

**STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-105922
PLACE ID 128761, LTF 76958
SIGNIFICANT AMENDMENT**

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A. A. C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, the Arizona Department of Environmental Quality (ADEQ) hereby authorizes Palo Verde Utilities Company Campus 1 Area Recharge Facility, consisting of several facilities located in the City of Maricopa, Arizona, in Pinal County, over groundwater of the Pinal Active Management Area in Township 04S, Range 03E, Section 13, 14, 22, 26, and 27 of the Gila and Salt River Base Line and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods) unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant and as determined at the applicable POC occurs as a result of the discharge from the facility.

1.1 PERMITTEE INFORMATION

Facility Name: Palo Verde Utilities Company Campus 1 Area Recharge Facility
Facility Address: Several facilities located in the City of Maricopa

County: Pinal

Permittee: Global Water – Palo Verde Utilities Company, LLC
Permittee Address: 21410 N. 19th Ave. Suite 220
Phoenix, Arizona 85027

Annual Registration Fee Flow Rate: 8,520,000 gallons per day (gpd)

Facility Contact: Manager
Emergency Phone No.: (480) 898-4007

Latitude/Longitude: 33° 05' 12" N/ 112° 00' 42" W
Legal Description: Township 04 S, Range 03 E, Section 13, 14, 22, 26, and 27 of the Gila and Salt River Baseline and Meridian in Pinal County, Arizona.

1.2 AUTHORIZING SIGNATURE

Trevor Baggio, Director, Water Quality Division
Arizona Department of Environmental Quality

Signed this _____ day of _____, 2020

THIS AMENDED PERMIT SUPERCEDES ALL PREVIOUS PERMITS

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]

2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

Palo Verde Utilities Company (PVUC) Campus 1 Area Recharge Facility is authorized to discharge tertiary treated denitrified effluent from PVUC Campus 1 Wastewater Reclamation Facility (WRF) to the subsurface at a maximum average monthly flow of 9,543 acre-feet per year, equivalent to an average flow of 8.52 million gallons per day (mgd). PVUC Campus 1 WRF is regulated under Aquifer Protection Permit (APP) No. P-105228, Type 3 Agent Reclaimed Water General Permit No. R106345, and Arizona Pollution Discharge Elimination System (AZPDES) permit No. AZ0025071. The tertiary treated effluent shall be discharged to a recharge basin or Aquifer Storage and Recovery (ASR) wells within a 24 square mile area called the "Campus 1 Area," consisting of five (5) recharge sites located within three (3) Discharge Impact Areas (DIA).

The Campus 1 Area extends throughout the City of Maricopa, and includes the following five (5) recharge sites: Campus 1 WRF (located within the setback area of APP No. P-105228), Groves Well Site (GWS), Rancho El Dorado Water Distribution Center (WDC), Villages Recharge Site (VRS), and Groves Recycled Water Management Facility (GRWMF). The Campus 1 Area extends approximately 2 miles to the west, south and east of the five recharge sites; it is bounded to the southwest by the Ak-Chin Indian Community and to the north by the Gila River Indian Community.

Effluent from PVUC Campus 1 WRF flows through a 24 inch diameter pipeline to a network of up to 16 ASR wells located at the five (5) recharge sites and the recharge basin located at the GRWMF. Water quality is monitored at PVUC Campus 1 WRF under APP No. P-105228. Operation of the effluent pipeline is exempt from APP as per A.R.S. §49-250(B) (22). There are five (5) inflow points where the pipeline enters the various ASR well and recharge basin sites. Discharge quality samples may be obtained at the inflow points if necessary, or as part of a contingency action. Volume of water discharged will be measured at the inflow points. Proper operation and maintenance of the pipeline should prevent the water quality from changing during transmission to the ASR wells or recharge basin.

Four (4) of the ASR well sites are designated as contingency" recharge sites and one (1) recharge basin with contingency ASR wells is designated as the "preferred" recharge site. The four (4) contingency ASR well sites are Campus 1 WRF, Rancho El Dorado WDC, Villages Recharge Site, and Groves Well Site. The GRWMF designated as the "preferred" recharge site includes a recharge basin with four (4) percolation holes and eight (8) contingency percolation holes, and three (3) contingency ASR wells.

The GRWMF recharge basin area will encompass approximately 1.44 acres with a designed depth of nine (9) feet. The recharge basin walls will be lined to ensure berm integrity and prevent reclaimed water from migrating into the adjacent Wash. The recharge basin will have the capacity to recharge 2.35 mgd of reclaimed water. The recharge basin will have four (4) percolation holes and eight (8) contingency percolation holes. The four (4) percolation holes are paired, each pair with its own shutoff valve and flowmeter in precast manholes. The expected capacity of each of the percolation holes is 200 gpm. The percolation holes will be drilled 50 feet deep, lined with geofabric and filled with gravel. A four (4) foot diameter precast liner will be installed in the top ten (10) feet the holes, with eight (8) inch diameter vertical conductor piping that is perforated from the bottom four (4) feet, terminating one (1) foot from the bottom of the hole.

Permit Amendment

The purpose of this amendment:

- Addition of a recharge basin with percolation holes to recharge the reclaimed water at Groves Recycled Water Management Facility;
- Reduction of ASR wells from five (5) to three (3) as a recharge option at Groves Recycled Water Management Facility;
- Changed the name of the Maricopa Groves Well Site to the Groves Well Site
- Changed the name of the Village Lift Station Recharge Site to Villages Recharge Site; and
- Changed the name of the Maricopa Grove Recharge Site to Groves Recycled Water Management Facility.

Depth to groundwater at the WRF site is approximately 130 feet, and the direction of groundwater flow is from northeast to southwest. The depth to groundwater at the WDC site is approximately 550 feet, and the groundwater flow direction is to the south. The principal direction of groundwater flow beneath the Groves Recycled Water Management Facility is towards the northwest and depth to groundwater is approximately 70 feet.

	Latitude	Longitude	Preference
Groves Recycled Water Management Facility			Preferred Site
Recharge Basin	33° 02' 39.5" N	112° 01' 51.4" W	
Proposed ASR Well #1	33° 02' 39.06" N	112° 01' 46.36" W	
Proposed ASR Well #2	33° 02' 38.33" N	112° 01' 45.05" W	
Proposed ASR Well #3	33° 02' 37.12" N	112° 01' 42.89" W	
Campus 1 WRF Recharge Site			Contingency Site
Proposed ASR Well #1	33° 05' 15.1" N	112° 00' 41.09" W	
Proposed ASR Well #2	33° 05' 15.37" N	112° 00' 39.33" W	
Proposed ASR Well #3	33° 05' 8.68" N	112° 00' 44.6" W	
Proposed ASR Well #4	33° 05' 9.66" N	112° 00' 37.2" W	
Proposed ASR Well #5	33° 05' 9.5" N	112° 00' 36.42" W	
Proposed ASR Well #6	33° 05' 11.5" N	112° 00' 45.16" W	
Rancho El Dorado WDC Recharge Site			Preferred Site
Proposed ASR Well #1	33° 04' 23.9" N	112° 01' 44.24" W	
Proposed ASR Well #2	33° 04' 23.7" N	112° 01' 43.44" W	
Proposed ASR Well #3	33° 04' 22.3" N	112° 01' 44.7" W	
Proposed ASR Well #4	33° 04' 23.3" N	112° 01' 39.76" W	
Proposed ASR Well #5	33° 04' 22.4" N	112° 01' 39.7" W	
Villages Recharge Site			Contingency Site
Proposed ASR Well	33° 04' 20.2" N	112° 01' 53.78" W	
Groves Well Site Recharge Site			Contingency Site
Proposed ASR Well	33° 02' 50.7" N	112° 01' 54.96" W	

Annual Registration Fee [A.R.S. § 49-242 and A.A.C. R18-14-104]

The annual registration fee for this permit is payable to ADEQ each year. The permitted flow for fee calculation is 8.52 million gallons per day (gpd). If the facility is not constructed or is incapable of discharge, the permittee may be eligible for reduced fees pursuant to A.A.C. R18-14-104(A), Table 2. Send all correspondence requesting reduced fees to the Groundwater Protection Value Stream. Please reference the permit number, LTF number, and the reason for requesting reduced fees under this rule.

Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The estimated dollar amount for the Groves Recycled Water Management Facility closure is \$84,780.00. The financial capability was demonstrated through a Certificate of Deposit A.A.C. R18-9-A203(C)(3). The closure cost for all other recharge sites will be provided prior to commencing the operation of those facilities per the Compliance Schedule Item.

2.2 Best Available Demonstrated Control Technology (BADCT)

[A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

Not applicable as per A.A.C.R18-9-A201(C).

2.2.1 Engineering Design

The recharge basin was designed as per the design report prepared and stamped, dated, and signed (sealed) by Steve Wedwick, P.E. (Professional Engineer), NCS Engineers, dated December 19, 2019 and subsequent sealed submittals that served as additions to the design report.

2.2.2 Site-specific Characteristics

Not applicable.

2.2.3 Pre-operational Requirements

Prior to discharging to the Campus 1 WRF recharge site, the Rancho El Dorado Water Distribution Center (WDC), the Villages Recharge Site, and/or the Grove Well Site, the permittee shall update the closure cost of these facilities, per the Section 3.0, Compliance Schedule items 3.1, 3.2, 3.3 and 3.4. In addition the permittee is required to submit a signed, dated and sealed Engineer's Certificate of Completion (ECOC) for the GRWMF's new recharge basin and percolation holes prior to discharge and within 90 days of completion of construction per Section 3.0, Compliance Schedule item 3.28 of the permit.

2.2.4 Operational Requirements

1. The permittee shall maintain a copy of the up-to-date operations and maintenance manual at the treatment facility site at all times; the manual shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.2, Table III-Facility Inspection (Operational Monitoring).
3. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented in the facility log book as per Section 2.7.2 and reported to ADEQ in the event of a violation or exceedance as per Section 2.7.3.

2.2.5 Reclaimed Water Classification

[A.A.C. R18-9-703(C)(2)(a), A.A.C. R18-11-303 through 307]

Not applicable.

2.2.6 Certified Areawide Water Quality Management Plan Conformance

[A.A.C. R18-9-A201(B)(6)(a)]

Facility operations must conform to the approved Certified Areawide Water Quality Management Plan according to the 208 consistency determination in place at the time of permit issuance.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205 (B)]

1. The permittee is authorized to operate the treatment facility with a maximum monthly average daily flow of 8.52 mgd.

2. Specific discharge limitations are listed in Section 4.2, Tables IA-1 through IA-4 and IB.

2.4 Point of Compliance (POC) [A.R.S. § 49-244]

The non-hazardous Points of Compliance (POC) have been established at the following locations:

POC Name	Descriptive Location	Latitude	Longitude
POC #1 (ADWR No.907127)	North edge of the PVUC Campus 1 WRF recharge site.	33° 05' 12.92" N	112° 00' 45.51" W
POC #2 (ADWR No. 55-903998)	750 feet Southwest of the Rancho El Dorado WDC recharge site.	33° 04' 19.94" N	112° 01' 53.12" W
POC #3 (ADWR No. 55-205362)	Southwestern edge of the Groves Recycled Water Management Facility.	33° 02' 39.69" N	112° 01' 49.44" W
POC #4 (Proposed)	Northwest corner of the Villages recharge site.	33° 04' 19.70" N	112° 01' 53.87" W
POC #5 (Proposed)	South edge of the Groves Well Site.	33° 02' 51.56" N	112° 01' 54.91" W

Groundwater monitoring is required at the PVUC Campus 1 WRF recharge site (POC #1), Rancho El Dorado WDC recharge site (POC #2), and Groves Recycled Water Management Facility (POC #3) upon commencement of discharge to these facilities.

Ambient groundwater monitoring is required at POCs #4 and #5 prior to discharge at each contingency recharge site, as per Section 3.0, Compliance Schedule, and Section 4.2, Table IIA. Routine groundwater monitoring is required at POCs #4 and 5 upon commencement of discharge at each of the contingency recharge sites, as per Section 3.0, Compliance Schedule, and Section 4.2, Table IIB.

Monitoring of the depth to the top of the recharge mound at each recharge site is required as per Section 4.2, Table IIC.

PVUC Campus 1 WRF Site

Upon commencement of discharge to the WRF Site groundwater monitoring is required at POC #1. This well is downgradient of the WRF and the adjacent recharge site. WRF-MW-1 is a 4-inch diameter PVC cased well completed to a depth of 200 feet and screened from 67 feet to 186 feet below land surface (bls).

Rancho El Dorado WDC Site

Upon commencement of discharge to the WDC Site groundwater monitoring is required at POC #2. WDC-MW-1 is a 4-inch diameter PVC cased well completed to a depth of 610 feet and screened from 530 feet to 600 feet bls. Although it is currently upgradient of the recharge wells, it is within the DIA created by recharge from the facility, and it will be downgradient during recharge due to groundwater mounding.

Groves Recycled Water Management Facility Site

Upon commencement of discharge to the GRWMF groundwater monitoring is required at POC #3, which is located along the south western edge of the facility. POC #3 is completed to a depth of 226 feet and screened from 191 feet to 221 feet bls. This well is located downgradient of the facility and positioned within the DIA created by recharge from the facility.

The Director may amend this permit to require installation of wells and initiation of groundwater monitoring at the POC or to designate additional points of compliance, if information on groundwater gradients or groundwater usage indicates the need.

2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]

Unless otherwise specified in this permit, all monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. Unless otherwise provided, monitoring shall commence the first full monitoring period following permit issuance. 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.

2.5.1 Pre-Operational Monitoring

Not applicable at the time of permit issuance.

2.5.2 Discharge Monitoring

The permittee shall monitor effluent flow according to Section 4.2, Tables IA, IB, IC, ID, IE and IF. Flow shall be monitored by meters located at the inflow points to the recharge sites. Effluent quality monitoring shall be conducted at PVUC Campus 1 WRF under APP No. P-105228.

2.5.3 Reclaimed Water Monitoring

Not applicable.

2.5.4 Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.2, Table III.

If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented in the facility log book as per Section 2.7.2 and reported to ADEQ in case of a violation or exceedance as per Section 2.7.3.

