

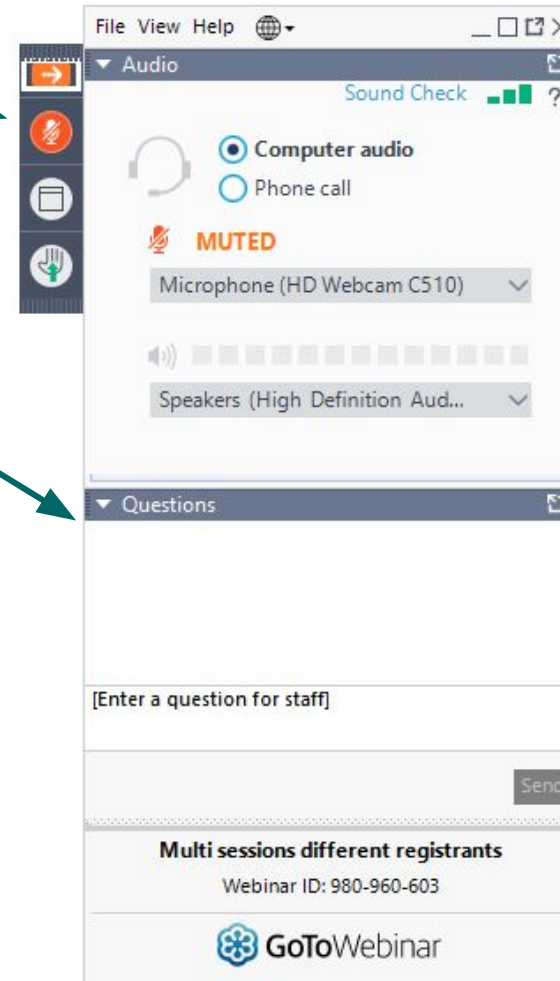
Repair.... Dismantle.... Rebuild!

Onsite Wastewater Treatment Facilities
Stakeholder Meeting

July 26, 2023



- Join Muted
- Use the Question Tool



Meeting Purpose:

Overview of new rule changes

Briefing on the status of the
Phase 2 improvement plan

Additional input on potential
Phase 2 improvements

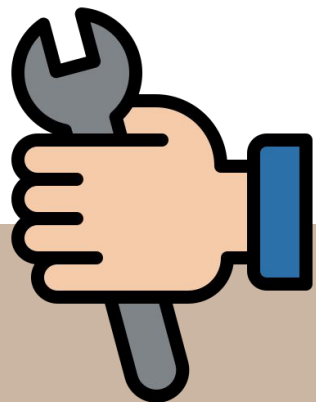
Agenda:

Rule changes effective June
19, 2023

Phase 2 Update

Input on potential other
changes needed





REPAIR RULE



Make technical fixes until larger issues can be addressed

Technical Update for Immediate Fixes

Rules Effective: June 19, 2023

Posting in Arizona Administrative Code: The Code Supplement is posted at least three weeks after the end of the quarter on 6/30/23. More than likely posted during July 1 - September 30 quarter.


Rulemaking Background:

- Scope:
 - Title 18, Ch. 9, Art. 1 (Aquifer Protection Permits (APP) General Provisions) & Art. 3 (APP General Permits)
- Summary of rulemaking actions:
 - Clarify rules and correct errors
 - Make minimal technical updates to the On-site Wastewater Treatment Facility (OWTF) general permit program (“on-site program”)
- Justification:
 - In response to stakeholder desire for changes in the on-site program, ADEQ is undertaking a comprehensive overhaul of the rules related to the on-site program (future Phase II)
 - Part of ADEQ’s path forward was the creation of a temporary advisory group, Wastewater Disposal Advisory Group (WDAG)
 - Together with WDAG, ADEQ published the “On-site Wastewater Treatment Regulatory Program 5-Year Plan: 2021-2025”
 - In the 5-Year Plan, Task 1 is “Initial Rulemaking” to fix existing rules as expeditiously as possible including: clarifications of rule requirements; technical corrections; and other rule updates.
 - This Rulemaking fulfills the Task 1 “Initial Rulemaking” promise and represents ADEQ’s first step towards completion of the actions outlined in the Plan

Technical Update for Immediate Fixes

The Initial Rulemaking included changes within the following categories:

- Definitions;
- Programmatic Implementation;
- Notice of Intent to Discharge;
- Request for Discharge Authorization;
- Site Investigation for Design Preparation;
- Design Flow;
- General Design Requirements;
- Conventional System Designs;
- Alternative System Designs;
- Alternative Design Features;
- Larger Flow Permits under 4.23



