# NOTICE OF PROPOSED RULEMAKING TITLE 18. ENVIRONMENTAL QUALITY CHAPTER 9. DEPARTMENT OF ENVIRONMENTAL QUALITY WATER POLLUTION CONTROL

# **PREAMBLE**

1.	Article, Part of Sections Affected (as applicable)	<b>Rulemaking Action</b>
	Article 6	Repeal
	R18-6-601	Repeal
	R18-9-602	Repeal
	R18-9-603	Repeal
	Article 7	Amend
	R18-9-701	Renumber
	R18-9-702	Renumber
	R18-9-703	Renumber
	R18-9-704	Renumber
	R18-9-705	Renumber
	R18-9-706	Renumber
	R18-9-707	Renumber
	R18-9-708	Renumber
	R18-9-709	Renumber
	R18-9-710	Renumber
	R18-9-711	Renumber
	R18-9-712	Renumber
	R18-9-713	Renumber

R18-9-714	Renumber
R18-9-715	Renumber
R18-9-716	Renumber
R18-9-717	Renumber
R18-9-718	Renumber
R18-9-719	Renumber
R18-9-720	Repeal
Part A	New Part
R18-9-A701	Renumber
R18-9-A701	Amend
R18-9-A702	Renumber
R18-9-A702	Amend
R18-9-A703	Renumber
R18-9-A703	Amend
R18-9-A704	Renumber
R18-9-A704	Amend
R18-9-A705	Renumber
R18-9-A705	Amend
R18-9-A706	Renumber
R18-9-A706	Amend
Part B	New Part
R18-9-B701	Renumber
R18-9-B701	Amend
	_

Renumber

R18-9-B702

R18-9-B702	Amend
R18-9-B703	Renumber
R18-9-B703	Amend
R18-9-B704	Renumber
R18-9-B704	Amend
R18-9-B705	Renumber
R18-9-B705	Amend
R18-9-B706	Renumber
R18-9-B706	Amend
R18-9-B707	Renumber
R18-9-B707	Amend
R18-9-B708	Renumber
R18-9-B708	Amend
R18-9-B709	Renumber
R18-9-B709	Amend
R18-9-B710	Renumber
R18-9-B710	Amend
Part C	New Part
R18-9-C701	Renumber
R18-9-C701	Amend
Part D	New Part
R18-9-D701	Renumber
R18-9-D701	Amend
D10 0 D702	D 1

Renumber

R18-9-D702

R18-9-D702 Amend

Part E New Part

R18-9-E701 New Section

# 2. Citations to the agency's statutory rulemaking authority to include the authorizing statute (general) and the implementing statute (specific):

Authorizing statutes: A.R.S. § 49-203(A)(6).

Implementing statute: A.R.S. § 49-203.

# 3. Citations to all related notices published in the Register as specified in R1-1-409(A) that pertain to the record of the proposed rule:

Notice of Rulemaking Docket Opening: 22 A.A.R. 16, January 1, 2016

A new Notice of Rulemaking Docket Opening is published simultaneously with this Notice of Proposed Rulemaking.

# 4. The agency's contact person who can answer question about the rulemaking:

Name: Heidi M. Haggerty (Welborn)

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Water Quality Division

1110 W. Washington Street

Phoenix, Arizona 85007

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5677 and entering the seven digit number at any time during the automated message.)

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# 5. An agency's justification and reason why a rule should be made, amended, repealed or renumbered, to include an explanation about the rulemaking:

# **Summary**

The Arizona Department of Environmental Quality (ADEQ) proposes to amend 18 A.A.C. 9, Articles 6 & 7 in order to update and restructure its reclaimed water rules, and also to allow for treatment of reclaimed water for potable use.

ADEQ last adopted a comprehensive revision of its reclaimed water reuse rules in January, 2001. These rules have fostered the beneficial reuse of reclaimed water while protecting water quality and human health. This regulatory framework has served Arizona well in expanding its water supply portfolio.

Since 2001, however, the science and technology of treatment and monitoring have advanced and new concerns and needs have arisen, including the need for clarification of ambiguities in the rules. In early 2016, ADEQ held informal listening sessions in Tucson, Phoenix, and Flagstaff to gather comments and feedback on the current rules. This rule proposal is an outcome of that process and represents the first round of two, perhaps three, rulemaking installments.

In addition to meeting stakeholders' water augmentation requests, this rulemaking furthers the goals of the Governor's Blue Ribbon Panel on Water Sustainability, which was formed in 2009 by Governor Brewer, and the Governor's Arizona Water Initiative's Augmentation Council, originated by Governor Ducey under Executive Order 2015-13. The *Blue Ribbon Panel on Water Sustainability Final Report* contained recommendations to advance and expand the use of reclaimed water and other recycled waters. In *The Arizona Water Initiative Annual Report, July 1, 2016*, experts identified the need for water augmentation through expanding reclaimed water reuse. This rulemaking is the first installment in expanding the use of reclaimed and recycled waters to meet augmentation needs.

Based on the need for augmentation and the listening sessions held in early 2016, future installments will likely involve updates and amendments to A.A.C. Title 18, Chapter 11, Article 3, Reclaimed Water Quality Standards and additional amendments to A.A.C. Title 18, Chapter 9, Article 7 regarding infrastructure and technology and potable use criteria.

ADEQ anticipates that a second rulemaking installment will involve amending A.A.C. Title 18, Chapter 11, Article 3, Reclaimed Water Quality Standards. To assist ADEQ in revising the reclaimed water quality standards, ADEQ has convened an expert workgroup to review the suitability of existing standards in light of current knowledge and provide recommendations on revisions.

ADEQ has also convened a work group of experts to provide recommendations to ADEQ on infrastructure and technology for an expected third rulemaking installment. This work group is charged with two tasks: (1) review the reclaimed water conveyance requirements (formerly A.A.C. Title 18, Chapter 9, Article 6 provisions, which are now proposed for incorporation into Part B of Article 7) and determine whether the current technical criteria are adequate, and (2) develop and recommend comprehensive criteria for advanced water treatment for direct potable reuse of reclaimed water. Comprehensive criteria for direct potable reuse would replace the interim criteria specified in Part E of this rulemaking. While ADEQ expects that these revisions will be proposed in a third rulemaking

installment, it is possible that revisions to both the direct potable reuse criteria and the reclaimed water quality standards could be proposed in a single rulemaking installment.

# **Explanation of Chief Modifications**

ADEQ proposes several chief changes for 18 A.A.C. 9, Articles 6 and 7 in this rulemaking, including the following:

- Nomenclature and Restructuring Modifications;
- Modification of the Prohibition Against Providing Reclaimed Water for Human Consumption;
- Addition of Interim Permitting Criteria for Production of Potable Water from Reclaimed Source Water;
- Modification of Gray Water Permitting Requirements;
- Modification of Notice and Signage Provisions;
- Modification of Reporting Requirements;
- Modification of Permit Revocation Provisions:
- Repeal of Unnecessary Sections and Subsections;
- Modification of Permit Notice Requirements; and
- Other minor clarifications, grammatical changes, and technical and consistency modifications to implement the above listed overarching changes.

### Nomenclature and Restructuring Modifications.

ADEQ modified the overall nomenclature of Article 7. Under ADEQ's current regulations, gray water, industrial wastewater, and reclaimed water are regulated as reclaimed water. However, gray water, industrial wastewater, and reclaimed water are all separate and unique categories of recycled water. ADEQ proposes to modify Article 7 to regulate all of these categories of water under the same umbrella term of "recycled water." ADEQ renamed A.A.C. Title 18, Chapter 9, Article 7, from Direct Reuse of Reclaimed Water to Use of Recycled Water. A definition for recycled water is also proposed in R18-9-A701. To implement this new nomenclature, ADEQ proposes a new organizational structure for Article 7 that clearly distinguishes the general recycled water provisions and the different categories of recycled water. The proposed structure is designed to ease the addition of any potential new categories of recycled waters in the future.

ADEQ modified the general provisions for reclaimed water to be applicable to all recycled waters and moved the provisions into Part A. Reclaimed water is now addressed in Part B. Reuse of industrial wastewater is regulated separately in Part C. Gray water is now regulated in Part D.

Part E, which has no counterpart in the current rules, contains the interim criteria for advanced water treatment for distribution of water for direct potable reuse. Below is the proposed structure for Article 7:

Table 1 Proposed Article 7 Restructure According to Part

Article 7	Use of Recycled Water
Part A	General Provisions
Part B	Reclaimed Water
Part C	Recycled Industrial Wastewater
Part D	Gray Water
Part E	Purified Water for Potable Reuse

In the current rules, the permit types are listed consecutively in R18-9-711 through R18-9-719. However, as a part of the nomenclature and restructuring changes, ADEQ proposes that these permits be located in the part of the rule that addresses the particular category of recycled water regulated in the permit. Also, as a result of the restructure, every permit is now a "recycled water" permit and renamed as such. Below is a table that shows each of the permit types proposed for regulation under Article 7.

Table 2 Proposed Permits by Type

Permit Type		
Type 1 Recycled Water General Permit for Gray Water		
Type 2 Recycled Water General Permit for Direct Reuse of Class A+ Reclaimed Water	В	
Type 2 Recycled Water General Permit for Direct Reuse of Class A Reclaimed Water	В	
Type 2 Recycled Water General Permit for Direct Reuse of Class B+ Reclaimed Water	В	
Type 2 Recycled Water General Permit for Direct Reuse of Class B Reclaimed Water	В	
Type 2 Recycled Water General Permit for Direct Reuse of Class C Reclaimed Water	В	
Type 3 Recycled Water General Permit for a Reclaimed Water Blending Facility		
Type 3 Recycled Water General Permit for a Reclaimed Water Agent		
Type 3 Recycled Water General Permit for Gray Water		
Recycled Water Individual Permit (General)		
Recycled Water Individual Permit for Industrial Wastewater That Is Reused		

Permit Type	Part
Recycled Water Individual Permit for an Advanced Water Treatment Facility	Е

The proposed modifications also transfer all of the provisions from A.A.C. Title 18, Chapter 9, Article 6, Reclaimed Water Conveyances, into Article 7 for regulation as general reclaimed water requirements under Part B of Article 7. The definitions for "open water conveyance" and "pipeline conveyance" are moved into the Article 7 General Provisions definition section, R18-9-7A01. The reclaimed water pipeline conveyance and open water conveyance sections, R18-9-602 and R18-9-603, respectively, are moved into the section for general requirements for reclaimed water, R18-9-B702. These provisions are only applicable to reclaimed water conveyance and distribution and so are only regulated under the reclaimed water category under Part B of Article 7.

# Modification of the Prohibition Against Providing Reclaimed Water for Human Consumption.

In furtherance of augmenting Arizona's potable water supply to meet future demands, ADEQ is providing and exception to the prohibition against providing reclaimed water for human consumption by allowing reclaimed water to be treated appropriately for potable use.

ADEQ proposes to leave the current reclaimed classes and permitting methodology substanially in place to allow for the continued appropriate regulation of reclaimed water, which has benefitted the state over the years. Without additional advanced treatment, current classes of reclaimed water (A+, A, B+, B, and C) are not verifiably safe to drink. For this reason, ADEQ maintains that the prohibition against providing reclaimed water for human consumption should continue in order to protect human health.

However, stakeholders and academia have shown, and ADEQ concurs, that the science and technology of advanced water treatment is at a level today where reclaimed water can be treated to produce potable water. Therefore, ADEQ proposes to modify the prohibition against providing reclaimed water for human consumption to allow for an exception . As proposed, reclaimed water may be used as a source water for human consumption if the water undergoes further advanced water treatment and permitting under Part E. Part E prescribes a permitting process and a list of criteria that must be considered for ADEQ to issue a permit for an advanced water treatment facility as an end user. The proposed term "advanced water treatment facility" is defined in R18-9-A701(1).

