

## **EPA Response to Public Comments on the Arizona Department of Environmental Quality's Class I-VI Primacy Application**

**Docket ID: EPA-HQ-OW-2025-0087**

On May 19, 2025, the EPA published a proposed rulemaking in the *Federal Register* (90 FR 21264) to approve the State of Arizona's application to implement a UIC program for Class I-VI injection wells within the State except on Indian lands. The proposal established a public comment period that closed on July 3, 2025. The EPA held a public hearing on June 25, 2025, that participants could attend virtually, as well as by phone. During the public comment period, the EPA received two oral comments and eleven written comments from individuals and stakeholders, the Gila River Indian Community, and interest groups such as the Ground Water Protection Council, the Grand Canyon Chapter of the Sierra Club, the Consumer Energy Alliance, the American Petroleum Institute, the American Mining Association, and the Arizona Chamber of Commerce and Energy. Each comment received on the proposed rulemaking was considered in the development of the final rule.

All comments are available as part of the public record and can be accessed through the EPA's docket (EPA-HQ-OW-2025-0087) at <https://regulations.gov>. The materials referenced in this response to public comments document are also available in the docket.

### **Comments Supporting the EPA's Action to Approve Arizona's UIC Primacy Program:**

*Commenters in support of Arizona's UIC program primacy approval stated that Arizona's UIC rules meet or exceed the EPA's UIC requirements, that ADEQ has conducted adequate outreach and engagement related to its UIC primacy application, and that the State's request is consistent with the principles of cooperative federalism outlined in the five pillars of the EPA Administrator's Powering the Great American Comeback Initiative. They also stated that Arizona's primacy application shows that the State takes program compliance and enforcement seriously. They stated that Arizona is heavily invested in protecting its drinking water sources, as shown by how Arizona water providers use Managed Aquifer Recharge (MAR)—a water management technique to store available freshwater underground and which often utilizes UIC Class V injection wells—and by ADEQ's current oversight and administration of the Arizona Aquifer Protection Permit Program. They commented that ADEQ has a better understanding of State and local needs, is more readily accessible to stakeholders, has intimate knowledge of historic UIC operations, has extensive knowledge and understanding of the State's aquifers and geology, and has demonstrated a strong commitment to transparency through various stakeholder engagements. Further, commenters stated that with ADEQ's dedicated UIC staff positions, the State has the capacity for timely review and action on UIC permit applications and rule authorization requests. Lastly, commenters note that the State's UIC program includes licensing time frame requirements for ADEQ, which provide predictability and certainty with respect to the timing of permit decisions.*

**EPA Response:** The EPA agrees with these commenters that ADEQ has the expertise, experience, and financial and technical capacity to implement and enforce an effective UIC

program in consideration of the State's natural resources and anticipated permitting needs. The EPA also agrees that Arizona's primacy application is consistent with the principles of cooperative federalism and meets the requirements of the SDWA, including the public engagement requirements at 40 CFR 145.31.

For these reasons and based on a thorough evaluation of Arizona's primacy application, the EPA is approving Arizona's UIC primacy program.

### **Comments Opposing the EPA's Action to Approve Arizona's UIC Primacy Program:**

*Commenters listed concerns about ground water protection, transparency, enforcement and public accountability, and risks associated with Class VI wells and carbon sequestration projects. Additionally, commenters raised concerns about Arizona's capability and capacity to implement the UIC program.*

**EPA Response:** The EPA agrees with the commenters that robust regulatory protection is important to prevent endangerment of underground sources of drinking water (USDWs). Both the federal and State's UIC regulations include requirements that are designed to limit the risks associated with each injection well class. These regulations include requirements for proper siting, construction, operation, monitoring, plugging of injection wells, and long-term project management and post-injection site care. These requirements protect USDWs and reduce the potential for adverse health effects due to USDW endangerment. The EPA compared Arizona's UIC regulations to the federal UIC regulations at 40 CFR Parts 124, 144, 145 and 146 to assess and confirm that the State's regulations are as stringent as the federal regulations.