2.5.5 Groundwater Monitoring and Sampling Protocols

The permittee shall monitor the groundwater quality according to Section 4.2, Tables IIA and IIB. The permittee shall monitor the depth to the top of the recharge mound at each recharge site according to Section 4.2, Table IIC.

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80 percent of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as "dry" for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the SMRF.

Static water levels shall be measured and recorded prior to sampling. The permittee may conduct the sampling using the low-flow purging method as described in the Arizona Water Resources Research Center, March 1995 *Field Manual for Water Quality Sampling*. The well must be purged until indicator parameters stabilize. Indicator parameters shall include dissolved oxygen, turbidity, pH, temperature, and conductivity.

2.5.5.1 POC Well Replacement

In the event that one or more of the designated POC wells should become unusable or inaccessible due to damage, exceedance of an alert level (AL) for water level as required by Section 2.6.2.3.4(3), or any other event, a replacement POC well shall be constructed and installed upon approval by ADEQ. If the replacement well is fifty feet or less from the original well, the ALs and/or aquifer quality limits (AQLs) calculated for the designated POC well shall apply to the replacement well.

2.5.5.2 Ambient Groundwater Monitoring

Eight (8) Monthly groundwater sampling events are required to establish ambient groundwater quality at POC #4 and #5. The ambient monitoring constituents are listed in Section 4.2, Table IIA.

The permittee shall not use more than twelve (12) sample rounds in the calculation. Within 30 days of the receipt of the final ambient groundwater sampling event results the permittee shall submit to the Department a (minor) amendment application, along with copies of all laboratory analytical reports, field notes, QA/QC procedures used in collection and analysis of the samples, and a report including the statistical calculations of the ALs and AQLs for parameters which have an established numeric AWQS. After four sampling events, the permittee may determine to use of the numeric AWQS as the AQL and 80% of the AWQS as the AL and discontinue ambient groundwater monitoring. Upon completion of the ambient monitoring, routine groundwater monitoring shall commence in accordance with Section 4.2, Table IIB.

2.5.5.2.1 Alert Levels for POC Well

For each of the monitored analytes for which a numeric aquifer water quality standard (AWQS) has been adopted, the AL shall be established as follows:

The ALs shall be established and calculated by the following formula or another valid statistical method submitted to be submitted in writing and approved for this permit by the Groundwater Protection Value Stream:

ALs shall be calculated for all contaminants with an established numeric AWQS for the POC well listed on Table IIA. For any new or replacement POC wells, ALs shall be calculated for all contaminants with an established numeric AWQS, as described below.

As per the compliance schedule, following receipt of the laboratory analyses for the final month of the ambient groundwater monitoring period for each POC well referenced in Section 4.2, Table 4.2 the permittee shall submit the ambient groundwater data in tabulated form to the Groundwater Protection Value Stream for review. Copies of all laboratory analytical reports, field notes, and the Quality Assurance/Quality Control (QA/QC) procedures used in collection and analyses of the samples for all parameters listed in Section 4.2, Table IIA, to be established for each POC well, shall be submitted to the Groundwater Protection Value Stream. The permittee may submit a report with the calculations for each AL and AQL included in the permit for review and approval by ADEQ, or the permittee may defer calculation of the ALs and AQLs by the Groundwater Protection Value Stream. The ALs shall be established and calculated by the following formula, or another valid statistical method submitted to Groundwater Protection Value Stream in writing and approved for this permit by the Groundwater Protection Value Stream:

$$AL = M + KS$$

Where M = mean, S = standard deviation, and K = one-sided normal tolerance interval with a 95% confidence level (Lieberman, G.J. (1958) Tables for One-sided Statistical Tolerance Limits: Industrial Quality Control, Vol XIV, No. 10). Obvious outliers should be excluded from the data used in the AL calculation.

The following criteria shall be met in establishing ALs in the permit:

1. The AL shall be calculated for a parameter using the analyses from a minimum of eight sample events.
2. Any data where the laboratory Practical Quantitation Limit (PQL) exceeds 80% of the AWQS shall not be included in the AL calculation.
3. If a parameter is below the detection limit, the permittee must report the value as “less than” the numeric value for the PQL or detection limit for the parameter, not just as “non-detect”. For those parameters, the permittee shall use a value of one-half the reported detection limit for the AL calculation.
4. If the analytical results from more than 50% of the samples for a specific parameter are non-detect, then the AL shall be set at 80% of the AWQS.

5. If the calculated AL for a specific constituent and well is less than 80% of the AWQS, the AL shall be set at 80% of the AWQS for that constituent in that well.

2.5.5.2.2 Aquifer Quality Limits for POC Wells

For each of the monitored analytes for which a numeric aquifer water quality standard (AWQS) has been adopted, the AQL shall be established as follows:

1. If the calculated AL is less than the AWQS, then the AQL shall be set equal to the AWQS.
2. If the calculated AL is greater than the AWQS, then the AQL shall be set equal to the calculated AL value, and no AL shall be set for that constituent at that monitoring point.

2.5.5.3 Routine Groundwater Monitoring

Routine groundwater sampling will be required in the POC well upon completing the ambient groundwater sampling. The ALs/AQLs will be set in the routine groundwater sampling based on ADEQ's evaluation and approval of the proposed ALs/AQLs submitted by the applicant according to the compliance schedule. Upon completion of the ambient groundwater sampling the permittee shall monitor constituents listed in Section 4.2 Table IIB.

2.4.5.4. Ambient Recharge Mounding

Upon commencement of discharge to a site the permittee shall monitor the depth to the top of the recharge mound at each recharge site according to Section 4.2, Table IIC, Section 2.7.4.2 and Section 3.0, Compliance Schedule.

2.5.6 Surface Water Monitoring and Sampling Protocols

Routine surface water monitoring is not required under the terms of this permit.

2.5.7 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. If all methods have detection limits higher than the applicable limit, the permittee shall follow the applicable contingency requirements of Section 2.6 and may propose "other actions" including amending the permit to set higher limits. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification unless exempted under A.R.S. § 36-495.02. 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, Arizona 85007
Phone: (602) 364-0720

2.5.8 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the Groundwater Protection Value Stream for approval prior to installation and the permit shall be amended to include any new monitoring points.

2.6 Contingency Plan Requirements

[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 General Contingency Plan Requirements

At least one copy of this permit and the approved contingency and emergency response plan shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

Any AL exceedance, or violation of an AQL, DL, or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL or DL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling had been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL or any other permit condition.

2.6.2 Exceeding of Alert Levels and Performance Levels

2.6.2.1 Exceeding of Performance Levels Set for Operational Conditions

1. If an operational performance level set in Section 4.2, Table III has been exceeded the permittee shall:
 - a. Notify the Groundwater Protection Value Stream within five (5) days of becoming aware of the exceedance.
 - b. Submit a written report to the Groundwater Protection Value Stream within 30 days after becoming aware of the exceedance. The report shall document all of the following:
 - (1) A description of the exceedance and the cause of the exceedance;
 - (2) The period of the exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;
 - (3) Any action taken or planned to mitigate the effects of the exceedance or spill, or to eliminate or prevent recurrence of the exceedance or spill;
 - (4) Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS; and
 - (5) Any malfunction or failure of pollution control devices or other equipment or process.
2. The facility is no longer on alert status once the operational indicator no longer indicates that a performance level is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2.6.2.2 Exceeding of Alert Levels (ALs) Set for Discharge Monitoring

1. If an AL set in Section 4.2, Tables IA through IF has been exceeded, the permittee shall immediately investigate to determine the cause. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the exceedance;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences; and
 - c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the exceedance, the permittee shall sample individual waste streams composing the wastewater for the parameter(s) in question, if necessary to identify the cause of the exceedance.