Given the proven effectiveness of advanced water treatment techniques to produce drinkable water, ADEQ intends that reclaimed water appropriately treated by an advanced water treatment facility is no longer considered "reclaimed water" and therefore subsequent use is not be "direct reuse" of reclaimed water as defined in the rules. In other words, while an advanced water treatment facility is considered an end user of reclaimed water, a person receiving water produced by an advanced water treatment facility is not an end user of reclaimed water and is not subject to the end user permitting requirements under Article 7. However, water produced by an advanced water treatment facility may be subject to other water quality regulations. For example, if the water produced by an advanced water treatment facility is subsequently delivered to a public water system, Safe Drinking Water Act regulations would apply.

# Addition of Interim Permitting Criteria for Production of Potable Water from Reclaimed Source Water.

This proposed rulemaking provides broad protective interim permitting criteria for an advanced water treatment facility in Part E of the proposed rule. As stated above, ADEQ is confident in the science and technology that advanced water treatment techniques can provide a finished water suitable for any potable use. An advanced water treatment facility is essentially comprised of a treatment train that processes reclaimed water to produce potable water. This type of facility uses state-of-the-art technology to remove contaminants from reclaimed water, which has already undergone significant treatment. A typical treatment train for an advanced water treatment facility might include a sequence of technologies such as ultrafiltration, reverse osmosis, advanced oxidation, and granular activated carbon.

State-of-the-art monitoring technology is also used to track in real time the treatment processes and the quality of the finished water product. These technological advances ensure that the facility can reliably purify water for drinking from virtually any source water to any desired standard of protection. In this rulemaking, advanced water treatment facilities may only be permitted to treat and purify Class A+ or B+ water, which is already highly treated water.

Under the proposed rules, an advanced water treatment facility must obtain a Recycled Water Individual Permit for an Advanced Water Treatment Facility. Such a permit would contain the same information as any Recycled Water Individual Permit, as well as the information required by the interim criteria, such as proof of pilot studies and results, plan for monitoring for public health, and a complete description and analysis of the treatment stream and technologies, among other interim criteria. The proposed criteria will serve as a framework for developing expanded

final criteria for design, treatment, monitoring, and operation of advanced water treatment facilities for production of potable water. At the same time, ADEQ is confident the interim criteria will ensure that any advanced water treatment plant proposed during this interim period will produce a superior and drinkable finished water product.

To assist in expanding the interim criteria, ADEQ has convened a workgroup of experts with access and knowledge of recent publications, research, and practice. Several of these experts have knowledge of or are involved in developing a recent document on Arizona-specific potable use considerations facilitated by the Steering Committee on Arizona Potable Reuse (SCAPR), an ad hoc group formed by experts from municipalities, consulting firms, and academia. As mentioned previously, ADEQ will produce expanded criteria in a later rulemaking installment.

### Modification of Gray Water Permitting Requirements.

ADEQ updated the gray water use rules to clarify ambiguities and expand the utility of gray water permits.

ADEQ proposes to modify some of the language and requirements in the Type 1 General Permit for Gray Water proposed in R18-9-D701, which regulates residential gray water use. ADEQ intends to provide greater clarity as to what best practices are most appropriate, safe, and practical. The changes proposed in this rule revisions reflect more than 15 years of experience under the current approach. The changes:

- Clarify the use of gray water for safely watering food plants;
- Allow gray water use for shrubs as well as trees;
- Disallow mixing of water used to wash diapers or similarly soiled garments with gray water because disinfection is too complicated for most home gray water systems;
- Provide examples for minimizing standing water on the surface, including the now widespread practice of distributing gray water under a mulch cover;
- Mandate that if blockage, backup, or overload of the system occurs, distribution of gray
  water should cease until the deficiency is corrected. This may provide additional options
  over the former language, which required the flow to be directed to the sewer or septic
  tank;
- Broaden the scope of filtration language to clarify that best practices and additional components may achieve the same level of water quality;
- Specify that gray water storage tank holding time should be 24 hours or less to avoid development of anaerobic conditions and odors (such tanks have proven problematic in

practice, leading to the use of surge tanks with shorter holding times in some systems); and

 Provide specific examples of flood gray water application including containment by horticultural mulch basins and swales.

Further, under the proposed R18-9-A703 Recycled Water Individual Permit, ADEQ will allow the addition of kitchen sink and dishwater wastewater to a gray water source, as long as the water is treated appropriately for its end use.

The current Type 3 General Permit for Gray Water, which allows for gray water flows of 3000 gallons or less per day, is not usable for most applicants due to inappropriate gray water dispersal requirements. The dispersal requirements as currently written mirror the disposal requirements for an on-site wastewater treatment facility, which require disposal of the water into trenches. Trench disposal limits the ability for a gray water permittee to use the water for its intended beneficial uses. The proposed R18-9-D702 replaces those requirements with ones that largely mirror the revised best practices proposed for private residential gray water systems in R18-9-D701. ADEQ believes that these revisions will greatly expand the utility of this Type 3 general permit for prospective applicants. In addition, this rule proposal adds a requirement that a person submitting a Notice of Intent must include a description of the sources of gray water and calculations that demonstrate that the flow is not more than 3000 gallons per day.

### Modification of Notice and Signage Provisions.

For the Type 2 Reclaimed Water General Permits for Direct Reuse of Class A+, A, B+, B, and C waters in R18-9-B704 through –B708, the proposed rules allow a permittee to post signs or provide notification in recognition that not all allowed end uses of reclaimed water are amenable to posting signs.

ADEQ proposes changes to the signage requirement for "Mobile Reclaimed Water Dispersal" in R18-9-B702 to accommodate dispersal equipment other than trucks and tanks.

### **Modification of Reporting Requirements.**

ADEQ proposes in R18-9-A705 to mandate that if certain informational changes have occurred, a recycled water permittee must report such changes at least once annually by January 31st. While certain informational changes must be submitted for notice purposes only, ADEQ proposes that any other changes will require a new permit application. ADEQ also proposes that required

annual reporting be due by a calendar date versus the permit anniversary date, in order to minimize work for both ADEQ and the customer to keep track of specific permit effective dates.

#### **Modification of Permit Revocation Provisions.**

ADEQ proposes to simplify and consolidate permit revocation provisions into one section, R18-9-A706, for both general and individual permits.

### Repeal of Unnecessary Sections and Subsections.

Upon review, some sections and subsection in Article 7 are unnecessary because the Department is already required by statute or rule to implement such sections or subsections. For example, the Department is already subject to permitting and licensing timeframe requirements by statute in Arizona Revised Statutes Title 41 and general agency rules in the Arizona Administrative Code, Title 18, Chapter 1. In addition, enforcement and penalty procedures in the current R18-9-720 are already established in A.R.S. §§ 49-261 through 49-263.

# **Modification of Notice Requirements.**

In R18-9-A703, ADEQ proposes that the agency must post notices of permitting decisions and for hearings on the Department's website, rather than in newspaper publications.

# **Section by Section Explanation of Proposed Rules**

Table 3 Section by Section Crosswalk and Condensed Explanation of Proposed Rules

Proposed Rule Number and Title	Current Rule Number and Title	Condensed Explanation of Modification
Repeal Article 6	Article 6	Repeal as this article will no longer be necessary
	Reclaimed Water	because all text will be transferred to Article 7.
	Conveyances	
Repeal	R18-6-601	Repeal and transfer text into the Article 7
	Definitions	definitions in R18-9-A701.
Repeal	R18-9-602 Pipeline	Repeal and transfer text into the reclaimed water
	Conveyances of	general requirements in R18-9-B702(J).
	Reclaimed Water	

Proposed Rule	Current Rule	Condensed Explanation of Modification
Number and Title	Number and Title	
Repeal	R18-9-603	Repeal and transfer text into the reclaimed water
	Open Water	general requirements in R18-9-B702(K).
	Conveyances of	
	Reclaimed Water	
Article 7	Article 7	Restructure into several parts to regulate different
Use of Recycled	Direct Reuse of	types of water under the umbrella term recycled
Water	Reclaimed Water	water.
Part A	N/A	New part for recycled water general provisions.
General Provisions		
R18-9-A701	R18-9-701	Renumbered. Insert "Open water conveyance" and
Definitions	Definitions	"pipeline conveyance" definitions from Article 6 to
		here. Amend gray water definition to be consistent
		with statutory definition. Add a definition for
		recycled water. Add a definition for an advanced
		water treatment facility.
R18-9-A702	R18-9-702	Renumber and make minor amendments to clarify
Applicability and	Applicability and	applicability under recycled water structure.
Standards for	Standards for	
Recycled Water	Reclaimed Water	
	Classes	

Proposed Rule Number and Title	Current Rule Number and Title	Condensed Explanation of Modification
R18-9-A703	R18-9-705	Renumber and amend to include certain general
Recycled Water	Reclaimed Water	information changes an applicant must annually
Individual Permit	Individual Permit	submit. Modify the notice requirements from
Application	Application	requiring newspaper notices to posting on the
		Department's website. Repeal pre-application
		conference provision as ADEQ is always willing to
		hold pre-application conferences when requested
		by applicants. Repeal provisions already required
		by other agency rules or specific applicable
		statutes. Amend to ensure treatment measures will
		be employed to meet appropriate water quality. Fix
		rule references.
R18-9-A704	R18-9-708	Renumber and clarify process and information
Recycled Water	Reusing Reclaimed	required for Notice of Intent to Use Recycled
General Permit	Water Under a	Water. Recycled Water Authorization is not
	General Permit	automatically issued for a Type 3 permit and
		ADEQ must inform permittees of its receipt of a
		Notice of Intent for Type 2 permits.
R18-9-A705	R18-9-709	Renumber and completely restructure to apply to
Recycled Water	Reclaimed Water	all recycled water permits. Requires the permittee
Permit Term,	General Permit	to provide certain information annually if there are
Information	Renewal and	any changes in the information. If there are any
Changes, and	Transfer	changes other than those allowed with notice, a
Renewal		new permit is required.
R18-9-A706	R18-9-710	Renumber, restructure, and simplify permit
Recycled Water	Reclaimed Water	revocation procedures for general and individual
Permit Revocation	General Permit	permits. This rule was modified to be applicable to
	Revocation	all recycled water permits, not just reclaimed water
		general permits.

Proposed Rule	Current Rule	Condensed Explanation of Modification
Number and Title	Number and Title	
Repeal	R18-9-720	Repeal because enforcement and penalty processes
	Enforcement and	are provided by statute in A.R.S. §§ 49-261
	Penalties	through 49-263.
Part B	N/A	New part for reclaimed water regulation.
Reclaimed Water		
R18-9-B701	R18-9-703	Renumber and minor grammar edits and
Transition of	Transition of	consistency changes, such as updating cross-
Permits	Permits	references and nomenclature.
R18-9-B702	R18-9-704	Modify the prohibition against direct reuse for
General	General	human consumption to allow for an exemption for
Requirements	Requirements	reclaimed water treated under Part E. The hose
		bibb provision is transferred to its own subsection
		to clarify that all hose bibbs discharging reclaimed
		water shall be secured to prevent use by the public,
		not just hose bibbs associated with irrigation.
		Modify signage and notice requirements. Pipeline
		and open water conveyance requirements from
		Article 6 are moved into this section. Renumber
		and make nomenclature, grammar, and reference
		fixes for consistency. This section is still only
		applicable to reclaimed water.