These are broken out
further in the following
slides

Technical Update for Immediate Fixes

Definitions	<ul style="list-style-type: none">● Add definition of “cesspool” in R18-9-101● Add definition of “gray water” in R19-9-101● Correct definition of “on-site wastewater treatment facility” in R18-9-101
Programmatic Implementation	<ul style="list-style-type: none">● Update incorrect reference in R18-9-A303● Repeal R18-9-A308 and modify R18-9-110● Add language in R18-9-A309(A)(12) to outline the requirements for applying for a Type 4 GP
Notice of Intent to Discharge	<ul style="list-style-type: none">● Add language in R18-9-A309(A)(5) to include clarifying introductory language● Update R18-9-A309(A)(9) to clarify which actions do not require a new NOI● Update R18-9-A309(A)(9) to clarify and simplify the actions which require an NOI● Add language in R18-9-A309(B)(6) requiring submittal of a design report for pretreatment equipment● Add language in R18-9-A309(B)(2)(b)(iv) requiring submittal of drainage patterns and drainage controls and erosion protection (as applicable)
Request for Discharge Authorization	<ul style="list-style-type: none">● Add language in R18-9-A309(C)(1) and (2) clarifying who must complete and submit the Request for Discharge Authorization
Site Investigation for Design Preparation	<ul style="list-style-type: none">● Add language in R18-9-A310(C)(2)(d) allowing inspection of flood zone● Update to R18-9-A310(D)(1)(a) & (D)(3)(b) removing ASTM auger boring standard● Update to R18-9-A310(G)(3)(d)(iii) fixing typographical citation error● Update to R18-9-A312(D)(2)(b) changing language in a table to correct technical terminology● Update to R18-9-A312(D)(2)(b) changing language in a table to correct technical terminology

Technical Update for Immediate Fixes

Design Flow	<ul style="list-style-type: none">● Update Table 1 clarifying formatting and adding introductory language to line items● Update Table 1 fixing a reference for single family dwellings● Add language to Table 1 clarifying the flow figure for hotels does not account for linen laundry● Update Table 1 clarifying difference between restaurant flows with “disposable service” vs. “full service”
General Design Requirements	<ul style="list-style-type: none">● Add language in R18-9-A309(A)(7) clarifying operational requirements by taking design into account● Add language in various rules clarifying the definition of “gray water” and the requirement for facilities to account for both gray and black water flows when sizing systems● Add language throughout R18-9-A311: ensuring septic tanks and disposal works are designed in accordance with -E302 except in prescribed situations; clarifying the applicability of Subsection (C) to only modifications of a conventional system that is the sole method of treatment and disposal; and correcting the reference to the vertical separation requirement in (C)(2)(b)● Add language in the setback table in R18-9-A312(C): clarifying the application of three types of setbacks; prescribing a setback for canals under line item 6; and demonstrating applicability of setbacks in line item 10 to domestic water holding tanks● Add language throughout R18-9-A312(D): incorporating a previously omitted reference to seepage pit percolation testing in (2)(a); clarifying why “pit” is used in the soil characteristics table in (2)(b); and interpreting the rule in (2)(c) to require an applicant to use the higher of two listed percolation rates to correlate the most conservative SAR● Add language throughout R18-9-A312(E): clarifying the applicability of minimum coliform concentration requirements based on vertical separation distance; and requiring a hydraulic analysis in all designs meeting prescribed criteria● Add language throughout R18-9-A312(F): authorizing other pipe materials; and incorporating additional requirements for electronic components in OWTFs● Add language in R18-9-A315(B) clarifying the types of flows that an interceptor may not receive
Conventional System Designs	<ul style="list-style-type: none">● Add language in R18-9-A314(1)(I) to authorize other dating options for septic tanks● Update language in R18-9-A314(2)(c) & (d) updating septic tank standards for fiberglass/plastic septic tanks as well as prefabricated concrete septic tanks