2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to the AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.
3. Within thirty days of an AL exceedance, the permittee shall submit the laboratory results to the Groundwater Protection Value Stream along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.2.2.1 Exceeding Permit Flow Limit

If the AL for monthly average daily flow in Section 4.2, Tables IA through IF has been exceeded, the permittee shall submit an application to the Groundwater Protection Value Stream for a permit amendment to expand the treatment facility, or submit a report detailing the reasons an expansion is not necessary. Acceptance of the report instead of an application for amendment requires ADEQ approval.

2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1 Alert Levels for Indicator Parameters

No ALs have been established for indicator parameters.

2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

1. If an AL for a pollutant set in Section 4.2, Tables IIA through IIC have been exceeded, the permittee may conduct verification sampling of the pollutant(s) that exceed their respective AL(s) within five days of becoming aware of the exceedance. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms the AL exceedance or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring for the pollutant(s) exceeding their respective AL(s) as follows:

Specified Monitoring Frequency (Section 4.2, Tables IIA through IIC)	Monitoring Frequency for AL Exceedance
Daily	Daily
Weekly	Daily
Monthly	Weekly
Quarterly	Monthly
Semi-annually	Quarterly
Annually	Quarterly

In addition, the permittee shall immediately initiate an investigation of the cause of the AL exceedance, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.

3. The permittee shall initiate actions identified in the approved contingency plan referenced in Part 5.0 and specific contingency measures identified in Part 2.6 to resolve any

problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Groundwater Protection Value Stream, that although an AL is exceeded, the pollutant(s) that exceed their respective AL(s) are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency, for those pollutant(s) that exceed their respective AL(s), for approval in writing by the Groundwater Protection Value Stream.

4. Within 30 days after confirmation of an AL exceedance for those pollutant(s), the permittee shall submit the laboratory results to the Groundwater Protection Value Stream along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
5. Upon review of the submitted report, the Department may require the permit to be amended to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
6. The increased monitoring for those pollutant(s) required as a result of an AL exceedance may be reduced to the monitoring frequency in Section 4.2, Tables IIA through IIC if the results of four sequential sampling events demonstrate that no parameters exceed their respective AL(s).
7. If the increased monitoring required as a result of an AL exceedance for those pollutant(s) continues for more than six sequential sampling events, the permittee shall submit a second report documenting an investigation of the continued AL exceedance within 30 days of the receipt of laboratory results of the sixth sampling event.

2.6.2.3.3 Alert Levels to Protect Downgradient Users from Pollutants Without Numeric Aquifer Water Quality Standards

Not required at time of issuance.

2.6.2.3.4 Alert Level for Top of Mound

Each ASR site shall have a well to monitor the top of the recharge mound(s). Recharge mounds within a limit of not less than 25 feet.

2.6.3 Discharge Limit Violation

1. If a DL set in Section 4.2, Tables IA through IF have been violated, the permittee shall immediately investigate to determine the cause of the violation. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the violation;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences; and
 - c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the violation, the permittee shall sample individual waste streams composing the wastewater for the parameters in violation, as necessary to identify the cause of the violation.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

2. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.4 Aquifer Quality Limit Violation

1. If an AQL set in Section 4.2, Tables IIA through IIC has been exceeded, the permittee may conduct verification sampling for those pollutant(s) that were above their respective AQL(s) within five days of becoming aware of the exceedance. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If the verification sample does not confirm an AQL violation, no further action is needed under this Section.
3. If verification sampling confirms that the AQL is violated for those pollutant(s) that were above their respective AQL(s) or if the permittee opts not to perform verification sampling, then, the permittee shall increase the frequency of monitoring as follows, for those pollutant(s) that exceeded their respective AQL(s):

Specified Monitoring Frequency (Section 4.2, Tables IIA through IIC)	Monitoring Frequency for AQL Exceedance
Daily	Daily
Weekly	Daily
Monthly	Weekly
Quarterly	Monthly
Semi-annually	Quarterly
Annually	Quarterly

In addition, the permittee shall immediately initiate an evaluation for the cause of the violation, including inspection of all discharging units and all related pollution control devices, and review of any operational and maintenance practices that might have resulted in unexpected discharge.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. A verified exceedance of an AQL will be considered a violation unless the permittee demonstrates within 30 days that the exceedance was not caused or contributed to by pollutants discharged from the facility. Unless the permittee has demonstrated that the exceedance was not caused or contributed to by pollutants discharged from the facility, the permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, notification of downstream or downgradient users who may be directly affected by the violation, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. § 49-201(12) and pursuant to A.R.S. § 49-241

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(19)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the Groundwater Protection Value Stream within 24 hours of discovering the discharge of hazardous material which (a) has the potential to cause an AWQS or AQL exceedance, or (b) could pose an endangerment to public health or the environment.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the Groundwater Protection Value Stream within 24 hours of discovering the discharge of non-hazardous material which has the potential to cause an AQL exceedance or could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to the Groundwater Protection Value Stream within 30 days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in the notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

Specific contingency measures identified in Section 2.6 have already been approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Groundwater Protection Value Stream prior to implementing a corrective action to accomplish any of the following goals in response to exceedance of an AL or violation of an AQL, DL, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer;
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the Groundwater Protection Value Stream, a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements

[A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self-Monitoring Report Form

1. The permittee shall complete the Self-Monitoring Report Form (SMRF) provided by ADEQ, and submit the completed report through the myDEQ online reporting system.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the Form. If no information is required during a reporting period, the permittee shall enter “not

required” on the Form, include an explanation, and submit the Form to the Groundwater Protection Value Stream.

3. The tables contained in Section 4.2 list the monitoring parameters and the frequencies for reporting results on the SMRF:

Table IA - Discharge Monitoring - PVUC Campus 1 WRF - Effluent pump station

Table IB - Discharge Monitoring - Influent to PVUC Campus 1 WRF recharge site

Table IC - Discharge Monitoring - Influent to Groves Recycled Water Management Facility Recharge Site

Table ID - Discharge Monitoring - Influent to Rancho El Dorado WDC recharge site

Table IE - Discharge Monitoring - Influent Point to Villages Recharge Site

Table IF - Discharge Monitoring - Influent Point to Groves Well Recharge Site

Table IIB - Routine Groundwater Monitoring

The parameters listed in the above identified tables from Section 4.0 are the only parameters for which SMRF reporting is required.