The EPA has determined that Arizona's UIC program meets all applicable requirements for primacy approval under SDWA section 1422. The State has satisfactorily demonstrated that it is capable of administering a UIC program in a manner consistent with the SDWA and all applicable UIC regulations. Further, Arizona has requirements for Class VI wells that are as stringent as the EPA's Class VI regulations, including requirements for permitting, siting, construction, operation, injection, and post-injection site care and site closure that are tailored to address the unique nature of geologic sequestration.

The EPA disagrees that ADEQ lacks the capacity, resources, or program implementation track record to oversee an effective UIC program and that ADEQ lacks expertise to address the risks associated with carbon sequestration projects. ADEQ has demonstrated it has the capacity to implement the UIC program. In the Program Description (PD) (Section IV), ADEQ described available in-house and contractor expertise to effectively perform the duties required to oversee its UIC program, including geologists, hydrogeologists, environmental/reservoir modelers, geochemists, well engineers, and log analysts/experts. ADEQ also has staff available to perform well inspections, verify owner or operator compliance with UIC requirements, and carry out

enforcement actions when needed. Along with the technical experts described above, ADEQ's Groundwater Protection Section's (GPS) Inspections and Compliance Unit, the GPS's Legal Specialist, the Office of Administrative Counsel and, if necessary, the Arizona Attorney General's Office will provide support. Where additional skills or capacity are needed, ADEQ has access to contractor support (PD, Section III.A).

ADEQ has the capacity and expertise to perform inspections and take enforcement actions when violations occur. Arizona's primacy application describes a robust compliance monitoring program that includes reviewing plans and reports submitted by UIC facility owners or operators; investigating complaints; and conducting site inspections, annual inspections, and compliance follow-up inspections (PD, Section IX.A). The state's program also includes enforcement procedures for pursuing and resolving minor and major program violations (PD, Section IX.B).

ADEQ staff have permitting experience and a known track record for effective program implementation from overseeing its Aquifer Protection Permit (APP) program. From administering the APP program, ADEQ has gained extensive experience in permitting Class III wells, particularly those associated with in situ copper and salt mining activities, and Class V wells, including aquifer storage and recovery wells and onsite wastewater treatment facilities. ADEQ's program description also includes annual staff training to maintain UIC expertise (PD, Section V).

ADEQ has demonstrated it has the resources to run an effective UIC program. For the initial years after obtaining primacy, ADEQ estimates that it will cost \$461,500 annually to run the State's UIC program. According to ADEQ, this estimation will cover annual program costs for UIC permit specialists; compliance monitoring, including inspections and enforcement activities; data management; and administrative activities, along with staff training, travel, and attorney general office support (PD, Section V). The program's initial sources of funding will include billing for permitting and administrative services, annual fees from existing permits, technical review fees, well installation fees, Class V inventory fees, and an EPA primacy grant (PD, Section VI). Together, the total projected revenue is \$574,800, which exceeds ADEQ's anticipated initial expenses. ADEQ expects the UIC program to grow; as such, the fees associated with the UIC program in A.A.C. Title 18, Chapter 14, Article 1 were designed to generate funds as applications are received, allowing ADEQ to hire staff on an as-needed basis.

The EPA agrees with the commenters that transparency, enforcement, and public accountability are important. As noted above, ADEQ has satisfactorily demonstrated that it has the capacity and expertise to perform inspections and take enforcement actions when violations occur. Arizona's regulations contain public notice provisions that meet the requirements of 40 CFR 145.11(a)(28), including requirements to inform the public of all pending permitting decisions by preparing fact sheets, holding public hearings when requested, and providing public notice in newspapers and posting permit application materials and draft permits on the internet (A.A.C. R18-9-

C620(D)(1)(b) and PD, Section VII.C). ADEQ will also deliver public notices to any affected federal, state, Tribal, or local agency, or council of government (PD, Section VII.C). To achieve transparency and accountability, ADEQ will (in addition to meeting the public notice requirements discussed above) make reports of enforcement activities accessible to the public (PD, Section IX.B).