Proposed Rule Number and Title	Current Rule Number and Title	Condensed Explanation of Modification
R18-9-B703	R18-9-706	Renumber and make minor consistency and
General Provisions	Reclaimed Water	clarification edits. Remove permit transfer
for Recycled Water	Individual Permit	provisions, now covered in Part A. Add provisions
Individual Permit	Application	for closure as applicable and signage and
for Reclaimed		notification requirements, as appropriate for the
Water		end use. Update reference to strip chart recordings
		to the more generic word "data" to reflect digital
		data collection methods. For clarity, provide
		reference to discretionary alternate direct reuses
		allowed under R18-11-309.
R18-9-B704	R18-9-712	Renumber and make minor changes for
Type 2 Recycled	Type 2 Recycled	consistency.
Water General	Water General	
Permit for Direct	Permit for Direct	
Reuse of Class A+	Reuse of Class A+	
Reclaimed Water	Reclaimed Water	
R18-9-B705	R18-9-713	Renumber and minor changes for consistency and
Type 2 Recycled	Type 2 Reclaimed	clarity.
Water General	Water General	
Permit for Direct	Permit for Direct	
Reuse of Class A	Reuse of Class A	
Reclaimed Water	Reclaimed Water	
R18-9-B706	R18-9-714	Renumber and make minor changes for
Type 2 Recycled	Type 2 Reclaimed	consistency.
Water General	Water General	
Permit for Direct	Permit for Direct	
Reuse of Class B+	Reuse of Class B+	
Reclaimed Water	Reclaimed Water	

Proposed Rule Number and Title	Current Rule Number and Title	Condensed Explanation of Modification
R18-9-B707	R18-9-715	Renumber and make minor changes for
Type 2 Recycled	Type 2 Reclaimed	consistency.
Water General	Water General	
Permit for Direct	Permit for Direct	
Reuse of Class B	Reuse of Class B	
Reclaimed Water	Reclaimed Water	
R18-9-B708	R18-9-716	Renumber and make minor changes for
Type 2 Recycled	Type 2 Reclaimed	consistency.
Water General	Water General	
Permit for Direct	Permit for Direct	
Reuse of Class C	Reuse of Class C	
Reclaimed Water	Reclaimed Water	
R18-9-B709	R18-9-717	Renumber and clarify information requirements for
Type 3 Recycled	Type 3 Reclaimed	Type 3 blending facility applications. Clarify
Water General	Water General	requirements if nitrogen or fecal coliform
Permit for a	Permit for a	concentrations are exceeded. Modifies annual
Reclaimed Water	Reclaimed Water	reporting date from permit anniversary to a
Blending Facility	Blending Facility	uniform calendar year date of January 31.
R18-9-B710	R18-9-718	Renumbered, modified for consistency, and
Type 3 Recycled	Type 3 Reclaimed	clarifies information requirements for Type 3 water
Water General	Water General	agent permit. Modifies annual reporting date from
Permit for a	Permit for a	permit anniversary to a uniform calendar year date
Reclaimed Water	Reclaimed Water	of January 31.
Agent	Agent	
Part C	N/A	New part for recycled industrial wastewater
Recycled Industrial		regulation.
Wastewater		

Proposed Rule	Current Rule	Condensed Explanation of Modification
Number and Title	Number and Title	
R18-9-C701	R18-9-707	Renumber and minor changes for consistency.
Recycled Water	Reclaimed Water	Updated industrial code terminology.
Individual Permit	Individual Permit	
for Industrial	Where Industrial	
Wastewater	Wastewater	
	Influences the	
	Characteristics of	
	Reclaimed Water	
Part D	N/A	New part for gray water regulation.
Gray Water		
R18-9-D701	R18-9-711	Renumber and make minor changes for
Type 1 Recycled	Type 1 Reclaimed	consistency. Several changes to clarify ambiguities
General Permit for	Water General	in current rule and to provide more useful guidance
Gray Water	Permit for Gray	for residential gray water use.
	Water	
R18-9-D702	R18-9-719	Renumber and make minor changes for
Type 3 Recycled	Type 3 Reclaimed	consistency. Significant changes to technical
General Permit for	Water General	requirements for large-scale gray water use. New
Gray Water	Permit for Gray	requirements expand the utility of the permit.
	Water	
Part E	N/A	New part for potable use regulation.
Purified Water for		
Potable Reuse		
R18-9-E701	N/A	New section to provide an individual permit
Recycled Water		process for an advanced water treatment facility, a
Individual Permit		facility that treats reclaimed water to produce
for an Advanced		potable water. Provides interim criteria that
Water Treatment		permittees must meet for purifying water for
Facility		potable use.

6. A reference to any study relevant to the rule that the agency reviewed and proposes either to rely on or not to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

Framework for Direct Potable Reuse, Sept 14, 2015, sponsored by the WateReuse Association and co-sponsored by NWRI, American Water Works Association, and Water Environment Federation.

George Tchobanoglous, University of California, Davis, et al., "Direct Potable Reuse: A Path Forward" (2011), sponsored by WateReuse, Bureau of Reclamation, and California State Water Resources Control Board.

- 7. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:

  Not applicable.
- 8. The preliminary summary of the economic, small business, and consumer impact:
  [In Process]
- 9. The agency's contact person who can answer questions about the economic, small business, and consumer impact statement:

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Phoenix, Arizona 85007

Telephone: (602) 771-4815 (This number may be reached toll-free in state by dialing 1-800-234-

5677 and entering the seven digit number at any time during the automated message.)

E-mail: hh4@azdeq.gov

10. The time, place, and nature of the proceedings to make, amend, repeal, or renumber the rule or, if no proceeding is scheduled, where, when, and how persons may request an oral proceeding on the proposed rule:

ADEQ has scheduled an oral proceeding to receive oral comments on the rules, in accordance with

A.R.S. § 41-1023; the time, place, and location of the hearing are listed below:

Date: [TBD]
Time: [TBD]

Location: Arizona Department of Environmental Quality

1110 W. Washington, Room 3175

Phoenix, AZ 85007

Nature: Oral Proceeding on the proposed rules, with opportunity for formal comments on the

record

Close of Comment: [TBD] p.m. on [same date as above]

Written, faxed, or e-mailed comments may be made with the contact person listed above.

- 11. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under

  A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:
  - a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:

The rules require several different types of permits. General permits are used where possible. However, individual permits are prescribed for case-by-case situations. An individual permit is also required for advanced water treatment facilities. Such facilities will have varying advanced water treatment techniques and will also require case-by-case facility-specific determinations.

b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:

There is no federal law applicable to reclaimed water.

- c. Whether a person submitted an analysis to the agency that compares the rule's impact of the competitiveness of business in this state to the impact on business in other states:
  No analysis has been submitted.
- 12. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rules:

None.

13. The full text of the rules follows:

#### TITLE 18. ENVIRONMENTAL QUALITY

# CHAPTER 9. DEPARTMENT OF ENVIRONMENTAL QUALITY WATER POLLUTION CONTROL

# ARTICLE 6. RECLAIMED WATER CONVEYANCES REPEALED

D10	0.601	Definitions

R18-9-602. Pipeline Conveyances of Reclaimed Water

R18-9-603 Open Water Conveyances of Reclaimed Water

# ARTICLE 7. DIRECT REUSE OF RECLAIMED USE OF RECYCLED WATER

#### Section

R18-9-701. Definitions

R18-9-702. Applicability and Standards for Reclaimed Water Classes

R18-9-703. Transition of Permits

R18-9-704. General Requirements

R18-9-705. Reclaimed Water Individual Permit Application

R18-9-706. Reclaimed Water Individual Permit General Provisions

R18 9 707. Reclaimed Water Individual Permit Where Industrial Wastewater Influences the Characteristics of Reclaimed Water

R18-9-708. Reusing Reclaimed Water Under a General Permit

R18-9-709. Reclaimed Water General Permit Renewal and Transfer

R18-9-710. Reclaimed Water General Permit Revocation

R18-9-711. Type 1 Reclaimed Water General Permit for Gray Water

R18-9-712. Type 2 Reclaimed Water General Permit for Direct Reuse of Class A+ Reclaimed Water

R18 9-713. Type 2 Reclaimed Water General Permit for Direct Reuse of Class A Reclaimed Water

R18 9-714. Type 2 Reclaimed Water General Permit for Direct Reuse of Class B+ Reclaimed Water

R18-9-715. Type 2 Reclaimed Water General Permit for Direct Reuse of Class B Reclaimed Water

R18-9-716. Type 2 Reclaimed Water General Permit for Direct Reuse of Class C Reclaimed Water

R18-9-717. Type 3 Reclaimed Water General Permit for a Reclaimed Water Blending Facility

R18-9-718. Type 3 Reclaimed Water General Permit for a Reclaimed Water Agent

R18-9-719. Type 3 Reclaimed Water General Permit for Gray Water

R18-9-720. Enforcement and Penalties

# **PART A. GENERAL PROVISIONS**

R18-9-A701. Definitions

<u>R18-9-A702.</u> Applicability and Standards for Reclaimed Recycled Water-Classes

- R18-9-A703. Reclaimed Recycled Water Individual Permit Application
- R18-9-A704. Reusing Reclaimed Recycled Water Under a General Permit
- R18-9-A705. Reclaimed Recycled Water General Permit Term, Information Changes, and Renewal and Transfer
- R18-9-A706. Reclaimed Recycled Water General Permit Revocation

### PART B. RECLAIMED WATER

- R18-9-B701. Transition of Permits
- R18-9-B702. General Requirements
- <u>R18-9-B703.</u> <u>General Provisions for Reclaimed Recycled</u> Water Individual Permit <u>for Reclaimed</u>

  Water General Provisions
- R18-9-B704. Type 2 Reclaimed Recycled Water General Permit for Direct Reuse of Class A+ Reclaimed Water
- R18-9-B705. Type 2 Reclaimed Recycled Water General Permit for Direct Reuse of Class A Reclaimed Water
- R18-9-B706. Type 2 Reclaimed Recycled Water General Permit for Direct Reuse of Class B+ Reclaimed Water
- R18-9-B707. Type 2 Reclaimed Recycled Water General Permit for Direct Reuse of Class B Reclaimed Water
- R18-9-B708. Type 2 Reclaimed Recycled Water General Permit for Direct Reuse of Class C Reclaimed Water
- R18-9-B709. Type 3 Reclaimed Recycled Water General Permit for a Reclaimed Water Blending Facility
- R18-9-B710. Type 3 Reclaimed Recycled Water General Permit for a Reclaimed Water Agent

# PART C. RECYCLED INDUSTRIAL WASTEWATER

<u>R18-9-C701.</u> Reclaimed Recycled Water Individual Permit Where for Industrial Wastewater Influences the Characteristics of Reclaimed Water That Is Reused

### PART D. GRAY WATER

- R18-9-D701. Type 1 Reclaimed Recycled Water General Permit for Gray Water
- R18-9-D702. Type 3 Reclaimed Recycled Water General Permit for Gray Water

### PART E. PURIFIED WATER FOR POTABLE REUSE

R18-9-E701. Recycled Water Individual Permit for an Advanced Water Treatment Facility

### ARTICLE 6. RECLAIMED WATER CONVEYANCES REPEALED

#### R18-9-601. Definitions

In addition to the definitions provided in R18-9-701, the following terms apply to this Article:

- 1. "Open water conveyance" means any constructed open waterway, including canals and laterals that transports reclaimed water from a sewage treatment facility to a reclaimed water blending facility or from a sewage treatment facility or reclaimed water blending facility to the point of land application or end use. An open water conveyance does not include waters of the United States.
- 2. "Pipeline conveyance" means any system of pipelines that transports reclaimed water from a sewage treatment facility to a reclaimed water blending facility or from a sewage treatment facility or reclaimed water blending facility to the point of land application or end use.

