

64176417ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

This document gives pertinent information concerning the issuance of the AZPDES permit listed below. This facility is groundwater remedial project and is considered to be a minor industrial facility under the NPDES program. Based on the National Pollutant Discharge Elimination System (NPDES) Permit Rating Criteria, the facility has scored 75 points, which is below the maximum 80 points allowed for minor dischargers. As a result, this facility is classified a Minor industrial discharger. The effluent limitations contained in this permit will maintain the Water Quality Standards listed in Arizona Administrative Code (A.A.C.) R18-11-101 et seq. This permit is proposed to be issued for a period of 5 years.

I. PERMITTEE INFORMATION	
Permittee's Name:	Tucson Water
Permittee's Mailing Address:	4401 S. Tucson Estates Parkway Tucson, AZ 85735
Facility Name:	Tucson Airport Area Remediation Project (TARP) Water Treatment Plant
Facility Address or Location:	1102 W. Irvington Road Tucson, AZ 85714
County:	Pima
Contact Person(s): Phone/e-mail address	Jeff Biggs, Tucson Water Administrator (520) 837 – 2111 / Jeff.Biggs@tucsonaz.gov
AZPDES Permit Number:	AZ0026417
Inventory Number:	513665
LTF Number:	90113

II. STATUS OF PERMIT(S)	
AZPDES permit applied for:	New
Date application received:	July 14, 2021
Date application was determined administratively complete:	July 27, 2021
Previous permit number (if different):	N/A
Previous permit expiration date:	N/A

208 Consistency:

In accordance with A.A.C. R18-9-A903(6), a permit cannot be issued for any discharge inconsistent with a plan or plan amendment approved under section 208(b) of the Clean Water Act.

208 Plan consistency is not required for industrial facilities.

III. GENERAL FACILITY INFORMATION	
Type of Facility:	Water treatment plant
Facility Location Description:	The facility is located east of the Santa Cruz River just north of the confluence with the West Branch Santa Cruz River.
Discharge Flow:	10.2 mgd
Applicable Treatment Processes:	Sediment removal, hydrogen peroxide, UV reactors, granulated activated carbon (GAC) contactors, and disinfection.
Nature of facility discharge:	Treated groundwater
Average flow per discharge:	10.2 mgd
Continuous or intermittent discharge:	Continuous
Discharge pattern summary:	Discharge is being initiated to bring the TARP treatment plant back online prior to losing containment of the groundwater contamination by the TARP remediation well field.
<p>Tucson Water operates the TARP water treatment plant in accordance with the 1991 Consent Decree with the U.S. Environmental Protection Agency (EPA) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Tucson Water has operated the TARP water treatment plant since September 1994, delivering treated groundwater to the municipal drinking water system. Future operation will include delivery of water to the City of Tucson Recycled Water System for non-potable uses and to the Santa Cruz River for managed recharge. Discharge is expected to begin October 1, 2021.</p> <p>The treatment process was upgraded to an advanced oxidation process (AOP) in 2014 to address volatile organic compounds (VOCs), principally trichloroethene (TCE), and 1,4-dioxane, an unregulated compound, by oxidation using hydrogen peroxide and ultraviolet (UV) light. In 2018, per- and polyfluoroalkyl substances (PFAS) were reported in water samples from the TARP treatment plant. GAC was replaced with a bituminous carbon capable of both quenching peroxide and adsorbing PFAS. The TARP treatment plant was shut down on June 21, 2021 over concerns of PFAS in groundwater from the TARP plume. Discharge of treated water to the Santa Cruz River must be initiated to quickly bring the TARP treatment plant back online prior to losing containment of the groundwater contamination by the TARP remediation well field.</p>	

IV. RECEIVING WATER	
<p>The State of Arizona has adopted water quality standards to protect the designated uses of its surface waters. Streams have been divided into segments and designated uses assigned to these segments. The water quality standards vary by designated use depending on the level of protection required to maintain that use.</p>	
Receiving Water:	Santa Cruz River, (Tubac Bridge to Agua Nueva WRF Outfall at 32° 17' 04" / 110° 01' 45")
River Basin:	Santa Cruz River Basin
Outfall Location(s):	Outfall 001: Township 14S, Range 13E, Section 35 Latitude 32° 10' 08" N, Longitude 110° 59' 23" W

IV. RECEIVING WATER

Designated uses for the receiving water listed above:	Aquatic and Wildlife ephemeral (A&We) Partial Body Contact (PBC) Agricultural Livestock watering (AgL)
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Per A.A.C. R18-11-113(D), the water quality standards that apply to effluent-dependent waters (EDWs) will be applied to derive discharge limitations for any point source discharge of wastewater to an ephemeral water. The draft AZPDES permit includes discharge limitations and monitoring requirements designed to achieve compliance with A&Wedw standards.

