

STATE OF ARIZONA
RECYCLED WATER INDIVIDUAL PERMIT FOR
ADVANCED RECLAIMED WATER TREATMENT FACILITY
INVENTORY NO. R- 512974
PLACE ID 185063, LTF 75556

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Article 7 and A.A.C. Title 18, Chapter 11, Article 3, and amendments thereto, and the conditions set forth in this permit, the City of Scottsdale Advanced Water Treatment Direct Potable Reuse facility is hereby authorized to treat Class A+ reclaimed water from the City of Scottsdale Water Campus (APP #102633), in accordance with the limitations, monitoring requirements and other conditions set forth in this permit and in the rules cited above.

This permit becomes effective on the date of the Water Reuse Value Stream Manager's signature and will expire five (5) years thereafter, unless suspended or revoked pursuant to A.A.C. R18-9-A706(D). Conditions established in this permit are designed to protect public health and safety.

1.1 PERMITTEE INFORMATION

Facility Name: City of Scottsdale Advanced Water Treatment - Direct Potable Reuse
Facility Address: 8787 E Hualapai Drive
Scottsdale, AZ 85255

Permittee: City of Scottsdale
Permittee Address: 8787 E Hualapai Drive
Scottsdale, AZ 85255

Facility Contact: David Walby, Water Reclamation Director
480-312-7931

Latitude/Longitude: 35° 01' 35" N/ 114° 11' 25" W
Legal Description: Township 19N, Range 18W, Section 22, NW¼, Gila and Salt River
Baseline and Meridian

1.2 ADVANCED RECLAIMED WATER TREATMENT FACILITY:

This Advanced Reclaimed Water Treatment Facility treats and purifies Class A+ reclaimed water to produce purified water for the purpose of taste testing demonstration at the Scottsdale Water Campus and to provide offsite to beverage manufacturer to produce water-based beverages.

1.3 AUTHORIZING SIGNATURE

David Dunaway, Manager
Water Reuse Value Stream
Arizona Department of Environmental Quality
Signed this ____ day of _____, 2019

2.0 SPECIFIC CONDITIONS

2.1 Advanced Water Treatment Direct Potable Reuse Facility Description

The City of Scottsdale (City) is authorized to operate the Advanced Water Treatment Direct Potable Reuse (AWT-DPR) Facility to produce purified water. The purified water will be provided for the purpose of taste testing demonstration at the Scottsdale Water Campus and to provide offsite to beverage manufacturer(s) (beverage companies) to produce water-based beverages. The water produced by this facility under the permit is no longer considered effluent or reclaimed water, is deemed to meet state drinking water standards as potable water and is therefore exempt from A.A.C. R18-11, Article 3. Any water produced by AWT-DPR will not be added into the City of Scottsdale Drinking Water System (PWS AZ0407098).

The source water to the AWT-DPR facility will be Class A+ reclaimed water from the City of Scottsdale - Water Campus #102633 (Water Campus) which is permitted through the ADEQ's Aquifer Protection Permit program and conform to new facility Best Available Demonstrated Control Technology (BADCT) requirements, and complies with the treatment and testing requirements of permit. The Water Campus existing AWT facility includes ozone disinfection/oxidation, ultrafiltration (UF), reverse osmosis (RO), Ultraviolet (UV) photolysis and stabilization with a capacity of 23.6 million gallons per day.

For the purpose of Direct Potable Reuse (DPR), City of Scottsdale will be adding treatment with a capacity of up to 15 gallons per minute (gpm) to the existing AWT facility while in operation. The side stream from the AWT facility will be further treated through the new DPR train which includes a back-up UV photolysis, Granular Activated Carbon (GAC) and Calcite Re-mineralizer. The purified water used for consumption at site will be conditioned by the Calcite Re-mineralizer. All materials, chemicals, and GAC media in contact with the product water are appropriate for drinking water, are routinely used in production of drinking water, and shall conform to ANSI/NSF 60 and ANSI/NSF 61 standards, as applicable. The water properly treated and produced by this facility is considered purified water, suitable for distribution for human consumption and is not considered reclaimed water.

The AWT-DPR treatment train will have two DPR taps, Tap 1 will provide water to beverage companies for a water-based beverage production and Tap 2 will be used for a drinking water fountain for taste demonstration.