The EPA disagrees that ADEQ does not have online tools and information systems to adequately administer and oversee a UIC program. ADEQ includes a UIC Data Management position in its annual program costs. ADEQ will utilize its existing e-Permitting Online Portal to manage applications for Classes I – V wells and will have access to the EPA’s database for Class VI applications (PD, Section VII.B). Moreover, through a Class VI primacy grant, ADEQ is developing a new data system to manage Class VI applications and permits. Lastly, ADEQ has an online form on its website to submit environmental complaints (PD, Appendix 6).

Accordingly, the EPA has determined that Arizona’s UIC program meets all applicable requirements for primacy approval under SDWA section 1422, and the State has satisfactorily demonstrated that it is capable of administering a UIC program in a manner consistent with the SDWA and all applicable UIC regulations.

*Commenter stated that the EPA does not have the authority to “delegate” UIC program primacy to Arizona and is acting in contradiction to its core mission. Additionally, the commenter stated that the proposed rulemaking violates the principle of equal state and citizen rights, lacked international considerations, and raised due diligence concerns regarding the EPA’s review of Arizona’s primacy application and ADEQ’s capacity.*

**EPA Response:** The EPA disagrees with the commenter that the Agency lacks the authority to “delegate” primacy to Arizona. SDWA section 1421 directs the EPA to establish minimum requirements for effective state UIC programs to prevent the endangerment of USDWs; states, territories, and federally recognized Tribes must meet these requirements to be granted UIC program primacy. 42 U.S.C. § 300h. Further, SDWA section 1422 expressly authorizes the EPA to approve state applications for UIC program primacy, if the state can satisfactorily demonstrate it has adopted after reasonable public notice and hearings, and will implement, a UIC program that meets applicable regulatory requirements. 42 U.S.C. § 300h-1. Here, Arizona demonstrated to the EPA that its UIC program meets federal requirements, including jurisdiction over underground injection and provisions for the necessary civil and criminal enforcement remedies, thereby showing that the proposed program is protective of USDWs.

The EPA disagrees with the commenter that the Agency is acting in contradiction to its core mission by approving Arizona’s UIC program primacy application. The UIC requirements are designed to address the risks associated with each class of injection well, including the types of injected fluids and the construction of the wells. These include requirements for proper siting, construction, operation, monitoring, plugging of all injection wells, and long-term project management and post-injection site care. These requirements protect USDWs and reduce the

potential for adverse health effects due to USDW endangerment. Furthermore, in this action, the EPA is approving Arizona's UIC primacy program based on the EPA's existing regulations and statutory authority under the SDWA. Comments on the sufficiency of specific provisions of the EPA's UIC regulations are beyond the scope of this action.

Although the EPA acknowledges and agrees with the commenter that injected fluids have the potential to move beyond jurisdictional boundaries, including across state or national boundaries, the Agency disagrees with the commenter that the proposal violates the principle of equal state and citizen rights. As required by 40 CFR 124.10(c)(1), Arizona's regulations require public notice to any affected federal, state, Tribal, or local agency, or council of government (A.A.C. R18-9-620(D)(1)(b)). Additionally, the EPA disagrees with the commenter regarding the bearing of certain international considerations on the Agency's primacy decision. The United States-Mexico-Canada Agreement (USMCA) and the La Paz Agreement do not impose any applicable requirements on the EPA with respect to this action.

Arizona's UIC requirements are designed to address the risks associated with each class of injection well, including requirements for proper siting, construction, operation, monitoring, and plugging of all injection wells. In particular, the requirements to identify the area of review (AoR) around proposed injection wells are designed to ensure that a permit applicant has demonstrated an understanding of the extent to which injected fluids will move within the subsurface. Based on this AoR, ADEQ will prepare permit conditions that ensure that any potential conduits for fluid movement such as naturally occurring fractures and faults in the rock or artificial penetrations (such as abandoned wells) are not present or, if so, corrective action is performed such that USDWs are not endangered. In addition, injection and monitoring wells must be constructed in a manner that will not allow fluid movement that endangers USDWs, and the project must be appropriately monitored to identify potential groundwater contamination.

