	<b>Water Quality Division</b> <b>Substantive Policy</b>	Page 1 of 4 plus Attachment
		Rev. 3001.2017
	<b>Temporary Interpretation of “Direct Reuse for Human Consumption”</b>	Effective: 04/27/2017

This Substantive Policy statement is advisory only. A substantive policy statement does not include internal procedural documents that only affect the internal procedures of the agency and does not impose additional requirements or penalties on regulated parties or include confidential information or rules made in accordance with the Arizona Administrative Procedure Act. If you believe that this substantive policy statement does impose additional requirements or penalties on regulated parties, you may petition the agency under Arizona Revised Statutes section 41-1033 for a review of the statement.

## 1.0 **Purpose**

This policy establishes a temporary interpretation of “direct reuse for human consumption” under A.A.C. R18-9-704 (2016).

This policy clarifies that reclaimed water properly treated and produced by an advanced water treatment facility is potable water and is no longer considered reclaimed water.

This policy will allow for the advancement of new technology and innovation, increased augmentation of Arizona’s water supply, and beneficial use of Class A+ or Class B+ reclaimed source water.

## 2.0 **Definitions**

**Advanced Water Treatment Facility** – Means a facility that uses more state-of-the-art technologies than a wastewater treatment plant. An advanced water treatment facility consists of a treatment train that includes a sequence of technologies that treats and purifies Class A+ or Class B+ reclaimed water to produce potable water suitable for distribution for human consumption. Such a facility includes, for example, ultrafiltration, reverse osmosis, advanced oxidation, granular activated carbon, and chlorination.

**A.A.C.** – Means Arizona Administrative Code.

**Class A+** – Means the same as it does in A.A.C. R18-11-303 (2016).

**Class B+** – Means the same as it does in A.A.C. R18-11-305 (2016).

**Direct Reuse** – Means the same as it does in A.A.C. R18-9-701(1) (2016), which is repeated here only for convenience. *“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 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 or reclaimed water, or both, in a workplace subject to a federal program that protects workers from workplace exposures.*

**Potable Water** – Means water that is suitable for human consumption.

**Reclaimed Water** – Means the same as it does in A.R.S. § 49-201(31) and A.A.C. R18-9-701(8) (2016), which is repeated here only for convenience. *“Reclaimed water” means water that has been treated or processed by a wastewater treatment plant or an on-site wastewater treatment facility.*

**Reclaimed Water Individual Permit** – Means a water quality permit obtained under A.A.C. R18-9-705 (2016).

### **3.0 Policy Statement**

- 3.1 Until ADEQ next modifies its reclaimed water rules in 18 A.A.C. 9, Article 7, “direct reuse for human consumption” does not include providing, for human consumption, water from a Class A+ or Class B+ reclaimed water source if the reclaimed water has been further treated by a permitted advanced water treatment facility (“the Facility”) that produces potable water.
- 3.2 The Facility is considered a reclaimed water end user and must be permitted by a Reclaimed Water Individual Permit.
- 3.3 Permit conditions will ensure that the Facility properly produces potable water and that the Facility will only allow potable water to be provided for human consumption.
- 3.4 The individual permit conditions will ensure that the Facility properly produces potable water by mandating that the Facility follow the monitoring requirements of the permit and that the Facility meet treatment performance standards.
- 3.5 At a minimum, treatment performance standards will include all of the following:

- 3.4.1 Before distributing water for human consumption, the Facility will obtain at least one sample of the treated water at the end of the Facility's treatment train.
- 3.4.2 The sample must be analyzed for the following parameters listed in the ADEQ Drinking Water Source Approval Form (Attachment A):
  - 3.4.2.1 Inorganic Chemical Analysis
  - 3.4.2.2 Synthetic Organic Chemical Analysis
  - 3.4.2.3 Volatile Organic Chemical Analysis
  - 3.4.2.4 Microbiological Analysis
- 3.4.3 The analytical results must confirm that the sampled water meets all MCL levels listed on the Drinking Water Source Approval Form.
- 3.4 Potable water properly produced by the Facility is no longer considered reclaimed water subject to regulation under 18 A.A.C. 9, Article 7.

#### **4.0 Audience**

- 4.1 General public
- 4.2 ADEQ Water Quality Permitting and Inspection Staff
- 4.3 ADEQ Management
- 4.4 Advanced Water Treatment Facilities

#### **5.0 Policy Owner (Position Responsible for Implementing & Maintaining the Policy)**

ADEQ Water Quality Division Director

#### **6.0 Communication & Training**

This policy will be noticed in accordance with A.R.S. § 41-1091. ADEQ has posted a draft Notice of Proposed Rulemaking to revise ADEQ's reclaimed water rules in 18 A.A.C. 9, Article 7. The draft rulemaking reflects this policy and the preamble explains the concept in greater detail.