DPR Tap 1 – The flow to DPR Tap 1 will be 15 gpm which will be treated using back-up UV Photolysis (if necessary) and GAC and will not include conditioning by the Calcite Re-mineralizer. The City will provide purified water to off-site beverage companies to produce water-based beverages. The City will record the volume of purified water provided to each beverage company for production of water-based beverages and log each beverage company's names and addresses into logbook at the facility, as required in Section 3.6. The City will collect water samples prior to providing purified water to a beverage company and analyze for the parameters listed in Table III.

DPR Tap 2 - For Tap 2 only, the purified water from GAC will flow to Calcite Re-mineralizer for water conditioning and then to chiller and dispenser. The flow from this DPR Tap 2 will be <5 gpm. The City will be conducting educational outreach and awareness tours or events at the facility and provide the purified water for consumption for tasting demonstration. The City estimates to have approximately 28 tours or events per year and serves an average of 22 people including two (2) staff members per tour/event. The number of people allowed to taste the purified water will not exceed 1,500 per year. The dispenser for purified water will be physically isolated through the use of a lock out device and will be only used during tours or compliance monitoring. The City will collect water samples and analyze prior to any tour/event and will confirm results with limits specified in Tables III.

The treatment train for DPR will be operated prior to any tour/event and quarterly at a minimum. The City will operate the DPR Taps as described in Section 3.4. The City will start the operation of the DPR

treatment train Taps at least one week prior to any tour/event. The Purified water samples will be collected and analyzed for parameters as required per Table III.

2.3 Engineering Design

The DPR train was designed as per the design report prepared, signed and sealed by Benjamin W. Lee, P.E., Water Works Engineers, dated April 29, 2019.

3.0 ALLOWABLE PERMIT LIMITS AND MONITORING REQUIREMENTS

3.1 On-line Analyzers

The AWT-DPR facility will have analyzers at critical control points for process control and monitoring. The analyzers/indicators on instruments in the system shall be monitored and indications shall be logged twice per 12-hour shift during operation at strategic points to document the following operational attributes to assure proper operation of the treatment components: Conductivity, UV transmittance, Turbidity, Pressure Differential, and pH. In addition, an initial validation must be conducted on the Purified water for Virus (as coliphage), Cryptosporidium, and Giardia.

3.2 Monitoring Requirements

The monitoring requirements for this facility are specified in this permit. The City is authorized to treat Class A+ reclaimed water from the City of Scottsdale Water Campus with the treatment technology described in Section 2.2 of this permit. The City will monitor the source water to AWT-DPR at intake to the ultrafiltration unit to demonstrate Class A+ reclaimed water quality per Table I.

Unless otherwise indicated, allowable permit limits are maximum values, which shall not be exceeded. Monitoring of the purified water shall be conducted as required in Tables III and IV. The facility will be monitoring flow going to DPR Tap 1 and Tap 2 when the purified water is provided for production of water-based beverage and taste testing demonstration. The facility will monitor for Total Coliform and *E.coli* daily for at least a week and once a week for indicator parameters prior to providing water for tasting to tours/events and to beverage companies per Table III. The facility will monitor quarterly for Inorganic Compounds (IOCs), Volatile Organic Compounds (VOCs), and Synthetic Organic Compounds (SOCs) and annually for Unregulated Compounds of Emerging Concerns per Table IV.

The permittee will track the volume of purified water provided to each beverage company. Beverage companies' names and addresses will be compiled and will be provided in a report to ADEQ annually by January 30th, as required in Section 3.4. The report shall also include a record of any maintenance performed or any equipment replaced at the AWT-DPR, tours of site conducted where purified water was offered for tasting, and outreach events organized during the year where a water based beverage producing using purified water is held.

3.3 Monitoring Tables:

TABLE I
RECLAIMED WATER MONITORING TABLE – Class A+

Sampling Point Number	Sampling Point Identification		Latitude	Longitude
1	Influent to Ultra Filtration Unit		33° 39' 33.5 N	111° 53' 37.2 W
Parameter	DL ¹	Units	Sampling Frequency	Reporting Frequency
Fecal Coliform: Single-sample maximum	23.0	MPN ²	Daily ³	Quarterly
Fecal Coliform: Four (4) of last seven (7) samples	Non-detect ⁴	MPN	Daily Evaluation ³	Quarterly
Total Nitrogen ⁵	10.0	mg/l ⁶	Quarterly	Quarterly
Turbidity ⁷ : Single reading	5.0	NTU ⁸	Daily ⁹	Quarterly
Turbidity: 24-hour average	2.0	NTU	Daily Calculation	Quarterly

¹DL = discharge limit

²MPN = Most Probable Number per 100 ml. For MPN, a value of <2.2 shall be considered to be non-detect.