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms, or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

1. Name of inspector;
2. Date and time inspection was conducted;
3. Condition of applicable facility components;
4. Any damage or malfunction, and the date and time any repairs were performed;
5. Documentation of sampling date and time; and
6. Any other information required by this permit to be entered in the log book.
7. Monitoring records for each measurement shall comply with A.A.C. R18-9-A206(B).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Groundwater Protection Value Stream in writing within five (5) days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation, or of an AL exceedance.
2. The permittee shall submit a written report to the Groundwater Protection Value Stream within 30 days of becoming aware of the violation of any permit condition, AQL, or DL. The report shall document all of the following:
 - a. Identification and description of the permit condition for which there has been a violation and a description of the cause;
 - b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
 - c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;
 - d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS;
 - e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
 - f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

The permittee shall record the information as required in Section 4.2, Table III in the facility log book as per Section 2.7.2, and report to the Groundwater Protection Value Stream any violations or exceedances as per Section 2.7.3.

If the treatment facility is classified for reclaimed water under this permit, the permittee shall submit the reclaimed water monitoring results and flow volumes to any of the following in accordance with A.A.C. R18-9-B701(C)(2)(c):

1. Any reclaimed water agent who has contracted for delivery of reclaimed water from the permittee; and
2. Any end user who has not waived interest in receiving this information.

2.7.4.1 Ambient Groundwater Monitoring Report

The permittee shall submit a report of the ambient groundwater monitoring as required in accordance with the Section 3.0, Compliance Schedule. The Ambient Groundwater Monitoring Report (AMGR) shall be submitted for POC #4 and #5 that is incorporated into the monitoring program of this permit. The report shall include summary tables of all groundwater quality data collected during the ambient groundwater monitoring period.

Ambient Groundwater Monitoring Report shall include the following:

- depth to groundwater measurements,
- groundwater elevation measurements,
- groundwater flow calculations,
- groundwater contour maps,
- certified laboratory reports,
- field data sheets and an assessment of groundwater flow.

2.7.4.2 Ambient Recharge Mounding

The permittee shall submit a report of for each of the recharge sites of the depth to the top of the recharge mound per Section 4.2, Table IIC and Section 3.0, Compliance Schedule.

2.7.5 Reporting Location

All Self-Monitoring Report Forms (SMRFs) shall be submitted through the myDEQ portal accessible on the ADEQ website at: <http://www.azdeq.gov/welcome-mydeq>

All other documents required by this permit to be submitted to the Groundwater Protection Value Stream shall be directed to:

Arizona Department of Environmental Quality
Groundwater Protection Value Stream
Mail Code 5415B-3
1110 West Washington Street
Phoenix, Arizona 85007
Phone (602) 771-4999

2.7.6 Reporting Deadline

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

Monitoring conducted during quarter:	Quarterly Report due by:
October-December	January 30

2.7.7 Changes to Facility Information in Section 1.0

The Groundwater Protection Value Stream shall be notified within ten days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person, or Emergency Telephone Number.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the Groundwater Protection Value Stream before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

1. If applicable, direct the wastewater flows from the facility to another state-approved wastewater treatment facility;
2. Correct the problem that caused the temporary cessation of the facility; and
3. Notify the Groundwater Protection Value Stream with a monthly facility status report describing the activities conducted on the treatment facility to correct the problem.
4. Submittal of Self-Monitoring Report Forms (SMRFs) is still required; report “temporary cessation” in the comment section.

At the time of notification, the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Groundwater Protection Value Stream of the operational status of the facility every three years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]

For a facility addressed under this permit, the permittee shall give written notice of closure to the Groundwater Protection Value Stream of the intent to cease operation without resuming activity for which the facility was designed or operated. Submittal of SMRFs is still required; report “closure in process” in the comment section.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Groundwater Protection Value Stream, a closure plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3).

If the closure plan achieves clean-closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean-closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Groundwater Protection Value Stream indicating that the approved closure plan has been implemented fully and providing supporting documentation to demonstrate that clean-closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean-closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of post-closure stated in this permit:

1. Clean-closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with the AWQS at the applicable POC;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remediation or mitigation measures are necessary to achieve compliance with Title 49, Ch. 2; and,
5. Further action is necessary to meet property use restrictions.

2.10 Post-closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9 A209(C)]

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Groundwater Protection Value Stream.

In the event clean-closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Protection Value Stream a post-closure plan that addresses post-closure maintenance and monitoring actions at the facility. The post-closure plan shall meet all requirements of A.R.S. §§ 49-201(30) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the post-closure plan, this permit shall be amended, or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the post-closure plan.

2.10.1 Post-Closure Plan

A specific post-closure plan may be required upon the review of the closure plan.

2.10.2 Post-Closure Completion

Not required at the time of permit issuance.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

Unless otherwise indicated, for each compliance schedule item listed below, the permittee shall submit the required information to the Groundwater Protection Value Stream.

No.	Description	Due by:	Permit Amendment Required?
3.1	Prior to discharging to the Campus 1 WRF recharge site the permittee shall submit a permit amendment to update the closure cost to include closure of this facility.	Within 90 days of discharging	Yes
3.2	Prior to discharging to the Rancho El Dorado Water Distribution Center (WDC), the permittee shall submit a permit amendment to update the closure cost to include closure of this facility.	Within 90 days of discharging	Yes
3.3	Prior to discharging to the Villages Recharge Site, the permittee shall submit a permit amendment to update the closure cost to include closure of this facility.	Within 90 days of discharging	Yes
3.4	Prior to discharging to the Grove Well Site, the permittee shall submit a permit amendment to update the closure cost to include closure of this facility.	Within 90 days of discharging	Yes
Groves Recycled Water Management Facility			
3.5	Notify the Groundwater Protection Value Stream of beginning discharge and begin routine groundwater monitoring at POC #3 under Table IIB.	Within 30 days after the commencement of discharge	No
PVUC Campus 1 WRF recharge site			
3.6	Notify the Groundwater Protection Value Stream of beginning discharge and begin routine groundwater monitoring at POC #1 under Table IIB.	Within 30 days after the commencement of discharge	No
Recharge Mound Monitoring			
3.6	The applicant shall submit to the Groundwater Protection Value Stream a proposed well location at each recharge site to monitor the top of the recharge mound.	Within three (3) months prior to the anticipated commencement of discharge at each recharge site.	No
3.7	Install an alert level well at each recharge site to monitor the top of the recharge mound.	Upon receipt of ADEQ approval of each well location.	No

