

Reclaimed Water Stakeholder Issues Matrix

Topic	ADEQ Preliminary Ideas	12- Feb	Comment
Conveyances/Infrastructure	x		Need to have cross connection control
Conveyances/Infrastructure	x		Technical standards: More comprehensive criteria for design, construction, O&M
Conveyances/Infrastructure		x	Establish best management practices for design, construction, operation, and maintenance of reclaimed water conveyances and infrastructure.
Conveyances/Infrastructure		x	Require active management of reclaimed water distribution systems.
Conveyances/Infrastructure		x	Establish criteria for reclaimed water distribution systems that maintain water quality during distribution to ensure that water is safe for allowed end uses at all times (for example, maintenance of chlorine residual).
Conveyances/Infrastructure		x	Establish best management practices for reclaimed water conveyances and infrastructure; statewide rules would be helpful. If utilities already have adopted standards, they should be allowed to follow those standards, however.
Conveyances/Infrastructure		x	Because reclaimed water quality may change considerably during distribution, ensure that water quality remains safe for intended uses.
Conveyances/Infrastructure		x	By requiring enhanced management of distribution systems to maintain water quality during distribution, Class A and A+ water will remain safe for open access by humans and suitable for all intended uses.
Conveyances/Infrastructure		x	Reclaimed system cross-connection control should apply only if delivery is to a facility that has the ability to return pressurized flow, for example, industrial use.
Conveyances/Infrastructure		x	Cross-connection control requirements are not necessary in the rule because they are already covered under potable system rules and procedures.
Conveyances/Infrastructure		x	Address criteria for low head pipeline conveyance (less than 50 psi).

What do the topics mean?

Conveyances/Infrastructure includes requirements for pipeline and open water structures that carry reclaimed water
End Uses & Standards includes the water quality standards for reclaimed water and the corresponding list of allowed end uses
Gray Water includes usage and permitting requirements for private residential use and non-residential use of gray water
Other is miscellaneous for anything that doesn't fit into the other categories
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Conveyances/Infrastructure		x	Clarify requirement (or no requirement) to maintain horizontal and vertical separation of reclaimed water and sewer lines, which is confusing under current rules.
Conveyances/Infrastructure		x	In regard to criteria for distribution systems that are specified in rule, add a provision to allow ADEQ to consider alternative criteria similar to the process provided for septic tank and alternative onsite systems in R18-9-A312(G).
Conveyances/Infrastructure		x	Do not add standards or criteria for conveyance systems into the rule. Allow regions or cities to develop site-specific standards.
Conveyances/Infrastructure		x	Add recharge to the list of allowed end uses to facilitate consistent collection of data on volumes distributed to recharge, but only for that reason. Recharge facilities are already permitted under the APP program and should continue to be regulated under it for all other purposes.
Conveyances/Infrastructure		x	Clarify ability to combine a class of reclaimed water with stormwater, surface water, or harvested rainwater in reclaimed water distribution systems.
End Uses and Standards	x		Uses are too limited; need more
End Uses and Standards	x		Monitoring requirements don't match the monitoring requirements under an APP
End Uses and Standards	x		Are new reclaimed water quality classes needed?
End Uses and Standards	x		Are constituents for monitoring, numerical limits, and monitoring frequencies appropriate for the five reclaimed water quality classes to ensure public health protection and safe water quality for the allowed end uses?
End Uses and Standards	x		Add recharge to the list of allowed uses, but exempt it from reclaimed water end use permits because recharge is permitted under APP.
End Uses and Standards		x	New reclaimed water quality classes are needed.
End Uses and Standards		x	Add open loop cooling systems (for example, cooling towers) as an allowed end use.

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End Uses and Standards		x	Add non-contact, non-food, industrial/manufacturing end uses such as metal finishing, boiler feed water, semiconductor/electronics fabs)
End Uses and Standards		x	Review RWQS classes and allowable technologies suitable for achieving classes. Current system is out-of-date and does not address alternative technologies.
End Uses and Standards		x	Revise RWQS to allow for expanded end uses, including acknowledgement of potable reuse opportunities.
End Uses and Standards		x	Define one or more potable reuse classes with strong linkages to Safe Drinking Water Act rules and permitting.
End Uses and Standards		x	Define a RWQS class that can be used as a drinking water source and defer to requirements under Safe Drinking Water Act.
End Uses and Standards		x	Establish potable reuse as an approved end use; need a higher class of RWQS defined for potable reuse.
End Uses and Standards		x	Add surface water augmentation as an approved end use, in conjunction with AZPDES surface water permitting and drinking water source water assessment.
End Uses and Standards		x	Add aquifer recharge/aquifer replenishment as an allowed end use, but maintain all regulatory requirements under the current APP that is issued for such sites.
End Uses and Standards		x	Constituent limits under the different RWQS classes should ensure protection of human health.
End Uses and Standards		x	End use standards should be risk-based and include potable reuse options.

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End Uses and Standards		x	Ensure that monitoring requirements for the different RWQS classes are based on performance standards rather than requiring a specific type of technology.
End Uses and Standards		x	For Class A+ and A water, allow alternatives to filtration. Better yet, develop standards based on performance (meeting specified quality standards) rather than requiring particular technologies.
End Uses and Standards		x	Make it easier to distribute multiple classes of reclaimed water from one wastewater treatment plant, for example split streams or when a WWTP is not achieving a higher class and must distribute a lower class water to corresponding lower class end uses.
End Uses and Standards		x	Review and address inconsistencies between treatment standards for sewage treatment plant BADCT and the corresponding requirements under the RWQS classes.
End Uses and Standards		x	Review current monitoring standards to determine whether they are adequate to protect human health and appropriate for the corresponding allowed end uses.
End Uses and Standards		x	Review and revise total coliform and E. coli standards.
End Uses and Standards		x	Consider changing total coliform/E. coli standards to match surface water quality standards for full body contact (less conservative is OK), or otherwise justify more stringent standard with science-based risk assessment.
End Uses and Standards		x	Enteric virus standard needs to be reviewed. No commercial Arizona lab is certified to perform this test. Therefore, long delays are experienced when required to perform this analysis. Results may take more than a month, which does not allow correction of the problem in a timely manner.
End Uses and Standards		x	Consider addition of viral surrogates to the standards.
Gray Water	x		Need general permit for non-irrigation uses