Technical Update for Immediate Fixes

Alternative System Designs	<ul style="list-style-type: none">● Add language in R18-9-E304(D)(2)(c)(i) authorizing conspicuous placement for pressurization panels for owners of an OWTF● Add language in R18-9-E304(D)(2)(d)(iii) authorizing alarms/test features/controls to be separate from a circuit for frequently used household lighting fixtures upon the satisfaction of certain conditions● Update language in R18-9-E314(A)(1) separating situations under which a value and haul system is allowed to be installed● Add language to R18-9-E314(C) authorizing operational constraints to prevail over site investigation requirements for installing a vault and haul system
Alternative Design Features	<ul style="list-style-type: none">● Add language in R18-9-A312(G) clarifying when an applicant may use a listed proprietary product in a permit without requesting review under Subsection G● Add language in R18-9-A312(G)(7) clarifying the rule's application to both conventional and alternative systems as well as for 4.23 permits
Larger Flow Permits - 4.23	<ul style="list-style-type: none">● Add language in R18-9-E323(A) & (H) to clarify 4.23 applicability to construction and use of one or more new facilities at a site that has or will have (given the proposed facilities) the requisite design flow of 3,000 gallons/day up to 24,000 gallons/day● Modify language in R18-9-E323(A)(3)(a) to clarify that aerobic systems are not allowed under 4.23; including a technical correction in -(A)(3)(b) allowing radiation disinfection devices to be used under 4.23; and updating language in -E320(A)(1) to clarify that ultraviolet radiation is the current technology used in onsite disinfection



DISMANTLE

COMPLETED

Dismantle: Problems Identified by TWGs



Current permitting structure **limits innovation**

Permitting bottlenecks due to **lack of clarity** in the rule

Inability to **check** if the system is performing as designed

Limitations on using **recycled water**

PPL evaluation process is inconsistent

Lack of information on current systems statewide

Transfer inspection reports are inconsistent

Dismantle: Guiding Principles

Based on **sound science**

Encourage the development and use of **new and evolving technologies**

Provide **leading-edge** environmental and public health protection

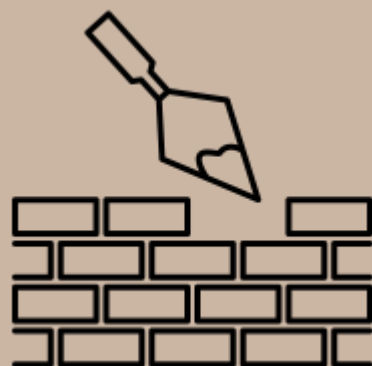
Ensures **competent personnel** through a certification program

