based on the number of installed or permitted wells, and/or the volume or frequency of injection. ADEQ will also evaluate the need for fees for facilities with permits that are authorized by rule.

ADEQ looks forward to receiving feedback and advice from our stakeholders and future UIC customers on the impact and structure of fees during the rulemaking process.

WHAT WILL THE ARIZONA UIC PROGRAM LOOK LIKE?

ADEQ envisions a state UIC program that is transparent, financially sustainable, radically simple for customers, and protective of Arizona's water supply. Key components of the future Arizona UIC Program are discussed below.

AUTHORIZATION BY RULE

The vast majority of wells regulated under the UIC program are Class V wells. Most (but not all) Class V injection wells are subject to multiple state authorities, such as dry well registration and Aquifer Protection Permits, in addition to the inventory requirements under the UIC program. ADEQ will seek ways to streamline the UIC inventory reporting requirements so that customers will be able to submit this information at the same time as they are submitting information for these other state program requirements. Under the state UIC program, ADEQ will have authority to issue UIC permits to certain Class V wells. In this circumstance, ADEQ will develop authority to exempt such permitted wells from APP requirements.

PERMIT PROCESS

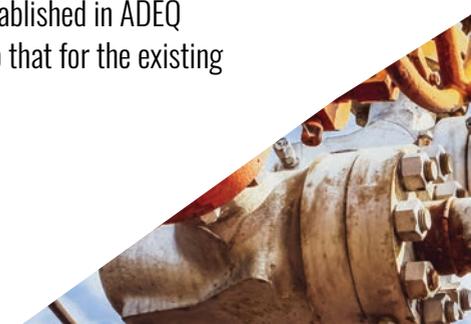
ADEQ anticipates issuing a limited number of permit modifications or new facility permits in any one year. Currently, ADEQ does not envision creating general permits. The following are key issues related to permits:

1. **PERMIT TYPES:** ADEQ will generally offer the same types of permits, with the same permit requirements, as the EPA. ADEQ is reviewing other state UIC programs to adopt best practices for application formats, permit language, and guidance to applicants.
2. **PERMIT CONDITIONS, MODIFICATIONS, TERMS, AND RENEWAL:** Permits will be issued, denied, modified, and conditioned pursuant to ADEQ's UIC Program rules. Due to Federal and State law requiring ADEQ to be no more, nor less stringent than the federal UIC program, permit requirements will not significantly change upon the granting of UIC primacy to Arizona. Permits will be issued either for a fixed term or for the lifetime of the facility, as is required under current EPA rule. ADEQ intends to provide permits with clear language, defined terms and a delineation of authorities for permit conditions.
3. **PERMIT APPLICATIONS, FORMS, AND ONLINE ACCESS**
 - a) **PERMIT APPLICATIONS AND TRACKING:** Applicants will need to initially apply for individual permits using forms transmittable via email. Issued permits will be publically available online through the ADEQ eMaps tool. Individual permits in-process will also be available on ADEQ's Permits in Process page. Applications will include all information required pursuant to ADEQ's UIC rules.

4. ADEQ intends to provide guidance to ensure that applicants can prepare a permit application as effectively and efficiently as practicable.
 - b) ONLINE ACCESS AND WEBSITE MAINTENANCE: ADEQ intends to maintain a state UIC program website. Preliminarily, the website will contain the following information and tools:
 - An overview of the state UIC program and its authorities
 - Applications
 - Public notices
 - Public hearing information
 - Links to appropriate informational resources:
 - Resources for Class V well owners regarding specific requirements and prohibitions in user friendly non-regulatory language
 - ADEQ eMaps tool for location tracking
 - Form to report environmental complaints
 - Forms for owner/operator reporting (ex. completion of construction, well rework, plugging and abandonment)
 - Online billing portal
 - Online portal for Class V well inventory reporting designed to minimize duplicate reporting with drywell registration or APP applications

4. LICENSING TIMEFRAMES: ADEQ is required to establish licensing timeframes (LTFs) for each type of license issued. LTFs specify the amount of time the agency has to either grant or deny a license or permit. The requirement to establish LTFs include Arizona's UIC program. In UIC, LTFs will be designed to account for different levels of complexity throughout the six classes. Additionally, LTFs will address EPA's role in the aquifer exemption review process, which is tied to certain permit applications.
 - a) EXPECTED ELAPSED TIMEFRAMES: As ADEQ has demonstrated in AZPDES, Aquifer Protection Permit (APP), and Air Quality Division permitting programs, the agency expects to outperform LTFs and will deliver permits as expeditiously as possible. ADEQ's goal is to issue all individual UIC permits within 180 calendar days.
 - b) EXPECTED LTFs: ADEQ will develop timeframes associated with each permit type, for different levels of permit complexity, and for permit modification similar to ADEQ's other individual permit programs. ADEQ is seeking information from EPA and several states regarding the elapsed and touch times these organizations experience in processing permit applications. ADEQ will establish administrative and substantive completeness timeframes and a separate LTF for minor modifications.