#### **7.0 Compliance & Audit Plan**

An advanced water treatment facility must apply for an individual reclaimed permit under 18 A.A.C. 9, Article 7, in order to provide water from a reclaimed water source for human consumption. ADEQ would enforce such permit in accordance with agency enforcement policies.


**8.0 Review & Revision**

This policy is only valid until ADEQ finalizes its next rule revision of 18 A.A.C. 9, Article 7. This policy expires on the effective date of such rule revision.

**9.0 Additional Documentation Templates and Checklists**

*Attachment A - Drinking Water Source Approval Form*

**10.0 Approved by:**

<b>Title</b>	<b>Name</b>	<b>Signature</b>	<b>Date</b>
ADEQ Water Quality Division Director	Trevor Baggione		4-27-17

**11.0 Historical Note**

N/A.



## **Attachment A**

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Arizona Department Of Environmental Quality

**Drinking Water Source Approval Form**

Samples To Be Taken At Source Only

\_\_\_\_\_  
System ID#

\_\_\_\_\_  
Sample Date

\_\_\_\_\_  
ADEQ Project Number

New System    **YES** \_\_\_\_ **NO** \_\_\_\_

New POE       **YES** \_\_\_\_ **NO** \_\_\_\_

\_\_\_\_\_  
Owner/Contact Person Name

Sample Type

☐ Compliance Monitoring

\_\_\_\_\_  
System Name

\_\_\_\_\_:\_\_\_\_ (24 Hr clock)

\_\_\_\_\_  
Sample Time

55-\_\_\_\_\_  
Well ID Number

\_\_\_\_\_  
Surface Water Intake ID Number

( ) \_\_\_\_\_  
Owner/Contact Person Phone Number

Sample Collection Point/ID

☐ Point of Entry# \_\_\_\_\_

**This form is to be filled out completely, and all pages are to be submitted together. If more than one laboratory participated in the analyses, please attach a copy of the original laboratory report, signed by the performing laboratory, to the back of this form.**

**All Results Shall Be Reported In Milligrams Per Liter (mg/L) Unless Otherwise Specified.**

***Please note:***

*The Arsenic MCL is currently .05 mg/L. However, on Jan. 23, 2006, the Arsenic MCL will be .01 mg/L.*

**Please Mail This Completed Form To:**

**Arizona Department Of Environmental Quality  
Technical Review Unit  
Drinking Water Section (5415B-2)  
1110 W Washington St,  
Phoenix, AZ 85007**

**\*\*\*Inorganic Chemical Analysis\*\*\***

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
	0.05	0.05	Arsenic	1005			<input type="checkbox"/>	<input type="checkbox"/>
	2	2	Barium	1010			<input type="checkbox"/>	<input type="checkbox"/>
	0.005	0.005	Cadmium	1015			<input type="checkbox"/>	<input type="checkbox"/>
	0.1	0.1	Chromium	1020			<input type="checkbox"/>	<input type="checkbox"/>
	1.3*	0.050	Copper	1022			<input type="checkbox"/>	<input type="checkbox"/>
	4.0	2.0	Fluoride	1025			<input type="checkbox"/>	<input type="checkbox"/>
	0.015*	0.0025	Lead	1030			<input type="checkbox"/>	<input type="checkbox"/>
	0.002	0.002	Mercury	1035			<input type="checkbox"/>	<input type="checkbox"/>
	10	5	Nitrate (as N)	1040			<input type="checkbox"/>	<input type="checkbox"/>
	1	0.5	Nitrite	1041			<input type="checkbox"/>	<input type="checkbox"/>
	0.05	0.05	Selenium	1045			<input type="checkbox"/>	<input type="checkbox"/>
	0.006	0.006	Antimony	1074			<input type="checkbox"/>	<input type="checkbox"/>
	0.004	0.004	Beryllium	1075			<input type="checkbox"/>	<input type="checkbox"/>
	0.2	0.2	Cyanide (as free	1024			<input type="checkbox"/>	<input type="checkbox"/>
	0.1	0.1	Nickel	1036			<input type="checkbox"/>	<input type="checkbox"/>
	0.002	0.002	Thallium	1085			<input type="checkbox"/>	<input type="checkbox"/>

