

ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

This document gives pertinent information concerning the reissuance of the AZPDES permit listed below. This facility is a water supply system and is considered to be a minor facility under the AZPDES program. The discharge 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:	Central Arizona Project (CAP) Water Conservation District
Permittee's Mailing Address:	P.O. Box 43020 Phoenix, AZ 85080-3020
Facility Name:	Havasu (Mark Wilmer) Pumping Plant
Facility Address or Location:	60900 Highway 95 Parker, AZ 85334
County:	La Paz
Contact Person(s):	Aaron Welch, Environmental Supervisor
Phone/e-mail address	(623) 869-2145 / awelch@cap-az.com
AZPDES Permit Number:	AZ0023990
Inventory Number:	102979
LTF Number:	116109

II. STATUS OF PERMIT(s)	
AZPDES permit applied for:	Renewal
Date application received:	05/06/2026
Date application was determined administratively complete:	05/29/2026
Previous permit number (if different):	N/A
Previous permit expiration date:	02/13/2027

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.

III. GENERAL FACILITY INFORMATION			
Type of Facility:	Water supply system		
Facility Location Description:	The CAP Havasu (Mark Wilmer) Pumping Plant is approximately 15 miles north of Parker, Arizona, and 0.1 miles southeast of Lake Havasu.		
Proximity to Tribal Nations	The CAP Havasu (Mark Wilmer) Pumping Plant is approximately 14 miles upstream of the Colorado River Indian Tribes.		
Discharge Flow:	Approximately 0.122 million gallons per day (MGD)		
Applicable Treatment Processes:	Intake water passes through a 1/8" strainer filtration. The majority of this water is used for HVAC cooling. The remaining intake water (approximately 1,800 gallons) passes through a 50-micron Filtomat filter to further remove particulates. After this second filtering, the water is fed to a potable water filtration system that provides potable water to the facility. The water is subsequently chlorinated to one (1) part per million (ppm) using sodium hypochlorite. The facility also injects Earthtec QZ downstream of the strainer to control the interference of quagga mussels with operational equipment.		
Nature of facility discharge:	The following table summarizes the daily maximum discharge flow rate for each contributor to the discharge.		
	Contributor	Flow Rate	Description
	Service/seal/strainer water	0.0015 MGD	Strainer backwash water
	Groundwater infiltration	0.003 MGD	Water infiltrating into subterranean parts of the facility
	Seal leakage	0.0577 MGD	Cooling water leakage through seals during pump operations
	Mud valve leakage	0.0564 MGD	Water leaking to the sump directly from the receiving water
	Earthtec QZ	0.0036 MGD	Treatment to control or eliminate interference from quagga mussels
Average flow per discharge:	Approximately 0.115 MGD		
Continuous or intermittent discharge:	Intermittent		
Discharge pattern summary:	Discharge from the CAP Havasu (Mark Wilmer) Pumping Plant occurs only when the pumps are off. No discharge occurs while water is actively pumped from the Colorado River (Lake Havasu) into the canal.		
The CAP Havasu (Mark Wilmer) Pumping Plant draws and transfers water from the Colorado River (Lake Havasu) to the CAP canal system for use in Maricopa, Pinal, and Pima Counties. The plant uses six 60,000-horsepower centrifugal pumps to draw approximately 4.89 billion gallons of water per year.			

Several smaller pumps draw water from the facility's intake. The majority of this water is used for HVAC system cooling. The HVAC cooling water is recycled through the cooling loop and is not discharged to Lake Havasu. The remaining intake water is used for potable and service water systems. Potable water is ultimately discharged to the facility's wastewater treatment system before it is discharged to a leach field.

The two-stage sump is the source of regulated discharge from the Havasu Pumping Plant to Lake Havasu and receives wastewater from strainer backwash, groundwater infiltration, seal leakage, and mud valve leakage. Bearing systems for the pumps are lubricated with petroleum oil. Some of this oil leaks into the bearing cooling water and is discharged into the sump. The first chamber of the sump functions as an oil-water separator and drains to the second discharging chamber via an underflow dam. An automatic oil removal system recovers oil from the first chamber. The removed oil is sent to CAP's Phoenix headquarters for recycling.

IV. RECEIVING WATER

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.