The EPA disagrees with the commenter that the Agency failed to perform a diligent review. The Agency performed a thorough review of Arizona's primacy application to assess and confirm that the State's UIC regulations are as stringent as the EPA's regulations at 40 CFR Parts 124, 144, 145, and 146. In particular, the EPA evaluated ADEQ's Program Description and determined that ADEQ's permitting, administrative, and judicial review procedures, as well as its compliance evaluation and enforcement mechanisms, meet the requirements of 40 CFR 145.23 to regulate injection wells and ensure that owners and operators of injection wells comply with the requirements. The EPA also evaluated the Program Description to ensure that the State has the capacity, technical expertise, and resources to effectively implement the State's UIC program.

Further, the EPA evaluated Arizona's Attorney General's statement for consistency with 40 CFR 145.24. The statement affirms that Arizona has the legal authority to carry out the State's UIC program, including the authority to implement all permitting requirements found in 40 CFR 145.11. The EPA also reviewed Arizona's MOA to ensure it contains the provisions pertaining to

the State's coordination with the EPA regarding permit administration and review, compliance monitoring, enforcement, and the EPA oversight as required by 40 CFR 145.25.

The EPA also disagrees that ADEQ lacks the capacity to effectively oversee a UIC program. As noted in the Program Description (Section IV), ADEQ has in-house and contractor expertise to effectively perform the duties required to oversee its UIC program, including geologists, hydrogeologists, environmental/reservoir modelers geochemists, well engineers, and log analysts/experts. ADEQ has gained experience through implementation of their Aquifer Protection Permit (APP) program. ADEQ also has the capacity and expertise to perform UIC inspections, compliance assurance, and enforcement, which will be addressed by the Groundwater Protection Section's (GPS) Inspections and Compliance Unit, with assistance from the GPS's Legal Specialist, the Office of Administrative Counsel and, if necessary, the Arizona Attorney General's Office.

The EPA has determined that Arizona has met all applicable requirements for primacy approval under SDWA section 1422. The State has satisfactorily demonstrated that it is capable of administering a UIC program in a manner consistent with the SDWA and all applicable UIC regulations.

*Commenter raised concerns related to potential impacts to groundwater and cultural resources on and surrounding Tribal lands, the EPA's Tribal trust responsibilities including consultation requirements, commitments memorialized in the MOA pursuant to the Class III Florence Copper permit's programmatic agreement, the importance of engaging Tribes in pending permitting decisions, and providing proper notice of permit-related actions.*

**EPA Response:** The EPA acknowledges the commenter's concerns about the importance of protecting groundwater resources. The UIC requirements are designed to address the risks associated with each class of injection well. These include requirements for proper siting, construction, operation, monitoring, and plugging of all injection wells. These requirements protect USDWs and reduce the potential for adverse health effects based on USDW endangerment.

The EPA acknowledges the commenter's concern about the importance of notifying and engaging Tribes in pending permitting decisions. The EPA and ADEQ acknowledge the sovereignty of all federally recognized Tribal governments with jurisdiction over lands located within Arizona. On Tribal lands, the UIC program is administered by the Tribes that have primacy or is retained by the EPA. Arizona's UIC program would apply only on lands under the jurisdiction of the State of Arizona. ADEQ committed in the MOA to offer the opportunity for Tribal government-to-government consultation on UIC permitting actions (MOA, Section II.G). ADEQ's Tribal Consultation and Collaboration Policy outlines the actions that it will take to engage with Tribes and commits to collaborating with each Tribe to develop a consultation procedure that will meet its unique needs.

A.A.C. R18-9-C620(D)(1)(b) requires ADEQ to provide public notice to any affected Tribal agency or council of government when a draft permit has been prepared or when a hearing has been scheduled. Recognizing that Tribal lands are widespread throughout Arizona, ADEQ plans to implement A.A.C. R18-9-C620(D)(1)(b) by sending each public notice to all federally recognized Tribes. ADEQ's Tribal Consultation and Collaboration Policy outlines the actions that the Agency will take to engage with Tribes and commits to collaborating with each Tribe to develop a consultation procedure that will meet its unique needs.