\*Action Level

**Laboratory Information**

Specimen Number: \_\_\_\_\_  
 Lab ID Number: \_\_\_\_\_ Name: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Authorized Signature: \_\_\_\_\_

**\*\*\*Physical Analysis\*\*\***

Analysis Method	Contaminant Name	Cont. Code	Analysis Run Date	Result
	Sulfate	1055		
	Sodium	1052		
	PH	1925		
	Alkalinity	1927		
	Hardness/Calcium	1918		
	Langelier Index	1997		
	Temperature (°C)	1996		
	Total Dissolved Solids-TDS	1930		

**Laboratory Information**

Specimen Number: \_\_\_\_\_  
 Lab ID Number: \_\_\_\_\_ Name: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Authorized Signature: \_\_\_\_\_

**\*\*\*Synthetic Organic Chemical Analysis\*\*\***

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
	0.07	0.0001	2,4-D	2105			<input type="checkbox"/>	<input type="checkbox"/>
	0.05	0.0002	2,4,5-TP (Silvex)	2110			<input type="checkbox"/>	<input type="checkbox"/>
	0.002	0.0002	Alachlor	2051			<input type="checkbox"/>	<input type="checkbox"/>
	0.003	0.001	Toxaphene	2020			<input type="checkbox"/>	<input type="checkbox"/>
	0.003	0.0001	Atrazine	2050			<input type="checkbox"/>	<input type="checkbox"/>
	0.04	0.0009	Carbofuran	2046			<input type="checkbox"/>	<input type="checkbox"/>
	0.001	0.00004	Pentachlorophenol	2326			<input type="checkbox"/>	<input type="checkbox"/>
	0.002	0.0002	Chlorodane	2959			<input type="checkbox"/>	<input type="checkbox"/>
	0.0002	0.00002	Dibromochloropropane(DBCP)	2931			<input type="checkbox"/>	<input type="checkbox"/>
	0.00005	0.00001	Ethylene Dibromide (EDB)	2946			<input type="checkbox"/>	<input type="checkbox"/>
	0.0004	0.00004	Heptachlor	2065			<input type="checkbox"/>	<input type="checkbox"/>
	0.0002	0.00002	Heptachlor Epoxide	2067			<input type="checkbox"/>	<input type="checkbox"/>
	0.0002	0.00002	Lindane	2010			<input type="checkbox"/>	<input type="checkbox"/>
	0.04	0.0001	Methoxychlor	2015			<input type="checkbox"/>	<input type="checkbox"/>
	0.0005	0.0001	PCB (Polychlorinated Biohenyls)	2383			<input type="checkbox"/>	<input type="checkbox"/>
	0.0002	0.00002	Benzo(a)Pyrene	2306			<input type="checkbox"/>	<input type="checkbox"/>
	0.2	0.001	Dalapon	2031			<input type="checkbox"/>	<input type="checkbox"/>
	0.006	0.0006	Di(2-ethylhexyl)phthalate	2039			<input type="checkbox"/>	<input type="checkbox"/>
	0.4	0.0006	Di(2-ethylhexyl)adipate	2035			<input type="checkbox"/>	<input type="checkbox"/>
	0.007	0.0002	Dinoseb	2041			<input type="checkbox"/>	<input type="checkbox"/>
	3x10 <sup>-8</sup>	5x10 <sup>-9</sup>	2,3,7,8-TCDD (Dioxin)	2063			<input type="checkbox"/>	<input type="checkbox"/>
	0.02	0.0004	Diquat	2032			<input type="checkbox"/>	<input type="checkbox"/>
	0.1	0.0009	Endothall	2033			<input type="checkbox"/>	<input type="checkbox"/>
	0.002	0.00001	Endrin	2005			<input type="checkbox"/>	<input type="checkbox"/>
	0.7	0.006	Glyphosate	2034			<input type="checkbox"/>	<input type="checkbox"/>
	0.001	0.0001	Hexachlorobenzene	2274			<input type="checkbox"/>	<input type="checkbox"/>
	0.05	0.0001	Hexachlorocyclopentadiene	2042			<input type="checkbox"/>	<input type="checkbox"/>
	0.2	0.002	Oxamyl	2036			<input type="checkbox"/>	<input type="checkbox"/>
	0.5	0.0001	Picloram	2040			<input type="checkbox"/>	<input type="checkbox"/>
	0.004	0.0007	Simazine	2037			<input type="checkbox"/>	<input type="checkbox"/>

\*Aroclor results may be submitted in lieu of PCB

**Laboratory Information**

Specimen Number: \_\_\_\_\_  
 Lab ID Number: \_\_\_\_\_ Name: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Authorized Signature: \_\_\_\_\_