Therefore, the following uses are being applied to the receiving water:

- Aquatic and Wildlife effluent dependent water (A&Wedw)
- Partial Body Contact (PBC)
- Agricultural Livestock watering (AgL)

Is the receiving water on the 303(d) list?	No, and there are no TMDL issues associated.
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Given the uses stated above, the applicable narrative water quality standards are described in A.A.C. R18-11-108, and the applicable numeric water quality standards are listed in A.A.C. R18-11-109 and in Appendix A thereof. There are two standards for the Aquatic and Wildlife uses, acute and chronic. In developing AZPDES permits, the standards for all applicable designated uses are compared and limits that will protect for all applicable designated uses are developed based on the standards.

V. DESCRIPTION OF DISCHARGE

Because this is a new facility and no discharges have yet occurred, effluent monitoring data are not available. The following is the effluent quality based on the water treatment plant data, as outlined in the application.

Parameters	Units	Maximum Daily Discharge Concentration
pH	S.U.	8.17
PFOA and PFAS	ng/L	14.2
Trichloroethylene (TCE)	µg/L	< 0.5
1,4-dioxane	µg/L	< 0.1
Chloroform	µg/L	< 0.5

VI. STATUS OF COMPLIANCE WITH THE EXISTING AZPDES PERMIT

This section is not applicable because this is a new permit.

VIII. DETERMINATION OF EFFLUENT LIMITATIONS and ASSESSMENT LEVELS

When determining what parameters need monitoring and/or limits included in the draft permit, both technology-based and water quality-based criteria were compared and the more stringent criteria applied.

VIII. DETERMINATION OF EFFLUENT LIMITATIONS and ASSESSMENT LEVELS

Technology-based Limitations: As outlined in 40 CFR Part 125:

The regulations found at 40 CFR Part 125.3(c)(2) authorizes the use of technology-based treatment requirements based on best professional judgment (BPJ) for discharges from facilities for which EPA-promulgated effluent limitations are unavailable (inapplicable). The TARP Water Treatment Plant (WTP) is designed for efficient removal of TCE and 1,4-dioxane, and upgraded for the enhanced removal of PFAS. The discharge of treated water from the WTP can be sampled and analyzed with low detection limits. TCE, 1,4-dioxane, and PFAS are identified as a pollutants of concern as this project will be discharging treated groundwater from the TARP remediation well fields that have been characterized as containing these pollutants. The facility is designed, constructed, and operated as the remedy for TCE and 1,4-dioxane contamination in groundwater, removing contaminant mass from the aquifer over the past 27-years, while delivering over 55 billion gallons of water to the drinking water system. The discharge of treated water from the TARP WTP is being proposed to address large masses of PFAS in groundwater upgradient of the TARP remediation well fields. PFAS are not currently listed as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), but EPA is currently investigating the appropriate program(s) and procedures to designate PFAS as hazardous substances. The EPA has issued a Health Advisory Level (HAL) for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) under the Safe Drinking Water Act (SDWA). The proposed limits are based on SDWA HAL of 70 parts per trillion (ppt) for combined concentrations of PFOA and PFOS. The EPA has issued a HAL for 1,4-dioxane under the Safe Drinking Water Act (SDWA). The proposed limit is based on Safe Drinking Water Act HAL of 0.35 micrograms per liter for 1,4-dioxane.