3.8	Begin collecting eight (8) monthly rounds of depth to water measurements in each alert level well as per Section 4.2, Table IIC.	The first (1 st) measurement shall be collected within 30 days after the commencement of discharge at each recharge site.	No
3.9	Submit an APP amendment application to the Groundwater Protection Value Stream, including latitude and longitude coordinates, ADWR Well Number, and a proposed AL for depth to water in each alert level well. Note – If applicable, the permittee may submit a single APP amendment application to set ALs for multiple wells.	Within 30 days after collecting the eighth (8 th) depth to water measurement in each well.	No
3.10	The applicant shall submit to the Groundwater Protection Value Stream a proposed well location at each recharge site to monitor the top of the recharge mound.	Within three (3) months prior to the anticipated commencement of discharge at each recharge site.	No
POC #4 – Villages recharge site			
3.11	The applicant shall submit design plans for the monitoring well at POC #4 to the Groundwater Protection Value Stream for review and approval prior to installation.	Prior to installing well.	No
3.12	Install the groundwater monitor well at POC #4.	Within 30 days after receipt of approval from ADEQ.	No
3.13	Submit a Well Installation Report to the Groundwater Protection Value Stream.	Within 15 days after installation of the monitoring well at POC #4.	No
3.14	Begin collecting eight (8) monthly rounds of ambient groundwater monitoring for the parameters listed in Section 4.0, Table IIA. After collecting the final ambient groundwater sample, the permittee may commence discharge at the Villages recharge site.	The first (1 st) sample shall be collected within 15 days after installation of the monitoring well at POC #4.	No
3.15	Notify the Groundwater Protection Value Stream of the commencement of discharge at the Villages recharge site.	Within 30 days after the commencement of discharge.	No
3.16	Begin routine groundwater monitoring at POC #4 under Section 4.2, Table IIB.	Within 30 days after the commencement of discharge.	No
3.17	Submit an APP amendment application to the Groundwater Protection Value Stream, including the latitude and longitude coordinates of the well, the ADWR Well Number, and an Ambient Groundwater Monitoring Report summarizing the results of all eight (8) rounds of ambient groundwater monitoring at POC #4. The APP amendment application shall include proposed ALs and AQLs for routine groundwater monitoring at POC #4.	Within 60 days after collecting the eighth (8 th) ambient groundwater sample.	Yes
POC #5 – Groves Well Site recharge site			
3.18	The applicant shall submit design plans for the monitoring well at POC #5 to the Groundwater Protection Value Stream for review and approval prior to installation.	Prior to installing well.	No
3.19	Install the groundwater monitor well at POC #5.	Within 30 days after receipt of approval from ADEQ.	No

3.20	Submit a Well Installation Report to the Groundwater Protection Value Stream.	Within 15 days after installation of the monitoring well at POC #5.	No
3.21	Begin collecting eight (8) monthly rounds of ambient groundwater monitoring for the parameters listed in Section 4.0, Table IIA. After collecting the final ambient groundwater sample, the permittee may commence discharge at the Maricopa Groves Well Site recharge site.	The first (1 st) sample shall be collected within 15 days after installation of the monitoring well at POC #5.	No
3.22	Notify the Groundwater Protection Value Stream of the commencement of discharge at the Maricopa Groves Well Site recharge site.	Within 30 days after the commencement of discharge.	No
3.23	Begin routine groundwater monitoring at POC #5 under Section 4.2, Table IIB.	Within 30 days after the commencement of discharge.	No
3.24	Submit an APP amendment application to the Groundwater Protection Value Stream, including the latitude and longitude coordinates of the well, the ADWR Well Number, and an Ambient Groundwater Monitoring Report summarizing the results of all eight (8) rounds of ambient groundwater monitoring at POC #5. The APP amendment application shall include proposed ALs and AQLs for routine groundwater monitoring at POC #5.	Within 60 days after collecting the eighth (8 th) ambient groundwater sample.	Yes
Cessation of any recharge site			
3.25	Notify the Groundwater Protection Value Stream the cessation of discharge to any of the recharge sites.	Within 15 days after the cessation of discharge to each recharge site.	No
Financial Assurance			
3.26	The permittee shall submit a demonstration that the financial assurance mechanism listed in Section 2.1, Financial Capability, is being maintained as per A.R.S. 49-243.N.4 and A.A.C. R18-9-A203(H) for all estimated closure and post-closure costs including updated costs submitted under Section 3.34, below. The demonstration shall include a statement that the closure and post-closure strategy has not changed, the discharging facilities listed in the permit have not been altered in a manner that would affect the closure and post-closure costs and discharging facilities have not been added. The demonstration shall also include information in support of a Certificate of Deposit as required in A.A.C. R18-9-A203(C)(3).	By July 20, 2026 and every six (6) years, for the duration of the permit.	No
3.27	The permittee shall submit updated cost estimates for facility closure and post-closure, as per A.A.C. R18-9-A201 (B)(5) and A.R.S. 49-243.N.2.a.	By July 20, 2026 and every 6 years thereafter.	Yes
3.28	The permittee is required to submit a signed, dated and sealed Engineer's Certificate of Completion (ECOC) for new recharge basin and percolation holes.	Prior to discharge and within 90 days of completion of construction per Section 3.0 of the permit.	No

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)

NA

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

Table IA - Discharge Monitoring - PVUC Campus 1 WRF - Effluent pump station
Table IB - Discharge Monitoring - Influent to PVUC Campus 1 WRF recharge site
Table IC - Discharge Monitoring - Influent to Groves Recycled Water Management Facility
Table ID - Discharge Monitoring - Influent to Rancho El Dorado WDC recharge site
Table IE - Discharge Monitoring - Influent Point to Villages Recharge Site
Table IF - Discharge Monitoring - Influent Point to Groves Well Site
Table IIA - Ambient Groundwater Monitoring – POC Well(s) #4 and #5
Table IIB - Routine Groundwater Monitoring
Table IIC – Ambient Groundwater Monitoring- Depth to Top of the Recharge Mound
Table III - Facility Inspection (Operational Monitoring) - Logbook

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IA₁
ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	PVUC Campus 1 WRF Effluent pump station			33° 05' 06.47" N	112° 00' 44.9" W
Parameter	AL ²	DL ³	Units	Sampling Frequency	Reporting Frequency
Flow: Daily ⁴	Not Established ⁵	Not Established	mgd	Daily	Quarterly
Flow: Average Monthly ⁶	8.09	8.52	mgd	Monthly Calculation	Quarterly

4.0 TABLES OF MONITORING REQUIREMENTS

¹ This Table is for monitoring the effluent quantity being received at the five recharge sites.

²AL = Alert Level.

³DL = Discharge Limit.

⁴Flow shall be measured using a continuous recording flow meter.

⁵Not Established = Monitoring is required, but no limits have been set.

⁶ Monthly average of daily flow values.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IB₇
ROUTINE DISCHARGE MONITORING

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	Influent to PVUC Campus 1 WRF recharge site			33° 05' 13.18" N	112° 00' 44.51" W
Parameter	AL⁸	DL⁹	Units	Sampling Frequency	Reporting Frequency
Flow: Daily ¹⁰	Not Established ¹¹	Not Established	mgd	Daily	Quarterly
Flow: Average Monthly ¹²	1.30	1.63	mgd	Monthly Calculation	Quarterly

⁷ This Table is for monitoring the flow to the wells located at the PVUC Campus I WRF recharge site.

⁸AL = Alert Level.

⁹DL = Discharge Limit.

¹⁰Flow shall be measured using a continuous recording flow meter.

¹¹ Not Established = Monitoring is required, but no limits have been set.

¹² Monthly average of daily flow values.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IC₁₃
ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
3	Influent to Groves Recycled Water Management Facility			33° 02' 39"N	112° 01' 48" W
Parameter	AL¹⁴	DL¹⁵	Units	Sampling Frequency	Reporting Frequency
Flow: Daily ¹⁶	Not Established ¹⁷	Not Established	mgd	Daily	Quarterly
Flow: Average Monthly ¹⁸	3.2	4.0	mgd	Monthly Calculation	Quarterly

¹³ This Table is for monitoring the flow to the wells located at the Groves Recycled Water Management Facility.

¹⁴AL = Alert Level.

¹⁵DL = Discharge Limit.

¹⁶Flow shall be measured using a continuous recording flow meter.