Additionally, in Section II.G of the MOA, ADEQ committed to follow the Tribal relations requirements for State agencies specified in A.R.S. § 41-2051. This includes notifying all federally recognized Tribes and offering the opportunity for government-to-government consultation and informal meetings during the development of any draft permit. Additionally, ADEQ will consult with any federally recognized Tribal government that requests consultation, in accordance with ADEQ's Tribal Consultation and Collaboration policy.

Throughout the primacy application process, ADEQ has demonstrated its commitment to working with Tribes. ADEQ notified all 22 federally recognized Tribes located in Arizona about the application and offered consultation. ADEQ held three Tribal listening sessions on May 10, 14, and 16, 2019. ADEQ also informed at least 7 Tribal leaders about the UIC primacy efforts during other in-person Tribal consultations. Since then, ADEQ has responded to a number of inquiries from several Arizona Tribes concerning UIC program primacy.

The EPA acknowledges the commenter's concern about protection of cultural resources. While Arizona has state laws regarding the protection of cultural resources, the protection of cultural resources is outside the scope of the EPA's primacy determination. The EPA compared Arizona's UIC rule to the provisions of the federal UIC regulations at 40 CFR Parts 124, 144, 145 and 146 and determined that Arizona's regulations are as stringent as the federal requirements. The State has satisfactorily demonstrated it is capable of administering a UIC program in a manner consistent with the SDWA and all applicable UIC regulations. Accordingly, the EPA has determined that Arizona's UIC program meets all applicable requirements for primacy approval under SDWA section 1422.

The EPA acknowledges the commenter's support for retaining Part II.M of the Florence Copper Class III UIC permit. Following transfer of the Florence Copper permit to the State, ADEQ intends to implement limited modifications, such as updating regulatory references and other non-substantive modifications to reflect State authorities (PD, Section X). Part II.M of the Permit contains conditions that incorporate a Programmatic Agreement and associated Historic Properties Treatment Plan developed pursuant to the National Historic Preservation Act (NHPA), which ADEQ has agreed to retain without modification (MOA, Section II.B.ii). The EPA also commits to continuing to work with ADEQ as the permit is transferred to the State and provide technical support as needed. Additionally, the EPA retains authority to enforce UIC permit

provisions, including Part II.M of the Florence Copper Class III UIC Permit, even after a state obtains primacy. 42 U.S.C. 300h-2(a)(1).

**Comments Neither Supporting nor Opposing the EPA's Action to Approve Arizona's UIC Primacy Program:**

*Commenter stated that the EPA should prohibit injection and fracking in Arizona since fossil fuels are more expensive than renewable energy sources, there are better alternatives to fossil fuels, and there is a water shortage in Arizona and injection threatens ground and surface waters.*

**EPA Response:** The EPA acknowledges the commenter's concerns about the importance of protecting surface water and groundwater quality and quantity. However, surface water quality, water availability, and the use of fossil fuels are beyond the scope of the EPA's decision to grant UIC program primacy to Arizona.

Both the EPA's and the State's UIC requirements are designed to address the risks associated with each class of injection well, including the types of fluids injected and the construction of the wells. These include requirements for proper siting, construction, operation, monitoring, and plugging of injection wells. These requirements protect USDWs and reduce the potential for adverse health effects due to USDW endangerment.

Under SDWA section 1421(d)(1), hydraulic fracturing is exempt from the UIC program except when using diesel fuels for operations related to Class II activities. There currently are no Class II wells on State lands in Arizona. However, if Class II wells are permitted in the future, they will be covered under the Arizona UIC program.

The EPA performed a comprehensive review of Arizona's primacy application to assess and confirm that the State's UIC regulations are as stringent as the federal regulations. The EPA evaluated ADEQ's Program Description and determined that ADEQ's permitting, administrative, and judicial review procedures, as well as its compliance evaluation and enforcement mechanisms, meet the requirements of 40 CFR 145.23 to regulate injection wells and ensure that owners and operators of injection wells comply with the requirements. The EPA evaluated the statement provided by Arizona's Attorney General for consistency with 40 CFR 145.24 and to confirm that Arizona has the legal authority to implement all permitting requirements found in 40 CFR 145.11. The EPA also reviewed Arizona's Memorandum of Agreement (MOA) to ensure it contains the provisions pertaining to agreements on coordination, permitting, compliance monitoring, enforcement, and the EPA oversight as required by 40 CFR 145.25.