Numeric Water Quality Standards: As outlined in A.A.C. R18-11-109 and Appendix A:

Per 40 CFR 122.44(d)(1)(ii), (iii) and (iv), discharge limits must be included in the permit for parameters with “reasonable potential” (RP), that is, those known to be or expected to be present in the effluent at a level that could potentially cause any applicable numeric water quality standard to be exceeded. RP refers to the possibility, based on the statistical calculations using the data submitted, or consideration of other factors to determine whether the discharge may exceed the Water Quality Standards. The procedures used to determine RP are outlined in the *Technical Support Document for Water Quality-based Toxics Control (TSD)* (EPA/505/2-90-001). In most cases, the highest reported value for a parameter is multiplied by a factor (determined from the variability of the data and number of samples) to determine a “highest estimated value”. This value is then compared to the lowest applicable Water Quality Standard for the receiving water. If the value is greater than the standard, RP exists and a water quality-based effluent limitation (WQBEL) is required in the permit for that parameter. RP may also be determined from BPJ based on knowledge of the treatment facilities and other factors. The basis for the RP determination for each parameter with a WQBEL is shown in the table below.

Since this is a new facility and effluent data are not yet available, RP could not be calculated for other potential pollutants that are subject to numeric water quality standards. Instead of WQBELs, assessment levels (ALs) were established for Trace Substances (Table 2 in the permit) using the data submitted in the application. ALs and relatively frequent monitoring are necessary for these parameters, because they are commonly present at variable concentrations and at a level that could potentially exceed the applicable water quality criteria for them. (See discussion under “Assessment Levels” below for further details.) For a number of other pollutants, Effluent Characterization (EC) monitoring is required at a lesser frequency and without established ALs or numeric limits (Tables 4.a. – 4.b in the draft permit). (See discussion under “Effluent Characterization” below for further details.)

The proposed permit limits were established using a methodology developed by EPA. Long Term Averages (LTA) were calculated for each designated use and the lowest LTA was used to calculate the maximum daily limit (MDL) necessary to protect all uses. This methodology takes into account criteria, effluent variability, and the number of observations taken to determine compliance with the limit and is described in Chapter 5 of the TSD. Limits based on A&W criteria were developed using the “two-value steady state wasteload allocation” described on page 99 of the TSD. When the limit is based on human health criteria, the monthly average was set at the level of the applicable standard and a daily maximum limit was determined as specified in Section 5.4.4 of the TSD.

VIII. DETERMINATION OF EFFLUENT LIMITATIONS and ASSESSMENT LEVELS

Mixing Zone

Arizona water quality rules require that water quality standards be achieved without mixing zones unless the permittee applies and is approved for a mixing zone. Since the receiving stream for this discharge is ephemeral prior to the discharge, no water is available for a mixing zone and all water quality criteria are applied at end-of pipe. This means that the effluent concentration must meet stream standards.

Assessment Levels (ALs)

ALs are listed in Part I.B of the permit. An AL differs from a discharge limit in that an exceedance of an AL is not a permit violation. Instead, ALs serve as triggers, alerting the permitting authority when there is cause for re-evaluation of RP for exceeding a water quality standard, which may result in new permit limitations. The AL numeric values also serve to advise the permittee of the analytical sensitivity needed for meaningful data collection. Trace substance monitoring is required when there is uncertain RP (based on non-detect values or limited datasets) or a need to collect additional data or monitor treatment efficacy on some minimal basis. A reopener clause is included in the draft permit should future monitoring data indicate water quality standards are being exceeded.

The requirement to monitor for these parameters is included in the draft permit according to A.A.C. R18-11-104(C) and Appendix A.

The following trace substances were not included as limits or assessment levels in the draft permit due to a lack of RP based on best professional judgment (BPJ): barium, nitrates, nitrites, and manganese. The numeric standards for these pollutants are well above what would be expected from the WTP discharge.

Hardness

The permittee is required to sample hardness as CaCO₃ at the same time the trace metals are sampled because the water quality standards for some metals are calculated using the water hardness values. The hardness value of 202 mg/L (the average hardness of the groundwater wells as provided in the application) was used to calculate the applicable water quality standards and any assessment levels or limits for the hardness dependent metals (cadmium, chromium III, copper, lead, nickel, silver and zinc).

Whole Effluent Toxicity (WET)

WET testing is required in the draft permit (Parts I.C and III) to evaluate the discharge according to the narrative toxic standard in A.A.C. R18-11-108(A)(5), as well as whether the discharge has RP for WET per 40 CFR 122.44(d)(iv).