¹⁷Not Established = Monitoring is required, but no limits have been set.

¹⁸ Monthly average of daily flow values.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE ID¹⁹
ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
4	Influent to Rancho El Dorado WDC recharge site			33° 04' 22.44" N	112° 01' 42.44" W
Parameter	AL²⁰	DL²¹	Units	Sampling Frequency	Reporting Frequency
Flow: Daily ²²	Not Established ²³	Not Established	mgd	Daily	Quarterly
Flow: Average Monthly ²⁴	1.29	1.61	mgd	Monthly Calculation	Quarterly

¹⁹ This Table is for monitoring the flow to the wells located at the Rancho El Dorado WDC recharge site.

²⁰AL = Alert Level.

²¹DL = Discharge Limit.

²²Flow shall be measured using a continuous recording flow meter.

²³Not Established = Monitoring is required, but no limits have been set.

²⁴ Monthly average of daily flow values.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IE₂₅
ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
5	Influent Point to Villages Recharge Site			33° 04' 19.71" N	112° 01' 53.87" W
Parameter	AL ₂₆	DL ₂₇	Units	Sampling Frequency	Reporting Frequency
Flow: Daily ²⁸	Not Established ²⁹	Not Established	mgd	Daily	Quarterly
Flow: Average Monthly ³⁰	0.60	0.75	mgd	Monthly Calculation	Quarterly

²⁵ This Table is for monitoring the flow to the wells located at the Villages recharge site.

²⁶AL = Alert Level.

²⁷DL = Discharge Limit.

²⁸Flow shall be measured using a continuous recording flow meter.

²⁹ Not Established = Monitoring is required, but no limits have been set.

³⁰ Monthly average of daily flow values.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IF₃₁
 ROUTINE DISCHARGE MONITORING**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
6	Influent Point to Groves Well Site			33° 02' 50.71" N	112° 01' 54.96" W
Parameter	AL₃₂	DL₃₃	Units	Sampling Frequency	Reporting Frequency
Flow: Daily ³⁴	Not Established ³⁵	Not Established	mgd	Daily	Quarterly
Flow: Average Monthly ³⁶	0.42	0.53	mgd	Monthly Calculation	Quarterly

³¹ This Table is for monitoring the flow to the wells located at the Maricopa Groves Well Site recharge site.

³²AL = Alert Level.

³³DL = Discharge Limit.

³⁴Flow shall be measured using a continuous recording flow meter.

³⁵ Not Established = Monitoring is required, but no limits have been set.

³⁶ Monthly average of daily flow values.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IIA
AMBIENT GROUNDWATER MONITORING³⁷

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
10	POC 4 (Proposed) Northwest corner of the Villages Recharge Site			33° 04' 19.70" N	112° 01' 53.87" W
11	POC 5 (Proposed) South edge of the Groves Well Site .			33° 02' 51.56" N	112° 01' 54.91" W
Parameter	AL ³⁸	AQL ³⁹	Units	Sampling Frequency	Reporting Frequency
Depth to water	Less than 5	Not Established	ft. bgs ⁴⁰	Monthly	Quarterly
Total Nitrogen ⁴¹	Not Established ⁴²	Not Established	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	Not Established	Not Established	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
E Coli	Not Established	Non-detect ⁴³	MPN	Monthly	Quarterly

³⁷The permittee shall cease monitoring under Table IIA upon completion of eight (8) monthly rounds of ambient groundwater sampling.

³⁸ AL = Alert Level

³⁹ AQL = Aquifer Quality Limit

⁴⁰ ft. bgs = Feet below ground surface

⁴¹ Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

⁴² Not Established = Monitoring is required, but no limits have been set.

⁴³Non-detect - For MPN, a value of <2.2 shall be considered to be non-detect

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IIA
AMBIENT GROUNDWATER MONITORING (continued)**

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	Not Established	Not Established	mg/l	Quarterly	Quarterly
Arsenic	Not Established	Not Established	mg/l	Quarterly	Quarterly
Barium	Not Established	Not Established	mg/l	Quarterly	Quarterly
Beryllium	Not Established	Not Established	mg/l	Quarterly	Quarterly
Cadmium	Not Established	Not Established	mg/l	Quarterly	Quarterly
Chromium	Not Established	Not Established	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	Not Established	Not Established	mg/l	Quarterly	Quarterly
Fluoride	Not Established	Not Established	mg/l	Quarterly	Quarterly
Lead	Not Established	Not Established	mg/l	Quarterly	Quarterly
Mercury	Not Established	Not Established	mg/l	Quarterly	Quarterly
Nickel	Not Established	Not Established	mg/l	Quarterly	Quarterly
Selenium	Not Established	Not Established	mg/l	Quarterly	Quarterly
Thallium	Not Established	Not Established	mg/l	Quarterly	Quarterly

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IIA
AMBIENT GROUNDWATER MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	NE ⁴⁴	NE	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	NE	NE	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	NE	NE	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	NE	NE	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	NE	NE	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	NE	NE	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	NE	NE	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	NE	NE	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	NE	NE	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Styrene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Toluene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ⁴⁵	NE	NE	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	NE	NE	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	NE	NE	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	NE	NE	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	NE	NE	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	NE	NE	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	NE	NE	mg/l	Semi-Annually	Semi-Annually

⁴⁴Not Established = Monitoring is required, but no limits have been specified.

⁴⁵ Total Trihalomethanes are composed of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IIB
ROUTINE GROUNDWATER MONITORING⁴⁶

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
7	POC 1 (Well #55-907127) North edge of the PVUC Campus 1 WRF recharge site			33° 5' 12.92" N	112° 00' 45.51" W
Parameter	AL ⁴⁷	AQL ⁴⁸	Units	Sampling Frequency	Reporting Frequency
Depth to Water	Less than 5	Not Established	ft. bgs ⁴⁹	Monthly	Quarterly
Total Nitrogen ⁵⁰	Not Established ⁵¹	Not Established	mg/l ⁵²	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	17	23	mg/l	Monthly Calculation	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
<i>E.Coli</i>	Not Established	Non-detect ⁵³	MPN	Monthly	Quarterly

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
8	POC 2 (Well #55-903998) 750 feet Northwest of the Rancho El Dorado WDC recharge site.			33° 04' 19.94" N	112° 01' 53.12" W
Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Depth to Water	Less than 5	Not Established	ft. bgs ⁵⁴	Monthly	Quarterly
Total Nitrogen	Not Established	Not Established	mg/l	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	Not Established	Not Established	mg/l	Monthly Calculation	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
<i>E.Coli</i>	Not Established	Non-detect ⁵⁵	MPN	Monthly	Quarterly

⁴⁶ The permittee shall collect the first sample under Table IIC at each recharge site within 30 days after the commencement of recharge at each recharge site.

⁴⁷ AL = Alert Level

⁴⁸AQL = Aquifer Quality Limit

⁴⁹ ft. bgs = Feet below ground surface

⁵⁰ Total Nitrogen is equal to Nitrate as N plus Nitrite as N plus TKN. Use one sample to determine Total Nitrogen and the associated components (Nitrate as N, Nitrite as N, and TKN).

⁵¹Not Established = Monitoring is required, but no limits have been specified.