### R18-9-602. Pipeline Conveyances of Reclaimed Water

#### A. Applicability.

- 1. Any person constructing a pipeline conveyance on or after January 1, 2001, whether new or a replacement of an existing pipeline shall meet the requirements of this Article.
- 2. Any person who has constructed a pipeline conveyance before January 1, 2001, is considered to be in compliance with this Article.
- B. A person shall design and construct a pipeline conveyance system using good engineering judgement following standards of practice.
- C. A person shall construct a pipeline conveyance so that:
  - 1. Reclaimed water does not find its way into, or otherwise contaminate, a potable water system;
  - 2. System structural integrity is maintained; and
  - 3. The capability for inspection, maintenance, and testing is maintained.
- D. A person shall construct a pipeline conveyance and all appurtenances conducting reclaimed water to withstand a static pressure of at least 50 pounds per square inch greater than the design working pressure without leakage as determined in A.A.C. R18 9 E301(D)(2)(j).
- E. A person shall provide a pipeline conveyance with thrust blocks or restrained joints where needed to prevent excessive movement of the pipeline.
- F. The following requirements for minimum separation distance apply. A person shall:
  - 1. Locate a pipeline conveyance no closer than 50 feet from a drinking water well unless the pipeline conveyance is constructed as specified under subsection (F)(3);
  - 2. Locate a pipeline conveyance no closer than two feet vertically nor six feet horizontally from a potable water pipeline unless the pipeline conveyance is constructed as specified under subsection (F)(3);

- 3. Construct a pipeline conveyance that does not meet the minimum separation distances specified in subsections (F)(1) and (F)(2) by encasing the pipeline conveyance in at least six inches of concrete or using mechanical joint ductile iron pipe or other materials of equivalent or greater tensile and compressive strength at least 10 feet beyond any point on the pipeline conveyance within the specified minimum separation distance; and
- 4. If a reclaimed water system is supplemented with water from a potable water system, separate the potable water system from the pipeline conveyance by an air gap.

#### G. A person shall:

- 1. For a pipeline conveyance, eight inches in diameter or less, use pipe marked on opposite sides in English: "CAUTION: RECLAIMED WATER, DO NOT DRINK" in intervals of three feet or less and colored purple or wrapped with durable purple tape.
- 2. For a mechanical appurtenance to a pipeline conveyance, ensure that the mechanical appurtenance is colored purple or legibly marked to identify it as part of the reclaimed water distribution system and distinguish it from systems for potable water distribution and sewage collection.

#### R18-9-603. Open Water Conveyances of Reclaimed Water

- A. This Article applies to an open water conveyance, regardless of the date of construction.
- B. A person shall maintain an open water conveyance to prevent release of reclaimed water except as allowed under federal and state regulations. The maintenance program shall include periodic inspections and follow-up corrective measures to ensure the integrity of conveyance banks and capacity of the conveyance to safely carry operational flows.
- C. Signage for Class B+, B, and C Reclaimed Water. A person shall:
  - 1. Ensure that signs state: "CAUTION: RECLAIMED WATER, DO NOT DRINK," and display the international "do not drink" symbol;
  - 2. Place signs at all points of ingress and, if the open water conveyance is operated with open access, at least every 1/4-mile along the length of the open water conveyance; and
  - 3. Ensure that signs are visible and legible from both sides of the open water conveyance.

# ARTICLE 7. DIRECT REUSE OF RECLAIMED USE OF RECYCLED WATER PART A. GENERAL PROVISIONS

### R18-9-701.R18-9-A701. Definitions

Unless provided otherwise, the definitions provided in A.R.S. § 49-201, A.A.C. R18-9-101, R18-9-601, R18-11-301, and the following terms apply to this Article:

- 1. "Advanced water treatment facility" means a facility that treats and purifies Class A+ or Class B+ reclaimed water to produce potable water suitable for distribution for human consumption. R18-9-B702(B) does not apply to an advanced water treatment facility. Potable water produced by an advanced water treatment facility is not reclaimed water.
- 4.2. "Direct reuse" means the beneficial use of reclaimed water for a purpose allowed by this Article. The following is not a direct reuse of reclaimed water:
  - a. The use of water subsequent to its discharge under the conditions of a National an Arizona Pollutant Discharge Elimination System permit;
  - b. The use of water subsequent to discharge under the conditions of an Aquifer Protection Permit issued under 18 A.A.C. 9, Articles 1 through 3; or
  - c. The use of industrial wastewater reclaimed water, or both, in a workplace subject to a federal program that protects workers from workplace exposures.
- 2.3. "Direct reuse site" means an area permitted for the application or impoundment of reclaimed water. An impoundment operated for disposal under an Aquifer Protection Permit is not a direct reuse site.
- 3.4. "End user" means a person who directly reuses reclaimed water meeting the standards for Classes A+, A, B+, B, and C, established under 18 A.A.C. 11, Article 3.
- 4.5. "Gray water" means wastewater <u>that has been</u> collected separately from a sewage flow <u>and</u> that originates from a clothes washer, <u>bathtub</u>, <u>shower</u>, <u>and sink</u>, <u>or a bathroom tub</u>, <u>shower or sink</u> but <u>that</u> does not include wastewater from a kitchen sink, dishwasher, or toilet. <u>A.R.S.</u> § 49-201(18).
- 5.6. "Industrial wastewater" means wastewater generated from an industrial process.
- 6.7. "Irrigation" means the beneficial use of water or reclaimed water, or both, for growing crops, turf, or silviculture, or for landscaping.
- 7-8. "Open access" means that access to reclaimed water by the general public is uncontrolled.
- .9. "Open water conveyance" means any constructed open waterway, including canals and laterals, that transports reclaimed water from a sewage treatment facility to a reclaimed water blending facility or from a sewage treatment facility or reclaimed water blending facility to the point of land application or end use. An open water conveyance does not include waters of the United States.
- 10. "Pipeline conveyance" means any system of pipelines that transports reclaimed water from a sewage treatment facility to a reclaimed water blending facility or from a sewage treatment facility or reclaimed water blending facility to the point of land application or end use.
- 8. 11. "Reclaimed water" means water that has been treated or processed by a wastewater treatment plant or an on-site wastewater treatment facility. A.R.S. § 49 201(31) 49-201(32).

- 9. 12. "Reclaimed water agent" means a person who holds a permit to distribute reclaimed water to more than one end user.
- 10. 13. "Reclaimed water blending facility" means an installation or method of operation that receives reclaimed water from a sewage treatment facility or other reclaimed water blending facility classified to produce Class C or better reclaimed water and blends it with other water so that the produced water may be used for a higher-class purpose listed in 18 A.A.C. 11, Article 3, Appendix Table A.
- 14. "Recycled water" means a processed water, including reclaimed water and gray water, for which the Department has designated water quality specifications to allow the water to be used as a supply.
- 15. "Restricted access" means that access to reclaimed water by the general public is controlled.

# R18-9-702.R18-9-A702. Applicability and Standards for Reclaimed Recycled Water-Classes

#### **A.** This Article applies to:

- 1. An owner or operator of a sewage treatment facility that generates reclaimed water for direct reuse,
- 2. An owner or operator of a reclaimed water blending facility,
- 3. A reclaimed water agent,
- 4. An end user of reclaimed water,
- 5. A person who uses gray water recycled water regulated under this Article,
- A person who directly reuses reclaimed water from a sewage treatment facility combined with industrial wastewater or combined with reclaimed water from an industrial wastewater treatment facility, and
- 7. A person who directly reuses reclaimed water from an industrial wastewater treatment facility in the production or processing of a crop or substance that may be used as human or animal food.
- **B.** Reclaimed water classes A+, A, B+, B, and C specified in this Article shall meet the standards established in 18 A.A.C. 11, Article 3.
- **C.** Nothing in this Article exempts the disposal of reclaimed water from the Aquifer Protection Permit requirements under A.R.S. Title 49, Chapter 2, Articles 1, 2, and 3.

#### R18-9-703. Renumbered to R18-9-B701.

#### R18-9-704. Renumbered to R18-9-B702.

#### R18-9-705, R18-9-A703, Reclaimed Recycled Water Individual Permit Application

- **A.** Pre application conference. Upon request of an applicant, the Department shall schedule and hold a pre application conference with the applicant to discuss any requirements in this Article.
- **B.**A. To apply for a Reclaimed Recycled Water Individual Permit, a person shall provide the Department with:
  - 1. The applicable permit fee specified under 18 A.A.C. 14; and
  - 4.2. The following information on a form provided by the Department:
    - a. The name, e-mail address, telephone number, and mailing address of the owner or operator of the facility or, if applicable, the reclaimed water agent;
    - b. The social security number of the applicant, if the applicant is an individual;
    - c. The legal description of the direct reuse site, including latitude and longitude coordinates; township range, and section; site address, if applicable; and a map showing the facility or site location;
    - d. Any other federal or state environmental permits issued to the applicant;
    - e. Source of reclaimed recycled water to be directly reused used;
    - f. The applicant may propose for approval, and the Department may issue, a single permit that includes more than one recycled water allowed by this article, if the applicant demonstrates that the waters will be treated appropriately for the end use;
    - g. The applicant may propose, and the Department may permit, the inclusion of kitchen sink and dishwasher wastewater to a Recycled Water Individual Permit for gray water, if the applicant demonstrates that such waters will be treated appropriately for the end use;
    - <u>f.h.</u> Volume of reclaimed <u>Estimated volume of recycled</u> water to be <u>directly reused used</u> on an annual basis;
    - g.i. Class of reclaimed water to be directly reused, if applicable;
    - h.j. Description of the direct reuse use activity; and
    - k. Any treatment measures that will be employed to meet or maintain reclaimed water quality standards or otherwise ensure that the quality of the recycled water is fit for the intended use; and
    - <u>i-l.</u> The applicant's <u>signature certifying certification</u> that the information submitted in the application is true and accurate to the best of the applicant's knowledge; <u>.</u>
  - 2. A copy of the certificate of disclosure of violations required under A.R.S. § 49-109; and
  - 3. The applicable permit fee specified under 18 A.A.C. 14.

- C. Administrative completeness review. Upon receipt, the Department shall review the Reclaimed Water Individual Permit application to determine its administrative completeness under A.R.S. § 41–1074 and A.A.C. R18–1–503.
- **D.** Substantive review. Upon receipt of a complete Reclaimed Water Individual Permit application, the Department shall review the application to determine its substantive adequacy under A.R.S. § 41–1075 and A.A.C. R18–1–504.
- **E.B.** Draft permit. The Department shall provide the applicant a copy of a draft of the Reclaimed Recycled Water Individual Permit before the notice specified in subsection (F) is published.
- **F.C.** Public participation.
  - 1. Notice of Preliminary Decision.
    - a. The Department shall publish a Notice of Preliminary Decision to issue or deny a Reclaimed Water Individual Permit within a period of time that allows the Department to meet the licensing time frame requirements under 18 A.A.C. 5.
    - b.a. The Department shall publish the Notice of Preliminary Decision regarding the issuance or denial of a final permit determination in one or more newspapers of general circulation where the facility is located on the Department's website.
    - e.b. The Department shall accept written comments from the public before a Reclaimed Recycled Water Individual Permit is issued or denied.
    - d.c. The written public comment period begins on the publication date of the Notice of Preliminary Decision and extends for 30 calendar days.
  - 2. After publishing the notice specified in subsection (F)(1)(a) (D)(1)(a), the Department shall hold a public hearing to address the Notice of Preliminary Decision if the Department determines that:
    - a. Public Significant public interest in a public hearing exists, or
    - b. <u>Issues Significant issues</u> or information have been brought to the attention of the Department that are relevant to the permitting decision and have not been considered previously in the permitting process.
  - 3. If the Department determines that a public hearing is necessary and a public hearing has not already been noticed under subsection (F)(1)(a) (D)(1)(a), the Department shall schedule a public hearing and republish the Notice of Preliminary Decision as a legal notice at least once, in one or more newspapers of general circulation where the facility is located and notice of the public hearing on the Department's website.
  - 4. The Department shall accept written public comment until the close of the hearing record as specified by the person presiding at the public hearing.
- **G.D.** Final permit issuance or denial.