WET testing for chronic and/or acute toxicity is required. The requirement to conduct chronic toxicity testing is contingent upon the frequency or duration of discharges. Since completion of the chronic WET test requires a minimum of three samples be taken for renewals, the chronic WET test is not required during any given monitoring period in which the discharge does not occur over seven consecutive calendar days and is not repeated more frequently than every thirty days.

WET testing for chronic toxicity shall be conducted using the following three surrogate species:

- *Ceriodaphnia dubia* (water flea) – for evaluating toxicity to invertebrates
- *Pimephales promelas* (fathead minnow) – for evaluating toxicity to vertebrates
- *Pseudokirchneriella subcapitata* (formerly known as *Selenastrum capricornutum* or *Raphidocelis subcapitata*) (a green alga) – for evaluating toxicity to plant life

ADEQ does not have a numeric standard for Whole Effluent Toxicity. However, ADEQ adopted the EPA recommended chronic toxicity benchmark of 1.0 TUc for a four day exposure period. Using this benchmark, the limitations and/or action levels for WET included in the draft permit were calculated in accordance with the methods specified in the

VIII. DETERMINATION OF EFFLUENT LIMITATIONS and ASSESSMENT LEVELS

TSD. The species chosen for WET testing are as recommended in the *TSD* and in *Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs*.

An exceedance of a limit or action level will trigger follow-up testing to determine if effluent toxicity is persistent. If toxicity above a limit or action level is found in a follow-up test, the permittee will be required to conduct a Toxicity Reduction Evaluation (TRE) and possibly a Toxicity Identification Evaluation (TIE) to identify the source of toxicity and reduce toxicity. These conditions are required to ensure that toxicants are not discharged in amounts that are toxic to organisms [A.A.C. R18-11-108(A)(5)]. A reopener clause is included in accordance with 40 CFR Parts 122 and 124 and AAC R18-9-B906.

The draft permit requires 24-hour composite samples be collected for WET testing. WET sampling must coincide with testing for all the parameters in Parts I.A and B of the draft permit, when testing of those parameters is required, to aid in the determination of the cause of toxicity if toxicity is detected. Additional procedural requirements for the WET test are included in the proposed permit.

The required WET monitoring frequency for this facility is consistent with the WET testing frequency required for facilities with a similar design flow. The draft permit requires WET test results to be reported on discharge monitoring reports and submittal of the full WET lab report to ADEQ.

Effluent Characterization (EC)

In addition to monitoring for parameters assigned either a limit or an AL, sampling is required to assess the presence of pollutants in the discharge at certain minimum frequencies for additional suites of parameters, whether the facility is discharging or not. This monitoring is specified in Tables 4.a. and 4.b., *Effluent Characterization Testing*, as follows:

- Table 4.a. – General Chemistry, PFOS/PFOA, 1,4-dioxane
- Table 4.b. – Selected Metals, Hardness, Cyanide, and WET

NOTE: Some parameters listed in Tables 4.a. and 4.b. are also listed in Tables 1 or 2. In this case, the data from monitoring under Tables 1 or 2 may be used to satisfy the requirements of Tables 4.a. and / or 4.b., provided the specified sample types are the same. In the event the facility does not discharge to a water of the U.S. during the life of the permit, EC monitoring of representative samples of the effluent is still required.

The purpose of EC monitoring is to characterize the effluent and determine if the parameters of concern are present in the discharge and at what levels. This monitoring will be used to assess RP per 40 CFR 122.44(d)(1)(iii)). EC monitoring is required in accordance with 40 CFR 122.43(a), 40 CFR 122.44(i), and 40 CFR 122.48(b) as well as A.R.S. §49-203(A)(7). If pollutants are noted at levels of concern during the permit term, this permit may also be reopened to add related limits or conditions.

Permit Limitations and Monitoring Requirements

The table that follows summarizes the parameters that are limited in the permit and the rationale for that decision. Also included are the parameters that require monitoring without any limitations or that have not been included in the permit at all and the basis for those decisions. The corresponding monitoring requirements are shown for each parameter. In general, the regulatory basis for monitoring requirements is per 40 CFR §122.44(i) *Monitoring requirements*, and 40 CFR §122.48(b), *Required monitoring*; all of which have been adopted by reference in A.A.C. R18-9-A905, *AZPDES Program Standards*.