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Gray Water	x		Review conditions of use for private residential gray water for clarity and fitness.
Gray Water	x		Develop more appropriate general permits for non-residential use of gray water.
Gray Water		x	Review residential gray water criteria. In particular, establish criteria to ensure that no gray water is discharged to or ponds on the land surface or otherwise creates a risk of vector-borne disease.
Gray Water		x	Require maintenance of residential gray water systems so that flow is not to the land surface.
Gray Water		x	Need to establish better water quality standards for residential gray water use so that public health is protected.
Gray Water		x	Need to ensure that residential gray water systems are inspected and approved to prevent contamination of potable systems.
Gray Water		x	Need ensure that there is a log of all residential gray water systems so that they can be inspected (once every 5 or 10 years) to protect from source water vectors (think Zika), prevent comingling with stormwater, and protect human health and the environment (excessive salt loading in soil)
Gray Water		x	The rules for residential gray water use need to be revisited as the current permit-less process is not truthful and not working.
Gray Water		x	Make gray water permitting easy so that people will install systems secretly to avoid the red tape.
Gray Water		x	Residential gray water users should have to submit a notice of intent to the administrative authority and pay an administrative fee for registration.

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Gray Water		x	ADEQ should delegate permitting of residential gray water to local administrative authorities as ADEQ now does for the permitting of septic tanks and alternative onsite systems.
Gray Water		x	Residential gray water use is regional and the uses and practices are different, therefore the program should be delegated to local county and city authorities.
Gray Water		x	Expand the permitting of non-residential gray water use to beyond irrigation.
Gray Water		x	Develop streamlined gray water permits for commercial and industrial laundries.
Gray Water		x	Integrate gray water use into stormwater use in a manner that protects human health due to microbial and chemical contamination and makes use of the gray water during months of low rainfall (and therefore stormwater).
Other	x		No criteria for operators of reclaimed water distribution systems
Other		x	Clarify health concern differences between reclaimed water and different types of stormwater (roof vs. asphalt derived). Would different end uses be appropriate dependent on the source?
Other		x	Review and address the monitoring requirements for recharge of treated wastewater under an APP at a groundwater point of compliance (which are extensive) versus the requirements established for allowable end uses under the different reclaimed water classes (which are less extensive but still protective).
Other		x	Qualified operators of reclaimed water systems are needed. A new certification is not needed, rather endorsements or specializations under current operator certification categories for drinking water or wastewater systems are strongly recommended.

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Other		x	Is reclaimed water that is recharged considered groundwater when it is pumped out?
Permits/Permitting Process		x	Agent permit should be changed to reclaimed water distribution system permit to ensure consistent permitting requirements and technical criteria across all distribution systems.
Permits/Permitting Process		x	Don't abolish blending permit—it would limit opportunities for flexibility. In fact, consider expanding the scope of the blending permit to address issues such as combining reclaimed and surface waters, providing for additional treatment that doesn't fit the narrow terms of the current blending permit, etc.
Permits/Permitting Process		x	Consider how reclaimed water can be blended with another type of water (i.e., surface water or groundwater) so that it can be distributed for a reclaimed water use currently in Appendix A, other uses not in Appendix A, or as a potable source.
Permits/Permitting Process		x	Add provisions for amending the reclaimed water permit, including making simple amendments similar to the major/other/minor amendment processes in APP.
Permits/Permitting Process		x	Is there a need to add amendment provisions?
Permits/Permitting Process		x	Review and revise signage requirements.
Permits/Permitting Process		x	Clarify terminology or make consistent between ADEQ (reclaimed water) and ADWR (effluent).
Permits/Permitting Process		x	Modernize terminology to reflect the high quality of reclaimed water that is being distributed for reuse (for example, adopt the term recycled water). Further examples include ADEQ's use of the terms sewage treatment plant and wastewater treatment facility when the term water reclamation facility is increasingly being used in the industry.

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Permits/Permitting Process		x	For certain uses of Class A+ reclaimed water, consider regulating under a Type 1 permit (no formal application or registration, permittee simply follows criteria specified in rule) as opposed to current regulation under a Type 2 permit (formal submittal of Notice of Intent to ADEQ).
Permits/Permitting Process		x	Remove direct potable reuse prohibition in R18-9-704(G)(2)(a). Develop criteria based on treatment and performance under which ADEQ can permit potable reuse scenarios.
Permits/Permitting Process		x	Not necessary to distinguish between direct and indirect potable reuse if encompassing criteria can be developed that are performance based, so that uses of different technologies are not limited or a certain technology is required that not be appropriate in all situations or might be superseded by better technologies.
Permits/Permitting Process	x		Requirements for cross-connection control
Permits/Permitting Process	x		Review signage requirements for appropriateness and update as needed
Permits/Permitting Process	x		No process to amend permits
Permits/Permitting Process	x		Review permit renewal periods
Permits/Permitting Process	x		Should the Class A+ permit be redesignated from a Type 2 permit to a Type 1 permit?
Permits/Permitting Process	x		Should the Blending Facility Permit be abolished?
Permits/Permitting Process	x		Should the Agent Permit be changed to a Reclaimed Water Distribution System permit and required for pipeline distribution systems of reclaimed water.

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