- 1. The Department shall give the applicant written notification of its final decision to issue or deny the permit application within the overall licensing time frame requirements in 18 A.A.C. 5.
- 2.1. The Department may deny a Reclaimed Recycled Water Individual Permit if the Department determines upon completion of the application process that the applicant has:
  - a. Failed or refused to correct a deficiency in the permit application;
  - b. Failed to demonstrate that the facility and the operation will protect public health and water quality. This determination shall be based on:
    - i. The information submitted in the permit application,
    - ii. Any information submitted to the Department as written public comment or following a public hearing; or
    - iii. Any information relevant to the demonstration that is developed or acquired by the Department, or
  - c. Provided false or misleading information.
- 3.2. If the Department denies a Reclaimed Recycled Water Individual Permit the Department shall provide the applicant with written notification that explains the following:
  - a. The reasons for the denial with references to the statutes or rules on which the denial is based.
  - b. The applicant's right to appeal the denial, including the number of days the applicant has to file a notice of appeal, and the name and telephone number of the Department contact person who can answer questions regarding the appeals process.
  - c. The applicant's right to request an informal settlement conference under A.R.S. §§ 41-1092.03(A) and 41-1092.06.

#### R18-9-706. Renumbered to R18-9-B703.

### R18-9-707. Renumbered to R18-9-C701.

# R18-9-708. R18-9-A704. Reusing Reclaimed Recycled Water Under a-General Permit

- **A.** Type 1 Reclaimed Recycled Water General Permit. A person may directly reuse reclaimed use recycled water without notice to the Department if the use:
  - 1. The direct reuse is Is specifically authorized by and meets the requirements of this Article, and

- 2. Complies with the requirements of the Type 1 Reclaimed Recycled Water General Permit under R18 9 711 this Article.
- **B.** Type 2 Reclaimed Recycled Water General Permit.
  - 1. A person may directly reuse reclaimed use recycled water under a Type 2 Reclaimed Recycled Water General Permit if:
    - a. The direct reuse use is authorized by and meets the requirements of this Article;
    - b. The direct reuse use meets all the conditions of the applicable Type 2 Reclaimed Recycled Water General Permit under R18-9-712 through R18-9-716 this Article;
    - c. The person files a Notice of Intent for Direct Reuse of Reclaimed to Use Recycled Water under subsection (B)(2); and
    - d. The person submits the applicable fee established in 18 A.A.C. 14.
  - 2. Notice of Intent for Direct Reuse of Reclaimed to Use Recycled Water.
    - a. A person shall submit, by <u>certified</u>-mail, in person, or by another method approved by the Department, the Notice of Intent <u>for Direct Reuse of Reclaimed to Use Recycled</u> Water on a form provided by the Department.
    - b. The Notice of Intent for Direct Reuse of Reclaimed to Use Recycled Water shall include;
      - i. The name, address, e-mail address, and telephone number of the applicant;
      - ii. The social security number of the applicant, if the applicant is an individual;
      - iii. The name, address, and telephone number of the contact person;
      - iv.iii. The source, estimated volume, and, if applicable, class of reclaimed recycled water to be directly reused used;
      - v. A legal description of the direct reuse site, including iv. The latitude and longitude coordinates of the approximate center point of the use site;
      - vi.v. The description of the direct reuse use activity, including a description of acreage and the type of vegetation to be irrigated, if applicable to the type of direct reuse activity; and
      - <u>vii.vi.</u> The <u>permittee's applicant's signature certifying certification</u> that the <u>permittee</u> <u>applicant</u> agrees to comply with all requirements of this Article, including specific terms of the applicable <u>Reclaimed Recycled</u> Water General Permit.
    - c. For a Type 2 Recycled Water General Permit for Direct Reuse of Reclaimed Water, the Notice of Intent to Use Recycled Water must include the description of the direct reuse activity, including a description of acreage and the type of vegetation to be irrigated, if applicable to the type of direct reuse activity.
  - 3. The Department shall notify the applicant that the Department received the Notice of Intent to Use Recycled Water.

- C. Type 3 Reclaimed Recycled Water General Permit. A person may shall not operate under a Type 3 Reclaimed Recycled Water General Permit after filing an applicable Notice of Intent to Operate with the Department and receiving until the Department issues a written Verification of General Permit Conformance for the operation Recycled Water Authorization.
  - 1. Application submittal. The applicant shall submit, either by eertified mail, in person at the Department, or by another method approved by the Department:
    - a. The Notice of Intent to Operate Use Recycled Water on a form provided by the Department containing the information specified in the applicable Type 3 Reclaimed Recycled Water General Permit under R18-9-717(B), R18-9-718(C), or R18-9-719(B) under this Article, and
    - b. The applicable fee established in 18 A.A.C. 14.
  - 2. Verification issuance. <u>Issuance of Recycled Water Authorization</u>. If, after reviewing the Notice of Intent to Operate <u>Use Recycled Water</u>, the Department determines that the direct reuse conforms with the conditions of a Type 3 <u>Reclaimed Recycled</u> Water General Permit and all other applicable requirements of this Article, the Department shall issue the <u>Verification of General Permit Conformance</u> Recycled Water Authorization.
  - 3. Verification denial Denial of Recycled Water Authorization.
    - a. If the Department determines on the basis of its review or an inspection that the direct reuse use does not conform to the conditions of the applicable Type 3 Reclaimed Recycled Water General Permit or other applicable requirements of this Article, the Department shall notify the applicant of its decision not to issue the Verification of General Permit Conformance Recycled Water Authorization.
    - b. If an application is denied, the applicant shall not operate under a Type 3 Reclaimed Recycled Water General Permit.
    - e.b. The applicant may appeal the decision not to issue a Verification of General Permit Conformance Recycled Water Authorization under A.R.S. §§ 41-1092 through 41-1092.12.
  - 4. Automatic issuance. If the Department does not issue the Verification of General Permit Conformance within the time frame specified under 18 A.A.C. 1, Article 5, and does not notify the applicant that it will not issue the verification, the verification automatically becomes effective upon expiration of the overall time frame.

# R18-9-709. R18-9-A705. Reclaimed Recycled Water General Permit Term, Information Changes, and Renewal and Transfer

A. General permit renewal. A permittee shall renew a Reclaimed Water General Permit at least 90 days before the permit expires by following the procedure described in either R18 9 708(B) or

- (C) and include the applicable fee established in 18 A.A.C. 14.
- 1. A Type 1 Reclaimed Water General Permit is valid as long as the conditions of the general permit and the requirements of this Article are met. No renewal is required;
- 2. A Type 2 Reclaimed Water General Permit is valid for five years from the date the Department receives the Notice of Intent for Direct Reuse of Reclaimed Water;
- A Type 3 Reclaimed Water General Permit is valid for five years from the date the Verification of General Permit Conformance becomes effective.
- **B.** General permit transfer. A permittee shall provide notice to the Department by certified mail within 15 days following the transfer of a Type 2 or Type 3 Reclaimed Water General Permit. The Notice of Transfer shall:
  - 1. Contain any information that has changed from the original Notice of Intent for Direct Reuse of Reclaimed Water or the Notice of Intent to Operate, including all information on the proposed new permittee, and
  - 2. Include the applicable fee established in 18 A.A.C. 14.
- **A.** A recycled water general permit is valid as follows:
  - 1. A Type 1 Recycled Water General Permit is valid as long as the conditions of the general permit and the requirements of this Article are met. No renewal is required.
  - 2. A Type 2 Recycled Water General Permit is valid for five years from the date the Department receives the Notice of Intent to Use Recycled Water;
  - 3. A Type 3 Recycled Water General Permit is valid for five years from the date the Recycled Water Authorization is issued.
- B. If any change in the following information occurs, a permittee of any individual, or Type 2 or Type 3 recycled water general permit shall update the Department with such changes at least once annually by January 31:
  - 1. Permittee,
  - 2. Ownership,
  - 3. Contact person,
  - 4. Phone number, address, email address, or telephone number, or any combination of any of the above, for permittee or contact person,
  - 5. Name of the use site,
  - 6. For a Type 2 Recycled Water General Permit for Direct Reuse of Class A + or B + Reclaimed

Water that remains under the same ownership:

- a. Expansion of the reuse area,
- b. Addition of another allowable use if it is located within the same property boundary as
   the boundary identified in the Notice of Intent to Use Recycled Water submitted to the
   Department.
- 7. An increase in Class A, B, or C reclaimed water use of more than ten percent but less than twenty percent above the volume of reclaimed water currently permitted for use at the reuse site, if applicable.
- C. To renew any Type 2 or Type 3 Recycled Water General Permit, a permittee must submit a

  Notice of Renewal at least 30 days before the permit expires and include the applicable fee
  established in 18 A.A.C. 14. A permittee may update or change any information as described in
  subsections (B) in a Notice of Renewal.
- **D.** For changes not described in subsections (B) or (C), the permittee must submit a new Notice of Intent to Use Recycled Water or a Recycled Water Individual Permit application, as applicable.

# R18-9-710. R18-9-A706 Reclaimed Recycled Water General Permit Revocation

- A. The Director may revoke a Reclaimed Water General Permit if the permittee fails to comply with any requirement in this Article, including a condition specified in the applicable Reclaimed Water General Permit. The Director shall make the determination based on the risk to public health and safety or a threat to waters of the state.
  - 1. Before revoking a general permit, the Department shall provide notice to the permittee by certified mail of the Department's intent to revoke the Reclaimed Water General Permit. The notice of intent to revoke the general permit shall provide the permittee a reasonable opportunity to correct any noncompliance and specify a time frame within which the permittee shall achieve compliance.
  - 2. If the permittee fails to correct the noncompliance within the specified time frame, the Department shall notify the permittee, by certified mail, of the Director's decision to revoke the Reclaimed Water General Permit.
- **B.** The Director shall revoke a Reclaimed Water General Permit for any or all facilities located within a specific geographic area, if, due to a geologic or hydrologic condition, the cumulative effect of the facilities subject to the Reclaimed Water General Permit has violated or will violate a Water Quality Standard established under A.R.S. §§ 49-221 and 49-223.

**A.** After notice and opportunity for a hearing, the Director may revoke coverage under a Recycled Water General Permit and require the permittee to obtain an individual permit in order to operate for any of the following:

1. The permittee failed to comply with any applicable provision of A.R.S. Title 49, Chapter 2; Article 7 of this Chapter; or any permit condition;

2. The permittee misrepresented or omitted a fact, information, or data related to an application or

permit condition;

3. The Director determines that a permitted activity is causing or will cause a violation of a water

quality standard established under A.R.S. §§ 49-221;

4. A permitted activity is causing or will cause imminent and substantial endangerment to public

health or the environment.

**B.** The Director may revoke coverage under a general permit for any or all facilities within a specific

geographic area, if, due to geologic or hydrologic conditions, the cumulative effect of the facilities

subject to the Recycled Water General Permit has violated or will violate a water quality standard

established under A.R.S. §§ 49-221.

C. If an individual permit is issued to replace general permit coverage, the coverage under the general

permit is automatically revoked upon issuance of the individual permit.

E. The Director may, after notice and opportunity for hearing, suspend or revoke a Recycled Water

Individual Permit for any of the reasons listed in subsections (A)(1) through (A)(4) of this section.

R18-9-711. Renumbered to R18-9-D701.

R18-9-712. Renumbered to R18-9-B704.

R18-9-713. Renumbered to R18-9-B705.

R18-9-714. Renumbered to R18-9-B706.

R18-9-715. Renumbered to R18-9-B707.

R18-9-716. Renumbered to R18-9-B708.

R18-9-717. Renumbered to R18-9-B709.

R18-9-718. Renumbered to R18-9-B710.

R18-9-719. Renumbered to R18-9-D702.