Parameter	Lowest Standard / Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/ Rationale (1)
Flow	---	---	---	---	---	Discharge flow is to be monitored on a continual basis using a flow meter.
pH	Minimum: 6.5 Maximum: 9.0 A&Wedw and PBC A.A.C. R18-11-109(B)	Min - 6.83 S.U. Max - 8.17 S.U.	980	N/A	N/A	pH is to be monitored using a discrete sample of the effluent for effluent characterization. 40 CFR Part 136 specifies that grab samples must be collected for pH. At least one sample must coincide with WET testing to aid in the determination of the cause of toxicity if toxicity is detected.
Temperature	R18-11-109C the discharge shall not cause an increase in the ambient water temperature. A&Wedw: no more than 3.0°C	Winter – 24.9°C Summer - 26.1°C	6	N/A	N/A	Effluent temperature is to be monitored for effluent characterization by discrete sample. 40 CFR Part 136 specifies that discrete samples must be collected for temperature.
PFOA and PFOS	No applicable standard	14.2 ng/L	122	N/A	RP (Based on BPJ)	Monitoring required and a TBEL is set in the permit.
1,4-dioxane	No applicable standard	< 0.1 µg/L	122	N/A	RP (Based on BPJ)	Monitoring required and a TBEL is set in the permit.
1,1-Dichloroethylene (1,1-Dichloroethene (1,1-DCE))	950 µg/L/ A&Wedw chronic	0.8 µg/L	122	1.12 µg/L	No RP	Monitoring required for effluent characterization.
1,2-cis-Dichloroethylene (c-1,2-Dichloroethene (c-1,2-DCE))	70 µg/L/ PBC	0.5 µg/L	122	0.7 µg/L	No RP	Monitoring required for effluent characterization.
Trichloroethylene (Trichloroethene (TCE))	280 µg/L / PBC	13.14 µg/L	122	18.4 µg/L	No RP	Monitoring required for effluent characterization.
Chloroform	900 µg/L/ A&Wedw chronic	< 0.5 µg/L	122	N/A	No RP	Monitoring required for effluent characterization.
Antimony	600 µg/L/ A&Wedw chronic	No data	0	N/A	RP Indeterminate (No Data)	Monitoring is required and an assessment level is set.
Arsenic	150 µg/L/ A&Wedw chronic	8.7 µg/L	487	12.8 µg/L	No RP	Monitoring required for effluent characterization.

Parameter	Lowest Standard / Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/ Rationale (1)
Beryllium	5.3 µg/L/ A&Wedw chronic	No data	0	N/A	RP Indeterminate (No Data)	Monitoring is required and an assessment level is set.
Cadmium (2)	3.76 µg/L/ A&Wedw chronic	1 µg/L	2	7.4 µg/L	RP Indeterminate (Limited Data)	Monitoring is required and an assessment level is set.
Chromium (Total)	1,000 µg/L/ AgL	20 µg/L	17	48 µg/L	No RP	Monitoring required as an indicator parameter for Chromium VI.
Chromium VI	11 µg/L/ A&Wedw chronic	11 µg/L	53	18.7µg/L	RP Indeterminate (Based on total chromium data)	Monitoring is required and an assessment level is set.
Copper (2)	16.3 µg/L/ A&Wedw chronic	< 20 µg/L	82	N/A	RP Indeterminate (High LOQ)	Monitoring is required and an assessment level is set
Cyanide	9.7 µg/L/ A&Wedw chronic	No Data	0	N/A	RP Indeterminate (No Data)	Monitoring is required and an assessment level is set
Hardness	No applicable standard. Hardness is used to determine standards for specific metal parameters.	No Data	0	N/A	N/A	A&W standards for cadmium, chromium III, copper, lead, nickel, silver and zinc used for RP determinations were based on the average hardness value of 202 mg/L of the groundwater wells as provided in the application. Monitoring for hardness is required whenever monitoring for hardness dependent metals is required.
Hydrogen Sulfide	2 µg/L/ A&Wedw chronic	No Data	0	N/A	RP Indeterminate (No Data)	Monitoring is required for sulfides as an indicator parameter for hydrogen sulfide. If sulfides are detected, monitoring for hydrogen sulfide is required for the remainder of the permit term.
Iron	1,000 ug/L / A&Wedw chronic	No Data	0	N/A	RP Indeterminate (No Data)	Monitoring is required and an assessment level is set in the permit.
Lead (2)	5.36 µg/L / A&Wedw chronic	1 µg/L	2	13.2 µg/L	RP Indeterminate (Limited Data)	Monitoring is required and an assessment level is set in the permit.
Mercury	0.01 µg/L/ A&Wedw chronic	0.5 µg/L	2	3.7 µg/L	RP Indeterminate (Limited Data)	Monitoring is required and an assessment level is set.in the permit.
Nickel (2)	94.3 µg/L/ A&Wedw chronic	20 µg/L	2	148 µg/L	RP Indeterminate (Limited Data)	Monitoring is required and an assessment level is set.in the permit.