³For fecal coliform, “daily” sampling means every day while the AWT-DPR system is operating and a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four (4) samples in each seven-day period are obtained and analyzed when the AWT-DPR system is running.

⁴Requires entering “Compliance” or “Non-compliance” on the SMRF for each day of the reporting period. Evaluate the daily fecal coliform result along with the six (6) previous sample results. If four (4) or more of those results are non-detect, report “Compliance” for that day’s entry on the SMRF. If four (4) or more of those results have detections of fecal coliform, report “Non-compliance” for that day’s entry.

⁵Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

⁶mg/l = milligrams per liter

⁷Turbidimeter shall have a signal averaging time not exceeding 120 seconds. All exceedances must be explained and submitted to the Department with the corresponding quarterly SMRF; occasional spikes due to back-flushing or instrument malfunction shall not be considered an exceedance.

⁸NTU = Nephelometric Turbidity Units

⁹For the single turbidity reading, daily means the maximum reading during the 24-hour period.

TABLE II
PURIFIED WATER MONITORING - CREDITS FOR MICROBIAL REMOVAL¹⁰
TREATMENT PERFORMANCE CRITERIA

Process	Parameters	Limit	Units	Sampling Frequency	Reporting Frequency	Log Credit		
						Virus	Crypto	Giardia
Minimum Required Credits ¹¹						10	8	8
Filtered and Disinfected Secondary effluent ¹²	See Table I Sample Point 1					5	0	0
Ozone	Dose	≥ 4	mg/L	Daily	Quarterly	5	3	3
Ultra-filtration ¹³	Turbidity: 95% of Combined Filter Effluent Samples	≤ 0.3	NTU	Daily	Quarterly	0	4	4
	Turbidity: Maximum	≤ 1.0	NTU	Daily	Quarterly			
Reverse Osmosis	Conductivity	≤ 200	μS	Daily	Quarterly	2	2	2
UV	UV Dose	≥ 186	mj/cm^2	Daily	Quarterly	4	4	4
Total Combined Credits						16	13	13

¹⁰The treatment performance criteria shall be logged into a log book daily during the operation of DPR taps and credits for microbial removal shall be confirmed per this table prior to each tour/event and providing each batch of purified water provided to beverage company.

¹¹The required removal or inactivation credits can be met by combining multiple treatment techniques. The facility can add up the logs achieved from each barrier to get the total treatment for that micro-organism.

¹²Filtered and disinfected secondary effluent meeting Class A+ requirements as described in Table I, is granted removal credits as shown.

¹³Surface Water Treatment Rule turbidity compliance is granted removal credits as shown.

**TABLE III
PURIFIED WATER MONITORING¹⁴**

Sampling Point Number	Sampling Point Identification		Latitude	Longitude
2	DPR Tap 1 - Tap immediately following GAC		33° 39' 33.5 N	111° 53' 37.2 W
3	DPR Tap 2 - Tap immediately following drinking fountain		33° 39' 33.5 N	111° 53' 37.2 W
Parameter	Limit	Units	Sampling Frequency	Reporting Deadline
Flow to Beverage Company ¹⁵	Monitor	gallons	At the time of filling the totes	Quarterly
Flow for Tasting ¹⁶	Monitor	gallons	At the time of tour	Quarterly
Total Coliform	Absent	P/A ¹⁷	Daily for a week prior to tour/event ¹⁸	Quarterly
<i>E. coli</i>	Absent	P/A	Daily for a week prior to tour/event ¹⁸	Quarterly
Indicator Parameters				
Total Organic Carbon	Monitor	mg/l	Once prior to tour/event and for each batch of purified water ¹⁹	Quarterly
Total Dissolved Solids	Monitor	mg/l	"	Quarterly
Alkalinity	Monitor	mg/l	"	Quarterly
Chloride	Monitor	mg/l	"	Quarterly
UV 254	Monitor	abs/cm ²⁰	"	Quarterly
Sulfate	Monitor	mg/l	"	Quarterly
Calcium	Monitor	mg/l	"	Quarterly
pH	Monitor	S.U.	"	Quarterly
Sodium	Monitor	mg/l	"	Quarterly
Ortho-P	Monitor	mg/l	"	Quarterly
Free Chlorine	4.0	mg/l	"	Quarterly

¹⁴The monitoring under this table shall be performed prior to each tour/event.