#### R18-9-720. Enforcement and Penalties

Any person who violates a condition specified in a permit issued under this Article, falsifies data or information submitted to the Department as required under Articles 6 or 7 of this Chapter, or violates a provision of Article 6 or 7 of this Chapter, is subject to the enforcement actions prescribed under A.R.S. §§ 49-261 and 49-262.

# PART B. RECLAIMED WATER

### R18-9-B701. Transition of Permits

- **A.** A person may directly reuse reclaimed water under an individual Aquifer Protection Permit or a Permit for the Reuse of Reclaimed Wastewater issued by the Department before January 1, 2001 if the person meets the conditions of the permit and the permit does not expire.
- **B.** A person meeting the requirements of subsection (A) may apply for a new reclaimed water permit under this Article.
  - 1. To obtain a reclaimed water permit, a person shall submit a Reclaimed Recycled Water Individual Permit application, required under R18-9-705(B) R18-9-A703(A), or a Notice of Intent for Direct Reuse of Reclaimed to Use Recycled Water, required under R18-9-708(B)(2) R18-9-A704(B)(2) or R18-9-A704(B)(3), or a Notice of Intent to Operate, required under R18-9-708(C)(1) to the Department at least 120 days before the current permit expires.
  - 2. The Department shall continue the terms of the individual Aquifer Protection Permit or the Permit for the Reuse of Reclaimed Wastewater beyond the stated date of expiration if:
    - a. The permitted direct reuse is of a continuing nature; and

- b. The permittee submits a timely and complete application for a new permit.
- **C.** Sewage treatment facility generating reclaimed water.
- 1. At the request of a permittee <u>holding an Individual Aquifer Protection Permit</u>, the Department shall amend an individual Aquifer Protection Permit <del>issued before January 1, 2001</del> if the permittee adequately demonstrates that the applicable quality of reclaimed water produced for direct reuse is achieved. The Department shall review:
  - a. The information in the individual Aquifer Protection Permit application, any applicable supporting documentation, and the water quality test results from the previous two years to determine the classification of reclaimed water generated by the sewage treatment facility; and
  - b. The available water quality data if the sewage treatment facility has operated for less than two years.
- 2. The Department shall <u>ensure that issue</u> an amended individual Aquifer Protection Permit <u>under procedures specified under 18 A.A.C. 9, Article 2 that contains:</u>
  - a. Identification of the class of reclaimed water generated by the facility;
  - b. Requirements for monitoring reclaimed water quality and flow at a frequency appropriate to demonstrate compliance with this Article and 18 A.A.C. 11, Article 3;
  - c. Requirements for quarterly reporting of the following data to the Department, any reclaimed water agent who has contracted for delivery of reclaimed water from the facility, and any end user who has not waived interest in receiving this information:
    - i. Water quality test results demonstrating that reclaimed water produced by the facility meets the applicable standards for the class of water identified in subsection (C)(2)(a), and
    - ii. The total volume of reclaimed water generated for direct reuse.
  - d. Provision for cessation of delivery, if necessary, and storage or disposal if reclaimed water cannot be delivered for direct reuse.

### R18-9-B702. General Requirements

- **A.** Sewage treatment facility. Except for permits continued under R18-9-703(A), a A sewage treatment facility owner or operator shall provide reclaimed water for direct reuse only as authorized under an individual Aquifer Protection Permit. amended under R18-9-703(C)(2).
- **B.** Additional treatment. If an owner or operator of a facility accepts reclaimed water and provides additional treatment for a higher quality direct reuse, the facility is considered a sewage treatment facility and shall operate under the requirements of provide reclaimed water for direct reuse only as authorized under an individual Aquifer Protection Permit amended under R18 9 703(C)(2).

- C. Reclaimed water blending facility. An owner or operator of a reclaimed water blending facility shall not conduct blending operations without obtaining only as authorized under a Reclaimed Recycled Water Individual Permit for Reclaimed Water or Reclaimed Recycled Water General Permit for Reclaimed Water.
- D. Reclaimed water agent. A person shall not operate as a reclaimed water agent without obtaining only as authorized under a Reclaimed Recycled Water Individual Permit for Reclaimed Water or Reclaimed Recycled Water General Permit for Reclaimed Water.
- **E.** End user. A person shall not directly reuse reclaimed water unless permitted under this Article.
- **F.** Irrigating with reclaimed water. A permittee irrigating with reclaimed water applying reclaimed water for an irrigation use allowed in Chapter 11, Article 3, Table A shall:
  - 1. Use application methods that reasonably preclude human contact with reclaimed water;
  - 2. Prevent reclaimed water from standing on open access areas during normal periods of use; and
  - 3. Prevent reclaimed water from coming into contact with drinking fountains, water coolers, or eating areas; and.
  - 4. Secure hose bibbs discharging reclaimed water to prevent use by the public.
- **G.** Hose bibbs. A permittee directly reusing reclaimed water shall secure hose bibbs discharging reclaimed water to prevent use by the public.
- **G.H.** Prohibited activities.
  - 1. Irrigating with untreated sewage;
  - Providing water for human consumption from a reclaimed water source except as allowed in Part
    E of this article.
  - 2.3. Providing or using reclaimed water for any of the following activities:
    - a. Direct reuse for human consumption;
    - <u>b.a.</u> Direct reuse for swimming, wind surfing, water skiing, or other full-immersion water activity with a potential of ingestion; or
    - e.b. Direct reuse for evaporative cooling or misting.
  - 3.4. Misapplying reclaimed water for any of the following reasons:
    - a. Application of a stated class of reclaimed water that is of lesser quality than allowed by this Article for the type of direct reuse application;
    - b. Application of reclaimed water to any area other than a direct reuse site; or
    - c. Allowing runoff of reclaimed water or reclaimed water mixed with stormwater from a direct reuse site, except for:
      - i. agricultural return flow that is directed onto an adjacent field or returned to an open water conveyance; or

- ii. a discharge authorized by an individual or general NPDES or AZPDES permit.
- **H.I.** Signage and Notification. A permittee shall place and maintain signage at locations and provide applicable notification as specified in Table 1 so the public is informed that reclaimed water is in use and that no one should drink from the system.

Table 1. Signage and Notification Requirements for Direct Reuse Sites

Reclaimed Water Class	Hose Bibbs	Residential Irrigation	Schoolground Irrigation	Other Open Access Irrigation	Restricted Access Irrigation	Mobile Reclaimed Water Dispersal
A+	Each bibb	Front yard, or all entrances to a subdivision if the signage is supplemented by written yearly notification to individual homeowners by the homeowner's association.	On premises visible to staff and students	None	None	Back of truck or on tank On dispersal equipment and visible to the public
A	Each bibb	Front yard, or all entrances to a subdivision if the signage is supplemented by written yearly notification to individual homeowners by the homeowner's association.	On premises visible to staff and students	None	None	Back of truck or on tank On dispersal equipment and visible to the public

B+	Each	Direct Reuse Not	Direct Reuse	Direct	1. Ingress points	Back of truck
	bibb	Allowed	Not Allowed	Reuse Not	2. On premises or	or on tank On
				Allowed	at reasonably	dispersal
					spaced intervals	equipment and
					not more than 1/4	visible to the
					mile, as applicable	<u>public</u>
					to the use	
					3. Notice on golf	
					score cards, if	
					applicable	
В	Each	Direct Reuse Not	Direct Reuse	Direct	1. Ingress points 2.	Back of truck
	bibb	Allowed	Not Allowed	Reuse Not	On premises or at	or on tank On
				Allowed	reasonably spaced	dispersal
					intervals not more	equipment and
					than 1/4 mile, as	visible to the
					applicable to the	<u>public</u>
					use	
					3. Notice on golf	
					score cards, if	
					applicable	
С	Each	Direct Reuse Not	Direct Reuse	Direct	1. Ingress points 2.	Back of truck
	bibb	Allowed	Not Allowed	Reuse Not	On premises or at	or on tank On
				Allowed	reasonably spaced	<u>dispersal</u>
					intervals not more	equipment and
					than 1/4 mile, as	visible to the
					applicable to the	<u>public</u>
					use	
					l	

Note: All impoundments with open access including lakes, ponds, ornamental fountains, waterfalls, and other water features shall be posted with signs regardless of the class of reclaimed water.

J. Pipeline Conveyances of Reclaimed Water.

- 1. Applicability. Any person constructing a pipeline conveyance, whether new or a replacement of an existing pipeline, shall meet the requirements of this subsection.
- 2. A person shall design and construct a pipeline conveyance system using good engineering judgement following standards of practice.
- 3. A person shall construct a pipeline conveyance so that:
  - a. Reclaimed water does not find its way into, or otherwise contaminate, a potable water system;
  - b. System structural integrity is maintained; and
  - c. The capability for inspection, maintenance, and testing is maintained.
- 4. A person shall construct a pipeline conveyance and all appurtenances conducting reclaimed water to withstand a static pressure of at least 50 pounds per square inch greater than the design working pressure without leakage as determined in A.A.C. R18-9-E301(D)(2)(j).
- 5. A person shall provide a pipeline conveyance with thrust blocks or restrained joints where needed to prevent excessive movement of the pipeline.
- 6. The following requirements for minimum separation distance apply. A person shall:
  - a. Locate a pipeline conveyance no closer than 50 feet from a drinking water well unless the pipeline conveyance is constructed as specified under subsection (J)(5)(c);
  - b. Locate a pipeline conveyance no closer than two feet vertically nor six feet horizontally from
    a potable water pipeline unless the pipeline conveyance is constructed as specified under
    subsection (J)(5)(c);
  - c. Construct a pipeline conveyance that does not meet the minimum separation distances specified in subsections (J)(5)(a) and (J)(5)(b) by encasing the pipeline conveyance in at least six inches of concrete or using mechanical joint ductile iron pipe or other materials of equivalent or greater tensile and compressive strength at least 10 feet beyond any point on the pipeline conveyance within the specified minimum separation distance; and
  - d. If a reclaimed water system is supplemented with water from a potable water system, separate the potable water system from the pipeline conveyance by an air gap.

### 7. A person shall:

- a. For a pipeline conveyance, eight inches in diameter or less, use pipe marked on opposite sides in English: "CAUTION: RECLAIMED WATER, DO NOT DRINK" in intervals of three feet or less and colored purple or wrapped with durable purple tape.
- b. For a mechanical appurtenance to a pipeline conveyance, ensure that the mechanical appurtenance is colored purple or legibly marked to identify it as part of the reclaimed water distribution system and distinguish it from systems for potable water distribution and sewage collection.

- **K.** Open Water Conveyances of Reclaimed Water.
  - 1. This subsection applies to an open water conveyance, regardless of the date of construction.
  - 2. A person shall maintain an open water conveyance to prevent release of reclaimed water except as allowed under federal and state regulations. The maintenance program shall include periodic inspections and follow-up corrective measures to ensure the integrity of conveyance banks and capacity of the conveyance to safely carry operational flows.
  - 3. Signage for Class B+, B, and C Reclaimed Water. A person shall:
    - a. Ensure that signs state: "CAUTION: RECLAIMED WATER, DO NOT DRINK," and display the international "do not drink" symbol;
    - b. Place signs at all points of ingress and, if the open water conveyance is operated with open access, at least every 1/4-mile along the length of the open water conveyance; and
    - c. Ensure that signs are visible and legible from both sides of the open water conveyance.