⁵² mg/l = milligrams per liter

⁵³Non-detect - For MPN, a value of <2.2 shall be considered to be non-detect

⁵⁴ ft. bgs = Feet below ground surface

⁵⁵Non-detect - For MPN, a value of <2.2 shall be considered to be non-detect

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IIB
ROUTINE GROUNDWATER MONITORING (continued)**

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
9	POC 3 (Well #55-205362) Southwestern edge of the Groves Recycled Water Management Facility			33° 02' 39.69" N	112° 01' 49.44" W
Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Depth to Water	Less than 5	Not Established	ft. bgs ⁵⁶	Monthly	Quarterly
Total Nitrogen	Not Established	Not Established	mg/l	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	Not Established	Not Established	mg/l	Monthly Calculation	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
<i>E. Coli</i>	Not Established	Non-detect ⁵⁷	MPN	Monthly	Quarterly

⁵⁶ ft. bgs = Feet below ground surface

⁵⁷Non-detect - For MPN, a value of <2.2 shall be considered to be non-detect

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IIB
ROUTINE GROUNDWATER MONITORING (continued)

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
10 ⁵⁸	POC 4 (Proposed) Northwest corner of the Villages Recharge Site			33° 04' 19.70" N	112° 01' 53.87" W
11 ⁵⁹	POC 5 (Proposed) South edge of the Maricopa Groves Well Site recharge site.			33° 02' 51.56" N	112° 01' 54.91" W
Parameter	AL ⁶⁰	AQL ⁶¹	Units	Sampling Frequency	Reporting Frequency
Depth to water	Less than 5	Not Established ⁶²	ft. bgs ⁶³	Monthly	Quarterly
Total Nitrogen ⁶⁴	Reserved ⁶⁵	Reserved	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	Reserved	Reserved	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
Total Coliform	Not Established	Non-detect ⁶⁶	MPN	Monthly	Quarterly

⁵⁸ The permittee shall begin routine groundwater monitoring at POC 4 within 30 days after the commencement of discharge at the Villages Recharge Site.

⁵⁹ The permittee shall begin routine groundwater monitoring at POC 5 within 30 days after the commencement of discharge at the Groves Well Site Recharge Site.

⁶⁰ AL = Alert Level

⁶¹ AQL = Aquifer Quality Limit

⁶² Not Established = Monitoring is required, but no limits are specified.

⁶³ Ft. bgs = Feet below ground surface

⁶⁴ Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

⁶⁵ Reserved = Numeric limits have not been established at this time. Limits will specified under an APP Amendment as per Section 3.0, Compliance Schedule.

⁶⁶Non-detect - For MPN, a value of <2.2 shall be considered to be non-detect

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IIB
ROUTINE GROUNDWATER MONITORING (continued)

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
7	POC 1 (Well #55-907127) North edge of the PVUC Campus 1 WRF recharge site			33° 05' 12.92" N	112° 00' 45.51" W
8	POC 2 (Well #55-903998) 750 feet Northwest of the Rancho El Dorado WDC recharge site.			33° 04' 19.94" N	112° 01' 53.12" W
9	POC 3 (Well #55-205362) Southwestern edge of the Groves Recycled Water Management Facility			33° 02' 39.69" N	112° 01' 49.44" W
10 ⁶⁷	POC 4 (Proposed) Northwest corner of the Villages Recharge Site			33° 04' 19.70" N	112° 01' 53.87" W
11 ⁶⁸	POC 5 (Proposed) South edge of the Groves Well Site			33° 02' 51.56" N	112° 01' 54.91" W
Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

⁶⁷ The permittee shall begin routine groundwater monitoring at POC 4 within 30 days after the commencement of discharge at the Villages Recharge Site.

⁶⁸ The permittee shall begin routine groundwater monitoring at POC 5 within 30 days after the commencement of discharge at the Groves Well Site Recharge Site.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE IIB
ROUTINE GROUNDWATER MONITORING (continued)**

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ⁶⁹	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

⁶⁹ Total Trihalomethanes are composed of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING⁷⁰

TABLE IIC
AMBIENT GROUNDWATER MONITORING
DEPTH TO TOP OF RECHARGE MOUND

Sampling Point Number	Sampling Point Identification	Latitude	Longitude	AL	Units	Sampling Frequency	Reporting Frequency
12	Recharge Mound Well RM-1 PVUC Campus 1 WRF recharge site	TBD ⁷¹	TBD	NE ⁷²	ft. bgs ⁷³	Monthly	Quarterly
13	Recharge Mound Well RM-2 Rancho El Dorado WDC recharge site	TBD	TBD	NE	ft. bgs	Monthly	Quarterly
14	Recharge Mound Well RM-3 Groves Recycled Water Management Facility	33° 01' 39.69" N	112° 01' 49.44" W	NE	ft. bgs	Monthly	Quarterly
15	Recharge Mound Well RM-4 Villages Recharge Site	TBD	TBD	NE	ft. bgs	Monthly	Quarterly
16	Recharge Mound Well RM-5 Groves Well Site	TBD	TBD	NE	ft. bgs	Monthly	Quarterly

⁷⁰ Monitoring at each well shall commence within 30 days after the commencement of discharge. Until that time indicate “No Flow” on the SMRFs.

⁷¹ TBD = To be determined. Latitude and longitude coordinates for the wells will be set under a permit amendment as per Section 3.1(e), Compliance Schedule.

⁷² NE=Not Established = Monitoring is required, but no limits have been established at the time of permit issuance. Limits will be set under a permit amendment as per Section 3.1(e), Compliance Schedule.

⁷³ ft. bgs = Feet below ground surface.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

**TABLE III
 FACILITY INSPECTION (OPERATIONAL MONITORING)⁷⁴ Logbook**

Pollution Control Structures/Parameter	Performance Levels	Inspection Frequency
Pump Integrity	Good working condition	Weekly
Recharge wells	Good working condition No biofouling	Monthly
Land subsidence and earth fissures	Any observed evidence of subsidence and earth fissures	Monthly
Flow meter	Good working condition	Monthly
Freeboard for Recharge Basin	Two (2) feet	Monthly

⁷⁴ The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any violations or exceedances as per Section 2.7.3. In the case of an exceedance, identify which structure exceeds the performance level in the log book.

5.0 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. APP Application dated: January 27, 2020
2. Contingency Plan, dated: December 19, 2019
3. Final Engineering Memo dated: April 14, 2020
4. Final Hydrologist Memo dated: May 15, 2020
5. Financial Review Memo dated: May 18, 2020
6. Public Notice date: NA

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based on the amount of daily influent or discharge of pollutants in gallons per day (gpd) as established by A.R.S. § 49-242.

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

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an Aquifer Water Quality Standard (AWQS) at the applicable point of compliance (POC) for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an AWQS for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability

[A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(C), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. the filing of bankruptcy by the permittee; or
2. the entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

6.8 Inspection and Entry [A.R.S. §§ 49-1009, 49-203(B), and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

**6.10 Permit Action: Amendment, Transfer, Suspension, and Revocation
[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]**

This permit may be amended, transferred, suspended, or revoked for cause, under the rules of the Department. The permittee shall notify the Groundwater Protection Value Stream in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Other Information [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

**7.2 Severability
[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]**

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.

7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).