Receiving Water (Federal):	The Water of the U.S. Protected Surface Water (WOTUS PSW) for the CAP Havasu (Mark Wilmer) Pumping Plant is Lake Havasu. This is a surface water listed in A.A.C. R18-11 Appendix B.
River Basin:	Colorado—Lower Gila River Basin
Outfall Location(s):	Outfall 001: Township 11N, Range 18W, Section 23 Latitude 34° 17' 19.4", Longitude 114° 6' 11.8" Coordinates in Decimal Degrees: [34.2887, -114.1033]
Designated uses for the receiving water listed above:	Deep Lake Aquatic and Wildlife warm water (A&Ww) Full Body Contact (FBC) Fish Consumption (FC) Agricultural Irrigation (Agl) Agricultural Livestock watering (AgL) Domestic Water Supply (DWS)
Is the receiving water on the 303(d) list?	Yes, the receiving water is listed as impaired for selenium. There is no Total Maximum Daily Load (TMDL) for selenium in Lake Havasu.

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.

In addition to the above, the Colorado River has a salinity standard. A.A.C. R18-11-110 incorporates by reference the plan of implementation contained in the "2014 Review, Water Quality Standards for Salinity, Colorado River System," approved October 2014. The plan of implementation is a basin-wide approach to salinity control developed by the Colorado River Basin Salinity Control Forum. Dischargers to the Colorado River and its tributaries upstream of the Imperial Dam must meet the plan of implementation requirements.

V. DESCRIPTION OF DISCHARGE

Because the facility is in operation and discharges have occurred, discharge monitoring data are available. The following is the measured discharge quality reported in the application.

Parameters	Units	Maximum Daily Discharge Concentration
Iron	mg/L	0.19
Mercury	µg/L	<0.2
Oil & Grease	mg/L	<5
pH	S.U.	9
Selenium	µg/L	2
Total Dissolved Solids (TDS)	mg/L	702
Total Suspended Solids (TSS)	mg/L	9

VI. STATUS OF COMPLIANCE WITH THE EXISTING AZPDES PERMIT

Date of Most Recent Inspection:	12/02/2024; no potential violations were noted as a result of this inspection.
Discharge Monitoring Reports (DMR) Reviewed:	03/2022 through 05/2026
Lab Reports Reviewed:	05/2022 through 02/2026
DMR Exceedances:	None
Notice(s) of Violation (NOV) Issued:	None
NOVs Closed:	N/A
Formal Enforcement Action(s):	None

VII. PROPOSED PERMIT CHANGES

The following table lists the major changes from the previous permit in this permit.

Parameter	Existing Permit	Proposed Permit	Reason for Change
Noncompliance Reporting Hotline	(602) 771-2330	Noncompliance resulting in imminent threat to human health or the environment must be reported to (602) 771-2330, while all other noncompliance must be reported to (602) 771-1440.	Routing emergency calls to the emergency hotline, but all other calls to a non-emergency number.
Reporting Location for Discharge Characterization Monitoring	Submit results through DMRs	Report results on the DC Monitoring Data Sheet Excel form provided by ADEQ and submit annually to azpdes_data@azdeq.gov by January 28 th following each annual reporting period. See Part I.D.2 and Part II.B.3 of permit. Laboratory reports for DC monitoring shall be submitted through myDEQ with the last DMR of the calendar year. See Part II.B.3.b. of the permit.	ADEQ is implementing this new procedure to facilitate data analysis by ADEQ and reporting by permittees. Outcomes include expedited data processing and improved data quality review, per ADEQ Surface Water Protection Quality Assurance Program Plan (2022).
Sufficiently Sensitive Test Methods and Limit of Quantitation (LOQ) Reporting Requirements	Limited explanation of analytical requirements for LOQ.	Analytical test sensitivity requirements are specified in the footnotes of Part I Tables 1-4 of the permit and associated definitions in Appendix A. Part B. The requirement to use sufficiently sensitive test methods is specified in Part II.A.5.	The Limit of Quantitation (LOQ) must be low enough to allow comparison of the results to the applicable water quality standards (WQS) to be protective of the receiving water designated uses. New language clarifies the requirement that parameters must be analyzed using sufficiently sensitive test methods in accordance with 40 CFR 136.1(c).