# <u>R18-9-B703.</u> General Provisions for Reclaimed Recycled Water Individual Permit for Reclaimed Water General Provisions

- **A.** A Reclaimed Recycled Water Individual Permit for Reclaimed Water is obtained under R18-9-705 R18-9-A703. A Reclaimed Recycled Water Individual Permit for Reclaimed Water:
  - 1. Is valid for five years;
  - 2. May be amended, transferred, reissued, or revoked by the Director based on whether the permittee meets the terms of the individual permit and the requirements of this Article Must be updated as prescribed by R18-9-A705; and
  - 3. Continues, pending the issuance of a new permit, with the same terms following its expiration if the following are met:
    - a. The permittee submits an application for a new permit at least  $\frac{420}{60}$  days before the expiration of the existing permit; and
    - b. The permitted activity is of a continuing nature.
- **B.** A Reclaimed Recycled Water Individual Permit for Reclaimed Water shall contain, if applicable:
  - 1. The class of reclaimed water to be applied for direct reuse or the alternative water quality criteria appropriate for a direct reuse type not listed in 18 A.A.C. 11, Article 3, Table A that ADEQ may allow under R18-11-309;
  - 2. Specific types of direct reuse applications or and any limitations on reuse;
  - 3. Requirements for monitoring reclaimed water quality and flow to demonstrate compliance with this Article and 18 A.A.C. 11, Article 3;
  - 4. Requirements for reporting the following data to demonstrate compliance with this Article and 18 A.A.C. 11. Article 3:

- a. Water quality test results demonstrating that the reclaimed water meets the applicable standards for the class of water <u>or the alternative water quality criteria</u> identified in subsection (B)(1), and
- b. The total volume of reclaimed water generated for direct reuse.
- 5. Requirements for maintaining records of all monitoring information and monitoring activities that include:
  - a. The date, description of sampling location, and time of sampling or measurement;
  - b. The name of the person who performed the sampling or measurement;
  - c. The date the analyses were performed;
  - d. The name of the person who performed the analyses;
  - e. The analytical techniques or methods used;
  - f. The results of the analyses; and
  - g. Documentation of sampling technique, sample preservation, and transportation, including chain-of-custody forms.
- 6. Requirements to retain all monitoring activity records and results, including all original strip chart recordings data for continuous monitoring instrumentation, and calibration and maintenance records for five years from the date of sampling or analysis. The Director shall extend the five-year retention period:
  - a. During the course of an unresolved litigation regarding compliance with the permit conditions,
     or
  - b. For any other justifiable cause.
- 7. A requirement to allow all end users access to the records of physical, chemical, and biological quality of the reclaimed water.
- 8. Signage or other notification requirements appropriate to the use; and
- 9. Closure requirements, if applicable.
- C. Permit transfer. A permittee may transfer a Reclaimed Water Individual Permit to another person if the following conditions are met:
  - 1. The permittee notifies the Director of the proposed transfer.
  - 2. The permittee submits a written agreement containing a specific date for the transfer of permit responsibility and coverage between the current permittee and the proposed new permittee, including an acknowledgment that the existing permittee is liable for violations up to the date of transfer and that the proposed new permittee will be liable for violations from that date forward.
  - 3. The notice specified in subsection (C)(1) contains any information for the proposed new permittee that is changed from the information submitted under R18-9-705(B).

4. The Director, within 30 days of receiving a transfer notice from the permittee, does not notify both the current permittee and proposed new permittee of the intent to amend, revoke, or reissue the permit or require the proposed new permittee to file an application for a new permit rather than agreeing to transfer the current permit.

# <u>R18-9-B704.</u> Type 2 Reclaimed Recycled Water General Permit for Direct Reuse of Class A+Reclaimed Water

- **A.** A Type 2 Reclaimed Recycled Water General Permit for Direct Reuse of Class A+ Reclaimed Water allows any direct reuse application of reclaimed water listed in 18 A.A.C. 11, Article 3, Appendix Table A, if the conditions in this Article are met.
- **B.** Record maintenance. A permittee shall maintain records for five years that describe the direct reuse site and the total amount of reclaimed water used annually for the permitted direct reuse activity. The records shall be made available to the Department upon request.
- C. A permittee shall post signs or provide notification or both as specified in R18-9-704(H) R18-9-B702(I).
- **D.** No lining is required for an impoundment storing Class A+ reclaimed water.

# <u>R18-9-B705.</u> Type 2 Reclaimed Recycled Water General Permit for Direct Reuse of Class A Reclaimed Water

- **A.** A Type 2 Reclaimed Recycled Water General Permit for the Direct Reuse of Class A Reclaimed Water allows any direct reuse application of reclaimed water listed in 18 A.A.C. 11, Article 3, Appendix Table A, if the conditions in this Article are met.
- **B.** Records and reporting. A permittee shall:
  - 1. Maintain records containing the following information for five years, and make them available to the Department upon request:
    - a. The direct reuse site,
    - b. The volume of reclaimed water applied monthly for each category of direct reuse activity listed in 18 A.A.C. 11, Article 3, Appendix Table A,
    - c. The total nitrogen concentration of the reclaimed water applied, if applicable, and
    - d. The acreage and type of vegetation to which the reclaimed water is applied, if applicable.
  - Report annually to the Department on or before the anniversary date of the Notice of Intent to Use Recycled Water:

- a. The volume of reclaimed water received,
- b. The type of reclaimed water application, and
- c. If used for irrigation, the vegetation and acreage irrigated.
- **C.** Nitrogen management. A permittee shall ensure that:
  - 1. Impoundments storing reclaimed water allowed by the general permit are lined using a low-hydraulic conductivity artificial or site-specific liner material achieving a calculated discharge rate less than 550 gallons per acre per day; and
  - 2. The application rates of the reclaimed water are based on one of the following:
    - a. The If assigned, the water allotment assigned specified by the Arizona Department of Water Resources;
    - b. A water balance that considers consumptive use of water by the crop, turf, or landscape vegetation; or
    - c. An alternative method approved by the Department.
- **D.** In addition to the Notice of Intent to Use Recycled Water for Direct Reuse of Reclaimed Water specified in R18-9-708(B)(2) R18-9-A704(B)(2), the applicant shall provide a list of impoundments, water depth, freeboard, and the liner characteristics and the method chosen from the list in subsection (C)(2).
- **E.** The permittee shall post signs or provide notification, or both, as specified in R18-9-704(H) R18-9-B702(I).

# <u>R18-9-B706.</u> Type 2 Reclaimed Recycled Water General Permit for Direct Reuse of Class B+Reclaimed Water

- **A.** A Type 2 Reclaimed Recycled Water General Permit for Direct Reuse of Class B+ Reclaimed Water allows any direct reuse application of Class B and Class C reclaimed water listed in 18 A.A.C. 11, Article 3, Appendix Table A, if the conditions in this Article are met.
- **B.** A permittee shall comply with the record maintenance and posting requirements established under R18-9-712 R18-9-B704 and make records available to the Department upon request.
- C. No lining is required for an impoundment storing Class B+ reclaimed water.

# R18-9-B707. Type 2 Reclaimed Recycled Water General Permit for Direct Reuse of Class B Reclaimed Water

**A.** A Type 2 Reclaimed Recycled Water General Permit for the Direct Reuse of Class B Reclaimed Water allows the direct reuse application of Class B and Class C reclaimed water listed in 18 A.A.C. 11, Article 3, Appendix Table A, if conditions in this Article are met.

**B.** A permittee shall comply with the requirements established under R18-9-713(B) R18-9-B705(B), (C), (D), and (E).

# R18-9-B708. Type 2 Reclaimed Recycled Water General Permit for Direct Reuse of Class C Reclaimed Water

- **A.** A Type 2 Reclaimed Recycled Water General Permit for the Direct Reuse of Class C Reclaimed Water allows the direct reuse application of Class C reclaimed water listed in 18 A.A.C. 11, Article 3, Appendix Table A, if conditions in this Article are met.
- **B.** A permittee shall comply with the requirements established under R18-9-713(B) R18-9-B705(B), (C), (D), and (E).

# <u>R18-9-B709.</u> Type 3 Reclaimed Recycled Water General Permit for a Reclaimed Water Blending Facility

- A. Permit conditions.
  - 1. A Type 3 Reclaimed Recycled Water General Permit for a Reclaimed Water Blending Facility allows the blending of reclaimed water with other water, if the conditions in this Article are met.
  - 2. Blending reclaimed water with industrial wastewater or with reclaimed water from an industrial wastewater treatment plant is not authorized by this general permit.
- **B.** A person shall file with the Department a Notice of Intent to Operate a reclaimed water blending facility at least 90 days before the date the proposed activity will start on a form provided by the Department. The Notice of Intent to Operate shall include:
  - 1. The name, address, e-mail address, and telephone number of the applicant;
  - 2. The social security number of the applicant, if the applicant is an individual;
  - 3.2. The name, address, e-mail address, and telephone number of a contact person;
  - 4.3. The source and volume of reclaimed water to be blended;
  - 5.4. The class of reclaimed water to be blended;
  - 6.5. The source, volume, and quality of other water to be blended;
  - 7.6. A legal description of the reclaimed water blending facility, including The latitude and longitude coordinates of the blending facility;
  - 8.7. A description of the reclaimed water blending facility, including a demonstration that the proposed blending methodology will meet the standards established in 18 A.A.C. 11, Article 3 for the class of reclaimed water the facility will produce;

- 9.8. A signature on the notice of intent certifying The applicant's certification that the applicant agrees to comply with the requirements of this Article, 18 A.A.C. 11, Article 3, and the terms of this recycled water general permit; and
- 10.9. The applicable permit fee specified under 18 A.A.C. 14.
- C. A person shall not operate a reclaimed water blending facility until the Department issues a written Verification of General Permit Conformance Recycled Water Authorization under R18-9-708(C) R18-9-A704(C).
- **D.** A permittee shall monitor:
  - 1. The blended water quality for total nitrogen and fecal coliform at frequencies specified by the class of reclaimed water in 18 A.A.C. 11, Article 3.
    - a. If the concentration in the blended water of either total nitrogen or fecal coliform, as applicable, exceeds the limits for the applicable reclaimed water class established in 18 A.A.C. 11, Article 3, within 30 days of the exceedance, the permittee shall submit a report plan to the Department within 30 days with a proposal to change the blending process or to otherwise correct the deficiency. The permittee shall also double the monitoring frequency for the next two four months.
    - b. If another exceedance occurs within the interval of increased monitoring, the permittee shall submit an application within 45 days for a Reclaimed Recycled Water Individual Permit for Reclaimed Water.
  - 2. The volume of reclaimed water, the volume of the other water, and the total volume of blended water delivered for direct reuse on a monthly basis.
- **E.** The permittee shall report the results of the monitoring under subsection (D) to the Department on or before the anniversary date of the verification approval by January 31, for the immediately preceding calendar year, and shall make this information available to the end users.