5. PUBLIC NOTICE: ADEQ will provide public notice and request for comments through rules established in the Arizona UIC Program rules, and in compliance with other public notice requirements established in ADEQ administrative rules. In short, ADEQ's public participation process will be very similar to that for the existing federal UIC permitting program, and for other permitting programs at ADEQ.



ADEQ will provide public notice and establish a minimum of 30 days public comment period. ADEQ will provide public notice both new permits and for modifications to permits. ADEQ will issue a public notice that 1) provides the draft permit and 2) where there is widespread public interest or other major issues, provides a fact sheet containing principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. When there is a significant degree of public interest in a draft permit, ADEQ will hold a public hearing. ADEQ will give a 30-day notice for the public hearing. ADEQ will provide a response to all comments received during the public comment period.

6. PERMIT TRANSITION FROM EPA: ADEQ will work with the EPA to:
 - ensure proper documentation of UIC permit applications that are pending at the time of state UIC program approval, subject to a memorandum of agreement (MOA) with EPA.
 - reduce duplication of review where possible under applicable state law, subject to the MOA with EPA.
 - transfer over and enforce permits previously issued by the EPA upon primacy, subject to the MOA with EPA.
 - transfer over and complete applications for new permits and modifications of EPA-issued individual permits that are “in-process”, subject to the MOA with EPA.
7. REPORTING: ADEQ will establish electronic formats for reporting groundwater monitoring compliance data similar to the current format for Self Monitoring Report Forms (SMRF) under APP. Initially ADEQ will provide forms for other types of reporting, such as for well completions and for plugging and abandonment. ADEQ will investigate electronic reporting of this information in the future.
8. COMPLIANCE AND ENFORCEMENT: ADEQ will establish a proactive compliance and enforcement program to verify permit conditions, mechanical integrity tests (MITs), and the efficacy of mitigation plans. MITs are used to determine if UIC well have leaks either internally or externally, and are a major tool in the UIC program to protect underground drinking water supplies. ADEQ will concentrate its efforts on compliance assistance and maintaining a dialogue with facilities to ensure that facilities remain in compliance. A proactive compliance and enforcement program, including inspections and timely resolution of violations, serves both the public and the environment and encourages good corporate stewardship. Upon obtaining primacy, ADEQ will serve as the compliance and enforcement agency for UIC and other environmental programs, allowing facilities to communicate with a single entity. This approach provides consistency in regulatory oversight across environmental programs. By establishing a broadly applicable and consistent enforcement program, ADEQ intends to encourage good corporate stewardship. ADEQ plans to create a robust inspection program of the Class V wells operating in the state. Furthermore, ADEQ plans to have a presence in well construction and mechanical integrity testing as necessary and as budget permits.

LOOKING AHEAD

We committed to conducting a robust stakeholder engagement process in development of the Arizona UIC Program. We recognize and appreciate the importance of what stakeholders and tribes bring to this program and will continue engagement with them. As components of the state program are drafted, ADEQ will seek stakeholder input as we prepare a final UIC primacy application for submittal to EPA.

We are aware of 8 UIC permits issued in Arizona since EPA promulgated the UIC regulations in 1980. ADEQ believes that there are a number of future opportunities that may increase the number of permits in the program. One future permitting opportunity may be for UIC Class I wells to dispose of brines. As the state grows, we must secure water supplies for Arizona's future. Arizona has an estimated 600 million acre-feet of brackish groundwater that potentially could be used to augment the state's water supply. Desalinization of brackish groundwater creates brine that must be disposed of properly and safely. One potential solution to disposal of the brine is through deep well injection below any usable groundwater. These types of wells will require permitting through the UIC program.

Other potential future permitting projects may be for Class VI carbon sequestration wells, and for brine disposal wells from helium, carbon dioxide, oil and gas, and potash extraction.

WE WANT YOUR FEEDBACK

After reviewing the Program Outline, please send us your feedback to uic@azdeq.gov. ADEQ values your input and hopes to determine if the state Underground Injection Control program described in this outline will retain or add value to the regulatory process and environment in Arizona. ADEQ would also like your input about potential gaps in the Outline that need to be addressed as the state moves forward designing a program.

Thank you!





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