The EPA has determined that Arizona's UIC program meets all applicable requirements for primacy approval under SDWA section 1422. The State has satisfactorily demonstrated that it is capable of administering a UIC program in a manner consistent with the SDWA and all applicable UIC regulations.



*Commenter stated that the proposed injection control for existing water treatment does not sound like a regulatory action. Additionally, the commenter had concerns about the cost of drinking water and water infrastructure that is broken and causing impacts to water and property.*

**EPA Response:** The EPA acknowledges the commenter's concerns about the importance of protecting water resources. Water infrastructure and the cost of living/drinking water costs are beyond the scope of this decision to grant UIC program primacy to Arizona.

Both the EPA's and the State's UIC requirements are designed to address the risks associated with each class of injection well, including the types of fluids injected and the construction of the wells. These include requirements for proper siting, construction, operation, monitoring, plugging of injection wells, and long-term project management and post-injection site care. These requirements protect USDWs and reduce the potential for adverse health effects due to USDW endangerment. The EPA performed a comprehensive review of Arizona's primacy application to assess and confirm that the State's UIC regulations are as stringent as the federal regulations.

The EPA clarifies that approval of Arizona's UIC primacy program is a regulatory action. Pursuant to Section 1422 of the Safe Drinking Water Act (SDWA) and 40 CFR 145.31, the EPA reviewed Arizona's primacy application, published draft and final decisions in the federal Register, and solicited and responded to public comments.

*Commenter asked about MRV and monitoring requirements and how transportation fits within this schema. He stated that he is looking at this from a geologic perspective and trying to take a holistic approach in terms of air and water pollution.*

**EPA Response:** The EPA agrees with the commenter about the importance of considering geology in UIC permitting decisions and the need for appropriate monitoring at UIC facilities.

The UIC requirements, which are specific to each class of injection well, require an applicant to demonstrate that injection wells will be sited within a geologic system that is appropriate to the proposed injection activity. This includes the presence of a suitable injection zone that will contain any injected fluids under proposed operating conditions and adequate confinement to ensure that no injected fluids will endanger USDWs. See, for example, the information that ADEQ must consider before issuing a permit at A.A.C. R18-9-E642.B (for Class I wells); A.A.C. R18-9-F645.B (for Class II wells); A.A.C. R18-9-G648.B (for Class III wells); and A.A.C. R18-9-J658 (for Class VI wells).

Furthermore, injection well owners and operators are required to perform monitoring that is appropriate to the injection activity and report the results to the permitting authority. For most well operators, this includes monitoring the composition of the injected fluids, groundwater

monitoring, mechanical integrity testing of the injection well, and monitoring injection operations. See, for example, the monitoring and reporting requirements for Class I wells (at A.A.C. R18-9-E641.B,C,D); for Class II wells (at A.A.C. R18-9-F644.B,C); for Class III wells (at A.A.C. R18-9-G647.B,C); and for Class VI wells (at A.A.C. R18-9-J665 and R18-9-J666).

The EPA reviewed Arizona's UIC regulations and determined, based on a comprehensive review, that they are at least as stringent as the federal requirements and that ADEQ has satisfactorily demonstrated it will effectively implement these regulations to ensure protection of USDWs. Both the EPA's and Arizona's UIC requirements are designed to address the risks associated with each class of injection well, including the types of fluids injected and the construction of the wells; these requirements protect USDWs and reduce the potential for adverse health effects due to USDW endangerment.

The EPA assumes that the commenter's reference to MRV and monitoring is referring to the geologic sequestration monitoring, reporting, and verification plans for carbon dioxide required by 40 CFR 98.448, and clarifies that these requirements, as well as transportation and other air pollution requirements, are beyond the scope of this decision to approve Arizona's UIC primacy program.