### R18-9-B710. Type 3 Reclaimed Recycled Water General Permit for a Reclaimed Water Agent

- **A.** A Type 3 Reclaimed Recycled Water General Permit for a Reclaimed Water Agent allows a person to operate as a Reclaimed Water Agent if that the conditions of this Article are met, and the following conditions are met for the class of reclaimed water delivered by the Reclaimed Water Agent:
  - 1. Signage and notification requirements specified under R18-9-704(H) R18-9-B702(I), as applicable;
  - Impoundment liner requirements specified under R18-9-712(D), R18-9-713(C), R18-9-714(C), R18-9-715(B), or R18-9-716(B) R18-9-B704(D), R18-9-B705(C), R18-9-B706(C), R18-9-B707(B) or R18-9-B708(B), as applicable; and

- 3. Nitrogen management requirements specified under R18 9 713(C), R18 9 715(B), and R18 9 716(B) R18-9-B705(C), R18-9-B707(B), R18-9-B708(B), as applicable.
- **B.** A person holding a Type 3 Reclaimed Recycled Water Permit for a Reclaimed Water Agent:
  - 1. Is responsible for the direct reuse of reclaimed water by more than one end user instead of direct reuse by the end users under separate Type 2 Recycled Water General Permits, and
  - 2. Shall maintain a contractual agreement with each end user stipulating any end user responsibilities for the requirements specified under subsection (A).
- C. A person shall file with the Department a Notice of Intent to Operate as a reclaimed water agent at least 90 days before the date the proposed activity will start. The Notice of Intent to Operate shall include:
  - 1. The name, address, e-mail address, and telephone number of the applicant;
  - 2. The social security number of the applicant, if the applicant is an individual;
  - 3.2. The name, address, e-mail address, and telephone number of a contact person;
  - 4. 3. The following information for each end user to be supplied reclaimed water by the applicant:
    - a. The name, address, e-mail address, and telephone number of the end user;
    - b. A legal description of each direct reuse site, including A system map showing the locations of the direct reuse sites and the latitude and longitude coordinates of each site; and
    - c. A description of each direct reuse activity, including the type of vegetation, acreage, and annual volume of reclaimed water to be used, unless Class A+ or Class B+ reclaimed water is delivered.
  - 5.4. The source, class, and annual volume of reclaimed water to be delivered by the applicant;
  - 6. 5. A description of the contractual arrangement between the applicant and each end user, including any end user responsibilities for the requirements specified under subsection (A); and
  - 7. 6. The applicable permit fee specified under 18 A.A.C. 14.
- **D.** A proposed reclaimed water agent shall not distribute reclaimed water to end users until the Department issues a written Verification of General Permit Conformance Recycled Water Authorization issued under R18-9-708(C) R18-9-A704(C).
- **E.** A reclaimed water agent shall record and annually report the following information to the Department, on or before each anniversary date of the verification approval by January 31, for the immediately preceding year:
  - 1. The total volume of reclaimed water delivered by the reclaimed water agent;
  - 2. The volume of reclaimed water delivered to each end user for Class A, Class B, and Class C reclaimed water; and
  - 3. Any change in the information submitted under subsection (C).

**F.** The reclaimed water agent shall notify the Department before the end of each calendar year of any changes in the information submitted under subsection (C).

## PART C. RECYCLED INDUSTRIAL WASTEWATER

# <u>R18-9-C701.</u> Reclaimed Recycled Water Individual Permit Where for Industrial Wastewater Influences the Characteristics of Reclaimed Water That Is Reused

- **A.** The following activities are prohibited unless a Reclaimed Recycled Water Individual Permit is obtained under R18-9-705 R18-9-A703:
  - 1. Direct reuse <u>Use</u> of reclaimed water from a sewage treatment facility that is combined with industrial wastewater or that is combined with reclaimed water from an industrial wastewater treatment facility.
  - 2. Direct reuse <u>Use</u> of reclaimed water from an industrial wastewater treatment facility for production or processing of a crop or substance that may be used as human or animal food.
- **B.** In addition to the requirements in R18-9-705(B) R18-A703(A), an application for a Reclaimed Recycled Water Individual Permit shall include:
  - 1. Each source of the industrial wastewater with Standard Industrial Code or North American Industry Classification System Code, and the projected rates and volumes from each source;
  - 2. The chemical, biological, and physical characteristics of the industrial wastewater from each source; and
  - 3. If reclaimed water will be used in the processing of any crop or substance that may be used as human or animal food, the information regarding food safety and any potential adverse health effects of this direct reuse.

## PART D. GRAY WATER

# R18-9-D701. Type 1 Reclaimed Recycled Water General Permit for Gray Water

- **A.** A Type 1 Reclaimed Recycled Water General Permit for Gray Water allows private residential direct reuse use of gray water for a flow of less than 400 gallons per day if all the following conditions are met:
  - 1. Human contact with gray water and soil irrigated by gray water is avoided;
  - 2.1. Gray water originating from the residence is used and contained within the property boundary for household gardening, composting, lawn watering, or landscape irrigation watering;
  - 2. Human contact with gray water and soil watered by gray water is avoided;

- 3. Surface application of gray water is not used for <u>irrigation watering</u> of food plants, except for <u>citrus</u> and nut trees and shrubs which have an edible portion that does not come into contact with the gray water;
- 4. The gray water does not contain hazardous chemicals derived from activities such as cleaning car parts, washing greasy or oily rags, or disposing of waste solutions from home photo labs or similar hobbyist or home occupational activities;
- 5. The gray water does not contain water used to wash diapers or similarly soiled or infectious garments;
- 5.6. The application of gray water is managed to minimize standing water on the surface by using measures such as avoiding overwatering, distributing the gray water beneath a mulch or other cover, and using best practices to improve soil condition and increase filtration;
- 6.7. The gray water system is constructed so that if If blockage, plugging, or backup, or overload of the system occurs, gray water can be directed into the sewage collection system or on site wastewater treatment and disposal system, as applicable gray water distribution shall cease until the deficiency is corrected. The gray water system may include a means of filtration components to reduce plugging and blockage and backup and be operated using best practices to extend system lifetime;
- 7.8. Any gray Gray water storage tank is surge tanks, if any, are covered to restrict access and to eliminate habitat for mosquitoes or other vectors, and holding time is 24 hours or less to avoid development of anaerobic conditions and odors;
- 8.9. The gray water system is sited outside of a floodway;
- 9.10. The gray water system is operated to maintain a minimum vertical separation distance of at least five feet from the point of gray water application to the top of the seasonally high groundwater table;
- 10.11. For <u>a residences residence</u> using an on-site wastewater treatment facility for black water treatment and disposal, the use of a gray water system does not change the design, capacity, or reserve area requirements for the on-site wastewater treatment facility at the residence, and ensures that the facility can handle the combined black water and gray water flow if the gray water system fails or is not fully used;
- 41.12. Any pressure piping used in a gray water system that may be susceptible to cross connection with a potable water system clearly indicates that the piping does not carry potable water; and
- 12. Gray water applied by surface irrigation does not contain water used to wash diapers or similarly soiled or infectious garments unless the gray water is disinfected before irrigation; and

- 13. Surface irrigation by application of gray water is only by flood or drip irrigation distribution methods. Flood distribution methods may include containment by horticultural mulch basins and swales.
- **B.** Prohibitions. The following are prohibited:
  - 1. Gray water use for purposes other than irrigation watering and composting, and
  - 2. Spray irrigation. Application of gray water by a spray method.
- C. Towns, cities, or counties may further limit the use of gray water described in this Section by rule or ordinance.

### R18-9-D702. Type 3 Reclaimed Recycled Water General Permit for Gray Water

- **A.** A Type 3 Reclaimed Recycled Water General Permit for Gray Water allows a for the use of gray water irrigation system for landscape irrigation and composting if:
  - 1. The general permit described in R18-9-D701 does not apply,
  - 2. The flow is not more than 3000 gallons per day, and
  - 3. The gray water system satisfies the notification, design, and installation requirements specified in subsection subsections (B) and (C).
- **B.** A person shall file a Notice of Intent to Operate a Gray Water Irrigation System with the Department at least 90 days before the date the proposed activity will start on a form provided by the Department. The Notice of Intent to Operate shall include:
  - 1. The name, address, e-mail address, and telephone number of the applicant;
  - 2. The social security number of the applicant, if the applicant is an individual;
  - 3. A legal description of the direct reuse site, including The latitude and longitude coordinates;
  - 3. A description of the sources of gray water and calculations demonstrating that the flow is not more than 3000 gallons per day;
  - 4. Design plans for the gray water irrigation system;
  - 5. A signature on the Notice of Intent to Operate certifying The applicant's certification that the applicant agrees to comply with the requirements of this Article and the terms of this Reclaimed Recycled Water General Permit for Gray Water; and
  - 6. The applicable permit fee specified under 18 A.A.C. 14.
- **C.** The following technical requirements apply to the design, and installation, and operation of a gray water irrigation system allowed under this Reclaimed Recycled Water General Permit for Gray Water:
  - 1. Design of the gray water irrigation system shall meet the on site wastewater treatment facility requirements under R18 9 A312(C), (D)(1), (D)(2), (E)(1), (G), and R18 9 E302(C)(1), except the

- septic tank specified in R18-9-E302(C)(1) is not required if pretreatment of gray water is not necessary for the intended application;
- 2. Design of the dispersal trenches for the gray water irrigation system shall meet the on-site wastewater treatment facility requirements for shallow trenches specified in R18-9-E302(C)(2);
- 3. The depth of the gray water dispersal trenches shall be appropriate for the intended irrigation use but not more than 5 feet below the finished grade of the native soil; and
- 4. The void space volume of the aggregate fill in the gray water dispersal trench below the bottom of the distribution pipe shall have enough capacity to contain two days of gray water at the design flow.
- 1. Human contact with gray water and soil irrigated by gray water is avoided;
- 2. The design shall ensure that gray water is used and contained within the property boundary for landscape irrigation or composting;
- 3. Gray water is not used for irrigation of food plants, except for trees and shrubs which have an edible portion that does not come into contact with the gray water;
- 4. The gray water may contain water from drinking fountains but does not contain hazardous chemicals derived from industrial, hobbyist, or similar activities at the site;
- 5. Gray water does not contain water used to wash diapers or similarly soiled or infectious garments;
- 6. The application of gray water shall not result in standing water on the surface;
- 7. The gray water system is constructed so that if blockage, plugging, or backup of the system occurs, gray water can be directed into the sewage collection system or on-site wastewater treatment and disposal system, as applicable;
- 8. Any tanks containing gray water are covered to restrict access and to eliminate habitat for mosquitoes or other vectors, and holding time is minimized to avoid development of anaerobic conditions and odors;
- 9. The gray water system is sited outside of a floodway;
- 10. The gray water system is operated to maintain a minimum vertical separation distance of at least five feet from the point of gray water application to the top of the seasonally high groundwater table;
- 11. If an on-site wastewater treatment facility is used for black water treatment and disposal, the use of a gray water system does not change the design, capacity, or reserve area requirements for the on-site wastewater treatment facility so that the facility may handle the combined black water and gray water flow;
- 12. Any piping used in a gray water system that may be susceptible to cross connection with a potable water system clearly indicates that the piping does not carry potable water; and

- 13. Gray water is not applied to an exposed surface but into a bed or trench of permeable material, underneath a mulch cover, through piping installed below the soil surface, or by similar means. Spray irrigation is not allowed.
- **D.** The applicant shall not operate the gray water system until the Department issues a written Recycled Water Authorization under R18-9-A704(C).
- **E.** The Department may review design plans and details and accept a gray water irrigation system issue a Recycled Water Authorization that differs from the requirements specified in subsection (C) if the system provides equivalent performance and protection of human health and water quality.
- **F.** In the Recycled Water Authorization, the Department may require a permittee to report data or information for any of the conditions in this section if the Department deems the reporting necessary to protect human health or water quality or both.

# PART E. PURIFIED WATER FOR POTABLE REUSE

## R18-9-E701. Recycled Water Individual Permit for an Advanced Water Treatment Facility

- A. A Recycled Water Individual Permit for an Advanced Water Treatment Facility, for treatment of reclaimed water, is obtained under R18-9-A703.
- B. In addition to the information required by R18-9-A703(A)(2), the applicant shall submit a design report for the advanced water treatment facility that includes the following information:
  - 1. Source water characterization, including quantity, quality, and variability of source flows;
  - 2. Description of and results from a pilot water treatment system for the facility;
  - 3. Technologies, processes, and methodologies to be employed for microbial control;
  - 4. Logarithmic reduction targets for microbial control;
  - 5. Identification and description of technologies, processes, and methodologies for chemical control;
  - 6. Plan of monitoring for public health protection;
  - 7. Commissioning and startup plan, including preoperational and startup testing and monitoring, expected time-frame for meeting full operational performance, and any other special startup condition that may merit consideration in the individual permit;
  - 8. Operation and maintenance plan including corrective actions for out-of-range monitoring results and contingencies for non-compliant water;
  - 9. Operator training plan; and
  - 10. Documentation of technical, financial, and management capability.