Become a national leader in **reuse of wastewater**

Balance environmental, public health, economic, property impacts

Radically simple for customers and staff

ADEQ commitment to manage, support and implement program



REBUILD



Rebuild: Risk Based Approach

STEP 1 >

Property
Owner Info

Use, Strength
Flow, Reuse



Permit Type

STEP 2 >

Site
Investigation

Surface
Subsurface



Treatment
Level

Required Effluent
Performance

STEP 3 >

Product
Listing

Design guidelines
for chosen
technology



Facility
Design

Treatment required
to meet treatment
level

STEP 4 >

Install

Operations
Maintenance
Monitoring



Regulator
Oversight

Compliance
Inspection
Infield Testing

Rebuild: Key Components Under Consideration

Tiered treatment levels

Renewable operating certificate

Regulator receives transfer inspection reports

System must be functional at time of sale

Professional Certification

Revised PPL certification process

Monitoring and maintenance requirements



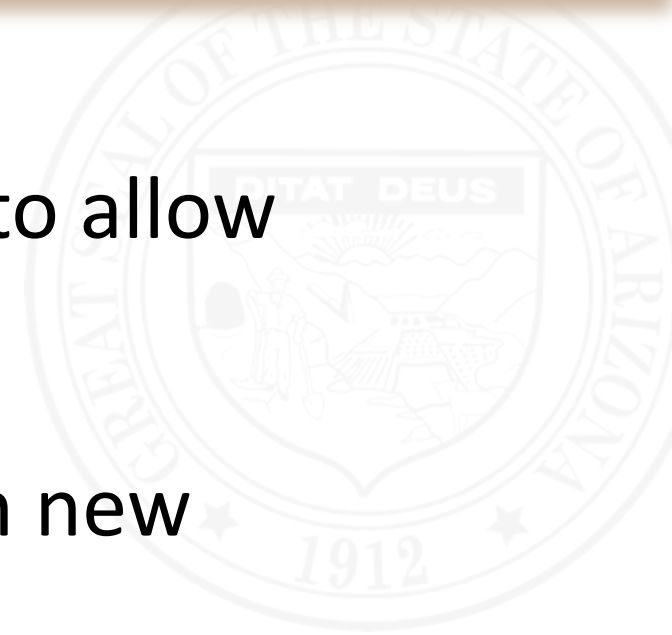


Have exemption memo to allow rulemaking

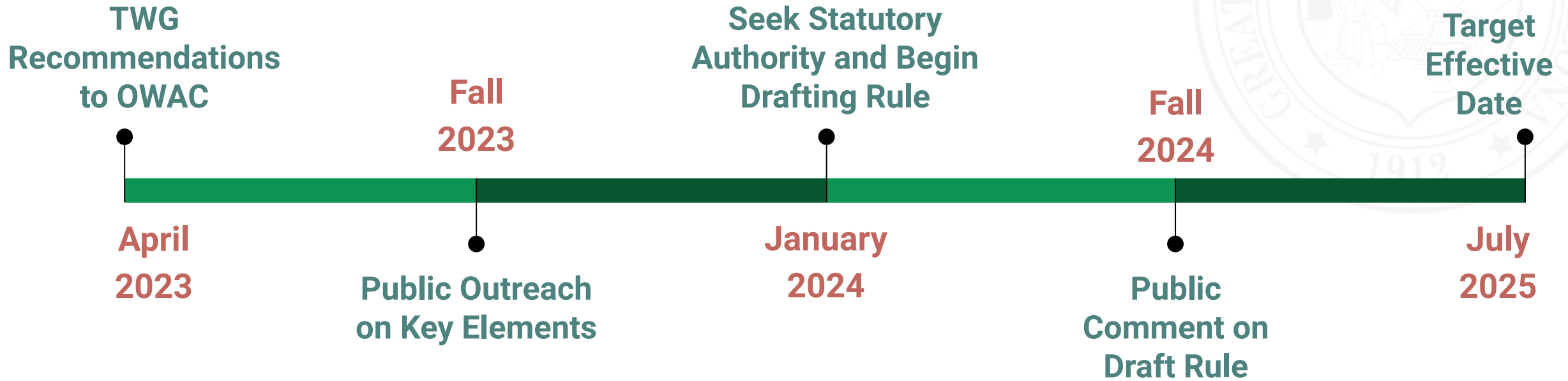
Obtaining direction from new leadership

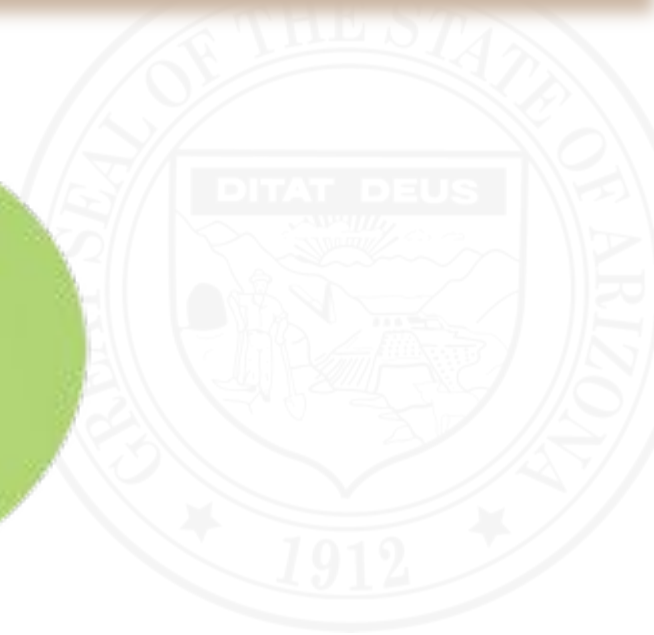
Need additional statutory authority

Need you to stay involved



Rebuild: Timeline





**Thank
You**

*...to the 43 volunteers who
have devoted your time,
passions, and knowledge to
assist ADEQ in this major
endeavor*

Onsite Wastewater Advisory Committee (OWAC)

Jake Garrett, Chair and Bryan Chiordi, Vice Chair

Design and Permitting TWG

Jake Garrett, Chair

Future State TWG

Dave Lentz and Alex Kendrick, Chair

Operations, Maintenance, Certification TWG

Dave Bartholomew, Chair and Doug Dishbow, Vice Chair

PPL TWG

Joelle Wirth, Chair and Nick Noble, Vice Chair



Repair: 5-Year Plan



Wastewater Disposal Advisory Group (WDAG)

Met during 2020

Identified issues and developed an improvement plan

5 Year Plan Published:
January 2021

5 Key Tasks



Initial Rulemaking

Filed with GRRC



Ongoing Process Improvements



Technical Work Groups

Began meeting in June 2021



Additional Rulemaking

Received Phase 2 Exemption Memo



Implementation and Evaluation