**\*\*\*Aroclor (PCB Screening Test)\*\*\***

Analysis Method	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds Reporting Limit
	0.00008	Aroclor 1016	2388			<input type="checkbox"/>
	0.02	Aroclor 1221	2390			<input type="checkbox"/>
	0.0005	Aroclor 1232	2392			<input type="checkbox"/>
	0.0003	Aroclor 1242	2394			<input type="checkbox"/>
	0.0001	Aroclor 1248	2396			<input type="checkbox"/>
	0.0001	Aroclor 1254	2398			<input type="checkbox"/>
	0.0002	Aroclor 1260	2400			<input type="checkbox"/>

**Laboratory Information**

Specimen Number: \_\_\_\_\_  
 Lab ID Number: \_\_\_\_\_ Name: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Authorized Signature: \_\_\_\_\_

**\*\*\*Volatile Organic Chemical Analysis\*\*\***

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
	0.007	0.0005	1,1Dichloroethylene	2977			<input type="checkbox"/>	<input type="checkbox"/>
	0.2	0.0005	1,1,1-Trichloroethane	2981			<input type="checkbox"/>	<input type="checkbox"/>
	0.005	0.0005	1,1,2-Trichloroethane	2985			<input type="checkbox"/>	<input type="checkbox"/>
	0.005	0.0005	1,2-Dichloroethane	2980			<input type="checkbox"/>	<input type="checkbox"/>
	0.005	0.0005	1,2-Dichloropropane	2983			<input type="checkbox"/>	<input type="checkbox"/>
	0.005	0.0005	Benzene	2990			<input type="checkbox"/>	<input type="checkbox"/>
	0.005	0.0005	Carbon Tetrachloride	2982			<input type="checkbox"/>	<input type="checkbox"/>
	0.07	0.0005	cis-1,2 Dichloroethylene	2380			<input type="checkbox"/>	<input type="checkbox"/>
	0.7	0.0005	Ethylbenzene	2992			<input type="checkbox"/>	<input type="checkbox"/>
	0.1	0.0005	(mono) Chlorobenzene	2989			<input type="checkbox"/>	<input type="checkbox"/>
	0.6	0.0005	o-Dichlorobenzene	2968			<input type="checkbox"/>	<input type="checkbox"/>
	0.075	0.0005	para-Dichlorobenzene	2969			<input type="checkbox"/>	<input type="checkbox"/>
	0.1	0.0005	Styrene	2996			<input type="checkbox"/>	<input type="checkbox"/>
	0.005	0.0005	Tetrachloroethylene	2987			<input type="checkbox"/>	<input type="checkbox"/>
	1	0.0005	Toluene	2991			<input type="checkbox"/>	<input type="checkbox"/>
	0.1	0.0005	Trans-1,2-Dichloroethylene	2979			<input type="checkbox"/>	<input type="checkbox"/>
	0.005	0.0005	Trichloroethylene	2984			<input type="checkbox"/>	<input type="checkbox"/>
	0.002	0.0005	Vinyl Chloride	2976			<input type="checkbox"/>	<input type="checkbox"/>
	10	0.0015	Xylenes, Total	2955			<input type="checkbox"/>	<input type="checkbox"/>
	0.07	0.0005	1,2,4-Trichlorobenzene	2378			<input type="checkbox"/>	<input type="checkbox"/>
	0.005	0.0005	Dichloromethane	2964			<input type="checkbox"/>	<input type="checkbox"/>

**Laboratory Information**

Specimen Number: \_\_\_\_\_  
 Lab ID Number: \_\_\_\_\_ Name: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Authorized Signature: \_\_\_\_\_



**\*\*\*Radiochemical Analysis\*\*\***

Analysis Method	MCL	Reporting Limit	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL	Exceeds Reporting Limit
	15 pCi/L		Adjusted Gross Alpha	4000			<input type="checkbox"/>	
		3 pCi/L	Gross Alpha	4002				<input type="checkbox"/>
	30ppb	(reserved)	Combined Uranium	4006			<input type="checkbox"/>	<input type="checkbox"/>
			Uranium 234	4007				
			Uranium 235	4008				
			Uranium 238	4009				
	5 pCi/L	1 pCi/L	Combined Radium	4010			<input type="checkbox"/>	<input type="checkbox"/>
		1 pCi/L	Radium 226	4020				<input type="checkbox"/>
		1 pCi/L	Radium 228	4030				
*	4 mrem	3 pCi/L	Gross Beta	4100			<input type="checkbox"/>	<input type="checkbox"/>
*	20,000 pCi/L	1,000 pCi/L	Tritium	4102			<input type="checkbox"/>	<input type="checkbox"/>
*		10 pCi/L	Strontium-89	4172				<input type="checkbox"/>
*	8 pCi/L	2 pCi/L	Strontium-90	4174			<input type="checkbox"/>	<input type="checkbox"/>
*		1 pCi/L	Iodine-131	4264				<input type="checkbox"/>
*		10 pCi/L	Cesium-134	4270				<input type="checkbox"/>