¹⁵Flow to beverage company will be measured at sampling point #2.

¹⁶Flow for tasting will be measured at sampling point #3.

¹⁷P/A = Presence or absence of total coliforms and *E. coli* in a 100-milliliter sample

¹⁸The monitoring of total coliform and *E. coli* shall commence at least a week prior to a tour/event or providing batch of purified water to beverage company. The facility shall monitor each batch of purified water provided to beverage company.

¹⁹The monitoring of indicator parameters shall commence at least a week prior to a tour/event or providing batch of purified water to beverage company. The facility shall monitor each batch of purified water provided to beverage company.

²⁰abs/cm - absorbance per path length

**TABLE IV
ROUTINE MONITORING FOR PURIFIED WATER**

Sampling Point Number	Sampling Point Identification	Latitude	Longitude	
2	DPR Tap 1 - Tap immediately following GAC	33° 39' 33.5 N	111° 53' 37.2 W	
3	DPR Tap 2 - Tap immediately following drinking fountain	33° 39' 33.5 N	111° 53' 37.2 W	
Parameter	Limit	Units	Sampling Frequency	Reporting Deadline
Inorganic Compounds				
Antimony	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.01	mg/l	Quarterly	Quarterly
Barium	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.005	mg/l	Quarterly	Quarterly
Chromium	0.1	mg/l	Quarterly	Quarterly
Copper ²¹	1.3	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.2	mg/l	Quarterly	Quarterly
Fluoride	4.0	mg/l	Quarterly	Quarterly
Lead ²¹	0.015	mg/l	Quarterly	Quarterly
Mercury	0.002	mg/l	Quarterly	Quarterly
Nitrate (as N)	10	mg/l	Quarterly	Quarterly
Nitrite	1.0	mg/l	Quarterly	Quarterly
Selenium	0.05	mg/l	Quarterly	Quarterly
Thallium	0.002	mg/l	Quarterly	Quarterly
Radionuclides				
Gross Alpha	15.0	pCi/l ²²	Quarterly	Quarterly
Beta/Photon Emitters	4.0	mrem/yr ²³	Quarterly	Quarterly
Radium 226 & Radium 228	5.0	pCi/l	Quarterly	Quarterly
Uranium	30.0	µg/l	Quarterly	Quarterly
Pathogens				
Virus ²⁴	Absent	MPN/L	Quarterly	Quarterly
Cryptosporidium	Absent	Oocysts/10 ³ L	Quarterly	Quarterly
Giardia	Absent	Cysts/10 ³ L	Quarterly	Quarterly

²¹No primary federal numeric drinking water MCL exists for this constituent. The permit limit is derived from the EPA MCLG or Arizona's Aquifer Water Quality Standard, where available.

²²pCi/l – picocuries per Liter

²³mrem/yr – millirems per year

²⁴Virus will be analyzed as coliphage.

TABLE IV
ROUTINE MONITORING FOR PURIFIED WATER (Continued)

Parameter	Limit	Units	Sampling Frequency	Reporting Deadline
Volatile Organic Compounds				
1,1 Dichloroethylene	0.007	mg/l	Quarterly	Quarterly
1,1,1-Trichloroethane	0.2	mg/l	Quarterly	Quarterly
1,1,2-Trichloroethane	0.005	mg/l	Quarterly	Quarterly
1,2-Dichloroethane	0.005	mg/l	Quarterly	Quarterly
1,2-Dichloropropane	0.005	mg/l	Quarterly	Quarterly
Benzene	0.005	mg/l	Quarterly	Quarterly
Carbon Tetrachloride	0.005	mg/l	Quarterly	Quarterly
Cis-1, 2 Dichloroethylene	0.07	mg/l	Quarterly	Quarterly
Ethylbenzene	0.7	mg/l	Quarterly	Quarterly
(mono) Chlorobenzene	0.1	mg/l	Quarterly	Quarterly
o-Dichlorobenzene	0.6	mg/l	Quarterly	Quarterly
para-Dichlorobenzene	0.075	mg/l	Quarterly	Quarterly
Styrene	0.1	mg/l	Quarterly	Quarterly
Tetrachloroethylene	0.005	mg/l	Quarterly	Quarterly
Toluene	1.0	mg/l	Quarterly	Quarterly
Trans-1, 2-Dichloroethylene	0.1	mg/l	Quarterly	Quarterly
Trichloroethylene	0.005	mg/l	Quarterly	Quarterly
Vinyl Chloride	0.002	mg/l	Quarterly	Quarterly
Xylenes, Total	10.0	mg/l	Quarterly	Quarterly
1,2,4-Trichlorobenzene	0.07	mg/l	Quarterly	Quarterly
Dichloromethane	0.005	mg/l	Quarterly	Quarterly
Total Trihalomethanes	0.08	mg/l	Quarterly	Quarterly