Parameter	Lowest Standard / Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/ Rationale (1)	
Selenium	2 µg/L/ A&Wedw chronic	1 µg/L	2	7.4 µg/L	RP Indeterminate (Limited Data)	Monitoring is required and an assessment level is set in the permit.	
Silver (2)	10.8 µg/L/ A&Wedw acute	No Data	0	N/A	RP Indeterminate (No Data)	Monitoring is required and an assessment level is set in the permit.	
Sulfides	No applicable standard	No Data	0	N/A	RP Indeterminate (No Data)	Indicator parameter for hydrogen sulfide. Monitoring required. If sulfides are detected, monitoring for hydrogen sulfide is required for the remainder of the permit term.	
Thallium	75 µg/L/ PBC	No Data	0	N/A	RP Indeterminate (No Data)	Monitoring is required and an assessment level is set in the permit.	
Zinc (2)	213 µg/L/ A&Wedw acute and chronic	20 µg/L	82	30 µg/L	No RP	Monitoring required for effluent characterization.	
Whole Effluent Toxicity (WET)	No toxicity (A.A.C. R18-11-108(A)(6))	<i>Pseudo-kirchneriella subcapitata</i> (3)	No Data	0	N/A	RP Indeterminate (No Data)	Monitoring required and an action level is set in the permit.
		<i>Pimephales promelas</i>	No Data	0	N/A	RP Indeterminate (No Data)	Monitoring required and an action level is set in the permit.
		<i>Ceriodaphnia dubia</i>	No Data	0	N/A	RP Indeterminate (No Data)	Monitoring required and an action level is set in the permit.

Footnotes:

- (1) The monitoring frequencies are as specified in the permit.
- (2) Hardness-dependent metal - the standard for these parameters are based on the average hardness value of 202 mg/L of the groundwater wells as provided in the application.
- (3) Formerly known as *Selenastrum capricornutum* or *Raphidocelis subcapitata*.

VIII. NARRATIVE WATER QUALITY STANDARDS

All narrative limitations in A.A.C. R18-11-108 that are applicable to the receiving water are included in Part I, Section E of the draft permit.

IX. MONITORING AND REPORTING REQUIREMENTS (Part II of Permit)

Section 308 of the Clean Water Act and 40 CFR Part 122.44(i) require that monitoring be included in permits to determine compliance with effluent limitations. Additionally, monitoring may be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality.

Monitoring frequencies are based on the nature and effect of the pollutant, as well as a determination of the minimum sampling necessary to adequately monitor the facility's performance. Monitoring frequencies for some parameters may be reduced in subsequent permits if all monitoring requirements have been met and the limits or ALs for those parameters have not been exceeded during the first permit term.

Discrete (i.e., grab) samples are specified in the permit for all parameters. The quality of the discharge is not expected to be highly variable.

Monitoring locations are specified in the permit (Part I.A and Part II.A.1) in order to ensure that representative samples of the influent and effluent are consistently obtained.

The requirements in the permit pertaining to Part II, Monitoring and Reporting, are included to ensure that the monitoring data submitted under this permit is accurate in accordance with 40 CFR 122.41(e). The permittee has the responsibility to determine that all data collected for purposes of this permit meet the requirements specified in this permit and is collected, analyzed, and properly reported to ADEQ.

The permit (Part II.A.3) requires the permittee to keep a Quality Assurance (QA) manual at the facility, describing sample collection and analysis processes; the required elements of the QA manual are outlined.

Reporting requirements for monitoring results are detailed in Part II, Section B of the permit, including completion and submittal of Discharge Monitoring Reports (DMRs), and AZPDES Flow Record forms. The permittee is responsible for conducting all required monitoring and reporting the results to ADEQ on DMRs or as otherwise specified in the permit.