\*Do not analyze for this contaminant unless notified by ADEQ

**Laboratory Information**

Specimen Number: \_\_\_\_\_  
 Lab ID Number: \_\_\_\_\_ Name: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Authorized Signature: \_\_\_\_\_

**\*\*\*Asbestos Analysis\*\*\***

Analysis Method	MCL	Contaminant Name	Cont. Code	Analysis Run Date	Result	Exceeds MCL
	7 MFL	Asbestos	1094			<input type="checkbox"/>

**Laboratory Information**

Specimen Number \_\_\_\_\_  
 Lab ID Number \_\_\_\_\_ Name \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Authorized Signature: \_\_\_\_\_

**\*\*\*MICROBIOLOGICAL ANALYSIS\*\*\***

Analysis Method	MCL	Contaminant Name	Cont. Code	Test Start Date/Time	Analysis Run Date/Time	Result
	Present 1 or More Coliform	Total Coliform	3000			

**ONLY REPORT FECAL RESULT IF TOTAL COLIFORM RESULT IS POSITIVE**

Analysis Method	MCL	Contaminant Name	Cont. Code	Test Start Date/Time	Analysis Run Date/Time	Result
	Present 1 or More Coliform	Total Coliform	3013			

**LABORATORY INFORMATION**

**>>>To be filled out by laboratory personnel<<<**

Specimen Number \_\_\_\_\_  
Lab ID Number \_\_\_\_\_ Name \_\_\_\_\_  
Comments: \_\_\_\_\_  
Authorized Signature: \_\_\_\_\_

DWAR 9: Revised 2004

**INSTRUCTIONS FOR USING THE ARIZONA DRINKING WATER  
SOURCE APPROVAL REPORTING FORM**

Revised 2003

**SYSTEM ID:** This is a unique 5 digit Public Water System Identification (PWSID) number assigned to each public water system by ADEQ.

**SYSTEM NAME:** Should be in the legal name which the water system will be known as when the system is built. Always notify the Department in writing of any name or ownership change.

**ADEQ PROJECT NUMBER:** This is the number assigned by ADEQ when the project is first submitted for an "Approval to Construct".

**NEW SYSTEM:** If this is a new system and a system in number has not yet been assigned by ADEQ, then mark "YES", and be sure that the project number is filled in.

**NEW POE:** If this source represents a new point of entry (POE) for your system, then mark "YES" on the form. This will allow ADEQ to assign a new point of entry number and the appropriate monitoring year for this point of entry.

**WELL ID NUMBER:** The Department of Water Resources' registration number goes here. This number always begins with a 55-. If the new source does not constitute a new point of entry, fill in the existing point of entry number that this source is joining.

**SURFACE WATER INTAKE ID NUMBER:** This number must be assigned by ADEQ. If the new source does not constitute a new point of entry, fill in the existing point of entry number that this source is joining.

**SAMPLE DATE:** The date the specimen was collected in mm/dd/yy format.

**SAMPLE TIME:** The time the specimen was collected in hh:mm format (24 hr clock time).

**OWNER/CONTACT PERSON NAME:** The first and last name of the owner or owner's representative, (contact person) who should be contacted with sample results.

**OWNER/CONTACT PHONE#:** The daytime phone number of the owner's representative, (contact person) who should be contacted with sample results.

**SAMPLE TYPE:** The compliance reason for specimen collection. Only the relevant sample types for each contaminant group are provided on the ADEQ forms.

**SPECIMEN NUMBER:** A unique 15 character (max) alphanumeric code that identifies a particular sample used to test one contaminant or one category of contaminants. If reporting on different reporting forms, a different (unique) number is required for each contaminant group and for each report.

**NOTE:** These definitions are general in nature. For specific questions regarding your laboratory submittal, please contact the Arizona Department of Environmental Quality (ADEQ) **Water Quality Compliance Section at 1-800-234-5677, ext. 4624, or 602-771-4624.**  
[www.adeq.state.az.us](http://www.adeq.state.az.us)