**TABLE IV
ROUTINE MONITORING FOR PURIFIED WATER (Continued)**

Parameter	Limit	Units	Sampling Frequency	Reporting Deadline
Synthetic Organic Compounds				
2, 4-D	0.07	mg/l	Quarterly	Quarterly
2, 4,5-TP (Silvex)	0.05	mg/l	Quarterly	Quarterly
Alachlor	0.002	mg/l	Quarterly	Quarterly
Toxaphene	0.003	mg/l	Quarterly	Quarterly
Polychlorinated Biphenyls (PCBs) ²⁵	0.0001	mg/l	Quarterly	Quarterly
Atrazine	0.003	mg/l	Quarterly	Quarterly
Carbofuran	0.04	mg/l	Quarterly	Quarterly
Pentachlorophenol	0.001	mg/l	Quarterly	Quarterly
Chlordane	0.002	mg/l	Quarterly	Quarterly
Dibromochloropropane (DBCP)	0.0002	mg/l	Quarterly	Quarterly
Ethylene Dibromide (EDB)	0.00005	mg/l	Quarterly	Quarterly
Heptachlor	0.0004	mg/l	Quarterly	Quarterly
Heptachlor Epoxide	0.0002	mg/l	Quarterly	Quarterly
Lindane	0.0002	mg/l	Quarterly	Quarterly
Methoxychlor	0.04	mg/l	Quarterly	Quarterly
Benzo(a)Pyrene	0.0002	mg/l	Quarterly	Quarterly
Dalapon	0.2	mg/l	Quarterly	Quarterly
Di(2-ethylhexyl)phthalate	0.006	mg/l	Quarterly	Quarterly
Di(2-ethylhexyl)adipate	0.4	mg/l	Quarterly	Quarterly
Dinoseb	0.007	mg/l	Quarterly	Quarterly
2,3,7,8-TCDD (Dioxin)	3x10 ⁻⁸	mg/l	Quarterly	Quarterly
Diquat	0.02	mg/l	Quarterly	Quarterly
Endothall	0.1	mg/l	Quarterly	Quarterly
Endrin	0.002	mg/l	Quarterly	Quarterly
Glyphosate	0.7	mg/l	Quarterly	Quarterly
Hexachlorobenzene	0.001	mg/l	Quarterly	Quarterly
Hexachlorocyclopentadiene	0.05	mg/l	Quarterly	Quarterly
Oxamyl	0.2	mg/l	Quarterly	Quarterly
Picloram	0.5	mg/l	Quarterly	Quarterly
Simazine	0.004	mg/l	Quarterly	Quarterly

²⁵If PCBs (as one of seven Aroclors) are detected (as designated in this paragraph) in any sample using approved methods, the purified water shall be reanalyzed using Method 508A to quantitate PCBs as decachlorobiphenyl. Compliance with the PCB Limit as Decachlorobiphenyl shall be determined based upon the quantitative results of analyses using Method 508A.

TABLE IV
ROUTINE MONITORING FOR PURIFIED WATER (Continued)

Parameter	Limit	Units	Sampling Frequency	Reporting Deadline
Aroclor				
1016	0.00008	mg/l	Quarterly	Quarterly
1221	0.02	mg/l	Quarterly	Quarterly
1232	0.0005	mg/l	Quarterly	Quarterly
1242	0.0003	mg/l	Quarterly	Quarterly
1248	0.0001	mg/l	Quarterly	Quarterly
1254	0.0001	mg/l	Quarterly	Quarterly
1260	0.0002	mg/l	Quarterly	Quarterly