Electronic reporting

The US EPA has published a final regulation that requires electronic reporting and sharing of Clean Water Act National Pollutant Discharge Elimination System (NPDES) program information instead of the current paper-based reporting (Federal Register, Vol. 80, No. 204, October 22, 2015). Beginning December 21, 2016 (one year after the effective date of the regulation), the Federal rule required permittees to make electronic submittals of any monitoring reports and forms called for in their permits. ADEQ has created an online portal called myDEQ that allows users to submit their discharge monitoring reports and other applicable reports required in the permit.

Requirements for retention of monitoring records are detailed in Part II.C.3 of the permit.

XI. SPECIAL CONDITIONS (Part V in Permit)

Permit Reopener

This permit may be modified based on newly available information; to add conditions or limits to address demonstrated effluent toxicity; to implement any EPA-approved new Arizona water quality standard; or to re-evaluate reasonable potential (RP), if assessment levels in this permit are exceeded [A.A.C. R18-9-B906 and 40 CFR Part 122.62 (a) and (b)].

XII. ANTIDegradation

Antidegradation rules have been established under A.A.C. R18-11-107 to ensure that existing surface water quality is maintained and protected. The discharge from the TARP water treatment plant will be to an effluent-dependent water. Except for flows resulting from rain events, the only water in the stream will be the effluent. Therefore, the discharge and the receiving water will normally be one and the same. Effluent quality limitations and monitoring requirements have been established under the proposed permit to ensure that the discharge will meet the applicable water quality standards. As long as the permittee maintains consistent compliance with these provisions, the designated uses of the receiving water will be presumed protected, and the facility will be deemed to meet currently applicable antidegradation requirements under A.A.C. R18-11-107.

XIII. STANDARD CONDITIONS

Conditions applicable to all NPDES permits in accordance with 40 CFR, Part 122 are attached as an appendix to this permit.

XIV. ADMINISTRATIVE INFORMATION

Public Notice (A.A.C. R18-9-A907)

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft AZPDES permit or other significant action with respect to an AZPDES permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper after a pre-notice review by the applicant and other affected agencies.

Public Comment Period (A.A.C. R18-9-A908)

Rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

Public Hearing (A.A.C. R18-9-A908(B))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

EPA Review (A.A.C. R18-9-A908(C))

A copy of this draft permit and any revisions made to this draft as a result of public comments received will be sent to EPA Region 9 for review. If EPA objects to a provision of the draft, ADEQ will not issue the permit until the objection is resolved.

XV. ADDITIONAL INFORMATION

Additional information relating to this proposed permit may be obtained from:

Arizona Department of Environmental Quality
Water Quality Division – Surface Water Permits Unit
Attn: Swathi Kasanneni
1110 West Washington Street
Phoenix, Arizona 85007

Or by contacting Swathi Kasanneni at (602) 771 – 4577 or by e-mail at kasanneni.swathi@azdeq.gov.

XVI. INFORMATION SOURCES

While developing effluent limitations, monitoring requirements, and special conditions for the draft permit, the following information sources were used:

1. AZPDES Permit Application Form(s) 1 and 2D, received July 16, 2021, along with supporting data, facility diagram, and maps submitted by the applicant with the application forms.
2. Supplemental information to the application received by ADEQ on July 30, 2021.
3. ADEQ Geographic Information System (GIS) Web site
4. Arizona Administrative Code (AAC) Title 18, Chapter 11, Article 1, *Water Quality Standards for Surface Waters*, adopted December 31, 2016.
5. A.A.C. Title 18, Chapter 9, Article 9. *Arizona Pollutant Discharge Elimination System* rules.
6. Code of Federal Regulations (CFR) Title 40:
 - Part 122, *EPA Administered Permit Programs: The National Pollutant Discharge Elimination System.*
 - Part 124, *Procedures for Decision Making.*
 - Part 133. *Secondary Treatment Regulation.*
 - Part 503. *Standards for the Use or Disposal of Sewage Sludge.*
7. EPA Technical Support Document for Water Quality-based Toxics Control dated March 1991.
8. *Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs*, US EPA, May 31, 1996.
9. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA /821-R-02-013).
10. U.S. EPA NPDES Permit Writers' Manual, September 2010.