**TABLE IV
ROUTINE MONITORING FOR PURIFIED WATER (Continued)**

Parameter	Limit	Units	Sampling Frequency	Reporting Deadline
Unregulated Compounds of Emerging Concerns²⁶				
N-Nitrosodimethylamine (NDMA)	Monitor	ng/l	Annually	Annually
Perfluorooctanoic acid (PFOA)	Monitor	ng/l	Annually	Annually
Perfluorooctane Sulfonate (PFOS)	Monitor	ng/l	Annually	Annually
1,4 Dioxane,	Monitor	µg/l	Annually	Annually
Ethinyl estradiol,	Monitor	ng/l	Annually	Annually
17-B-estradiol,	Monitor	ng/l	Annually	Annually
Cotinine,	Monitor	ng/l	Annually	Annually
Primidone,	Monitor	ng/l	Annually	Annually
Meprobamate,	Monitor	ng/l	Annually	Annually
Carbamazepine	Monitor	ng/l	Annually	Annually
Estrone	Monitor	ng/l	Annually	Annually
Sucralose	Monitor	ng/l	Annually	Annually
tris(2-chloroethyl)phosphate (TCEP)	Monitor	ng/l	Annually	Annually
DEET	Monitor	ng/l	Annually	Annually
Triclosan	Monitor	ng/l	Annually	Annually

²⁶CEC will be analyzed as process control and not for compliance since they are not regulated, and the laboratory cannot obtain a license to analyze.

3.4 Operation and Maintenance:

The City will operate the DPR Taps producing purified water at least once per quarter or more based on frequency of event/tour. Prior to any tour /event, purified water samples will be collected and analyzed for parameter as required per Tables III. During operation of the DPR, routine O&M will occur. The City will track the volume of water provided to each beverage company involved in the project and log each company's names and addresses into logbook at the facility, as required in Section 3.6. All purified water produced during this routine O&M operation will be discharged to drain. Adherence to City Lock-out/Tag-Out Safety Procedure (LOTO) for DPR Tap 1 and Tap 2 will be enforced when not providing purified water for event/tour. The City will evaluate the DPR operations and make adjustments as necessary. Equipment will be maintained in accordance with equipment manufactures O&M manual.

Notification from Scottsdale Water Quality Department of any exceedances shall be followed as per 4.1 Contingency Actions. In addition, Scottsdale Water Quality Department will provide 24 hr. notification to Scottsdale Water Reclamation Operations confirming that no allowable permit limits are exceeded as per 3.2 Monitoring Requirements. If prior to providing purified water to tours/event of any indicator parameters in Table III have been exceeded, then purified water for the purpose of taste testing demonstration will be sent to waste.

3.5 Monitoring Requirements [A.A.C. R18-9-B703(B)(3) and A.A.C. R18-9- B703(B)(5)]

All monitoring required in this permit shall continue for the duration of the permit. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and chain of custody procedures shall be followed, in accordance with currently accepted standards of professional practice. Copies of laboratory analyses and chain of custody forms shall be maintained at the permitted facility. Upon request these documents shall be made immediately available for review by ADEQ personnel.

3.6 Logbook Requirement

The facility shall maintain a log book (paper copies, forms, or electronic data) of the inspections and measurements required by this permit at the location where day-to-day decisions are made regarding the operation of the facility. The facility shall log treatment performance criteria into a log book daily during the operation of DPR taps and confirm the credits for microbial removal per this permit prior to each tour/event and providing each batch of purified water provided to beverage company as described in Table II. The facility shall record the information about any tours/event conducted for taste demonstration. The facility shall log the name and address of each beverage company receiving purified water for a water-based beverage and the amount of purified water provided into a log book.

3.7 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state approved methods. If no state approved method exists, then any appropriate EPA approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona state-certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Avenue
Phoenix, AZ 85007
Phone: (602) 364-0720

The laboratory analysis for Unregulated Compounds of Emerging Concern parameters listed under this permit will be conducted as process control monitoring at the City of Scottsdale laboratory. Currently no laboratory license is available for these parameters since they are not regulated. When they become regulated, they must be analyzed by a licensed laboratory. If City of Scottsdale laboratory is not available to perform analysis for Unregulated Compounds of Emerging Concern parameters, the facility shall use another laboratory acceptable to the Department as back-up.

3.8 Monitoring and Reporting Schedule [A.A.C. R18-9- B703(B)(4)]

Monitoring under Table I, III and IV shall be conducted and submitted in accordance with the deadline established in tables. All monitoring results shall be recorded on the SMRFs which shall be provided to the permittee by the ADEQ Water Reuse Value Stream, Inspections and Compliance Unit following issuance of this permit. The SMRF shall be submitted to the Department on a quarterly basis regardless of operational status of the facility. These forms shall be sent through the myDEQ portal accessible on the ADEQ website at:

<http://www.azdeq.gov/welcome-mydeq>

The following table lists the quarterly report due dates:

Monitoring conducted during quarter:	Quarterly Report due by:
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

The following table lists the semi-annual and annual report due dates:

Monitoring conducted:	Report due by:
Annual: January-December	January 30

3.9 Records Retention [A.A.C. R18-9-706(B)(5)]

Records of all monitoring activities and manually-logged results for actual operating hours shall be retained for five (5) years.

3.9 Operator’s Training [A.A.C. R18-9- E701(C)(9)]

The permittee shall maintain Grade 4 level Water Treatment and Wastewater Treatment System Operator to operate the AWT-DPR facility. Any operator who fills in for the operator will carry the same level of certification. Other operators shall hold at a minimum Grade 2 Water Treatment or Wastewater Treatment Operation Certification and operate the plant under supervision of Grade 4 operator. The permittee shall provide annual training to operators required for operation of AWT-DPR facility. The permittee shall provide annual training to operators about drinking water regulations.

4.0 CONTINGENCY ACTIONS

4.1 Exceedance of Tables I, III and IV: Purified Water Monitoring Limits

1. Upon receiving analytical results which indicate an exceedance of the limits in Tables I, III and IV, the permittee shall:
 - a. Immediately notify any participating entities that received the purified water exceeding the limits and direct them to properly dispose of the remaining purified water and/or product made using purified water.

- b. Immediately dispose of any remaining quantity of the purified water exceeding the limits still in the possession of the permittee.
2. Within 30 days, of receiving analytical results which indicate an exceedance of the limits in Tables I, III and IV, the permittee shall submit a written report to the ADEQ Water Reuse Value Stream. The report shall document all of the following:
 - a. Identification of the Tables I, III and IV parameter(s) exceeded, the laboratory analytical sheets, and a description of the cause including any malfunction or failure of equipment or processes;
 - b. Documentation of the notification required by 4.1.a, if applicable, and any corrective action taken or planned to mitigate the effects of the exceedance;
 - c. Proposed changes to the monitoring, operating procedures or other actions to prevent recurrence of an exceedance.

4.2 Reporting Location

Notifications of unauthorized releases and violations of discharge limits and permit conditions shall be submitted to:

Arizona Department of Environmental Quality
Water Reuse Value Stream
Mail Code: 5415B-3
1110 W. Washington Street
Phoenix, AZ 85007
Phone: (602) 771-4999

5.0 GENERAL PROVISIONS

5.1 Information Changes [A.A.C. R18-9-A705(B) and (D)]

If a change in the following information occurs, the permittee shall update the ADEQ Water Reuse Value Stream 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. 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.

For changes not described above, the permittee must submit a new Recycled Water Individual Permit application, as applicable.

5.2 Annual Registration Fee [A.A.C. R18-14-104(C)]

The annual registration fee for this permit is payable to ADEQ each year. The annual registration fee for Individual Recycled Water Permit is \$500. The permittee will receive notice from ADEQ at the time payment is due.

5.3 Duty to Comply [A.R.S. §§ 49-221 through 49-263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of A.R.S. § Title 49, Chapter 2, Articles 1, 2 and 3, A.A.C. Title 18, Chapter 7 and A.A.C. Title 18, Chapter 11, Article 3. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to A.R.S. § Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

5.4 Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

5.5 Other Laws and Rules

The issuance of this permit does not waive any federal, state, county, or local government rules, regulations, or permits with which this facility may have to comply.

5.6 Permit Continuance [A.A.C. R18-9-B703(A)]

This permit is valid for five (5) years. The permit must be updated as prescribed by A.A.C. R18-9-A705. The terms and conditions of an expired permit are automatically continued pending issuance of a new permit if:

1. The permitted activity is of a continuing nature;
2. Permittee has submitted a timely (60 days before expiration date of permit) and sufficient application for a new permit; and
3. ADEQ is unable, through no fault of the permittee, to issue a new permit before the expiration date of the previous permit.

6.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. Individual Reclaimed Water Permit Application submitted – February 8, 2019
2. Public Notice - XXX