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Parameter	Existing Permit	Proposed Permit	Reason for Change
Use of Metal Translators to Calculate Total Recoverable Permit Limits from Dissolved Criteria (Applicable to Cadmium, Chromium VI, Copper, Lead, Mercury, Nickel, Silver, and Zinc)	No metal translators were used. Assumed the ratio of dissolved to total recoverable is 1 to 1 for all metals with water quality criteria expressed as dissolved.	WQBELs and ALs were converted from dissolved to total recoverable using the process from the EPA's <i>The Metals Translator: Guidance for Calculating A Total Recoverable Permit Limit from A Dissolved Criterion</i> .	New procedure for ADEQ to incorporate default metal translators when calculating total recoverable WQBELs and ALs from dissolved criteria.
Whole Effluent Toxicity Data Evaluation and Reporting	Calculation of the no observed effect concentration (NODC) and the 25% inhibition effect concentration (IC25). Report results on the DMR as Pass (0)/Fail (1) for acute tests and 100/NODC result in toxicity units (TUC) for chronic tests. An exceedance was any one test result greater than 1.6 TUC or any calculated monthly median value greater than 1.0 TUC or a Fail.	Pass and Fail results are declared by comparing percent effect (PE) to the regulatory management decision (RMD) threshold established for the test. For acute tests, report results as Pass (0)/Fail (1) on the DMR. For chronic tests, report Pass (0)/Fail (1) and report the PE on the DMR.	WET test results must now be analyzed and reported using the Test for Significant Toxicity (TST). This statistical approach detailed in EPA's 2010 "National Pollutant Discharge Elimination System Test of Significant Toxicity Technical Document" (EPA-833-R-10-004) encourages the generation of higher quality WET data through increased within test replicates or improved method precision. The TST ultimately minimizes false negative and positive results leading to more reliable data for regulatory decision-making.
WET tests with a result of Fail	WET lab reports and any required additional attachments shall be submitted to ADEQ using the myDEQ electronic portal by the 28th day of the month following the end of the WET monitoring period, or upon request.	Certified laboratory reports with a Fail test result for either an Action Level or Limit shall be emailed to AZPDES@azdeq.gov within five days of receipt.	Prompt notification of ADEQ is crucial for protecting aquatic and wildlife when toxicity is detected during action level or limitations monitoring. This new requirement for notification ensures that all necessary follow-up testing is conducted as required by the permit.

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Parameter	Existing Permit	Proposed Permit	Reason for Change
TRE Work Plan	TRE plan developed following detection of discharge toxicity	TRE Work Plan submitted to AZPDES@azdeq.gov within 90 days of permit effective date. This is required for all permittees regardless of whether discharge toxicity has been detected or not. Use the template supplied by ADEQ (See Part IV of the permit).	Permittees may be required to execute a Toxicity Reduction Evaluation (TRE) Plan to address discharge toxicity issues during the permit term. This new requirement added to all AZPDES permits with WET testing requirements ensures permittees proactively develop a systematic approach to identify and eliminate the cause of toxicity before toxicity is detected. This enables a timely response to protect aquatic and wildlife.
Suspended Sediment Concentration (SSC)	Monitoring not required.	Monitoring required for the discharge and the receiving water, downstream of the discharge.	ADEQ is requiring monitoring of the discharge and downstream receiving water to assess compliance with the numeric standard listed in R18-11-109(D).
Temperature	Monitoring required for the discharge or receiving water.	Monitoring required for the discharge and the receiving water, both upstream and downstream of the discharge.	ADEQ is requiring monitoring of the discharge, the upstream receiving water upstream and downstream receiving water to assess compliance with the numeric standard listed in R18-11-109(C).
Narrative Surface Water Quality Standards	Narrative surface water quality standards applicable to the receiving water listed in Part I.E of the permit.	Other limitations for the discharge listed in Part I.E of the permit to ensure the discharge is protective of the narrative surface water quality standards of the receiving water.	ADEQ is clarifying all narrative permit requirements are applicable to the discharge rather than the "end result" in the receiving water in accordance with <i>City & County of San Francisco v. EPA</i> .
Arsenic, Copper, and Upstream Receiving Water Hardness (CaCO ₃)	Discharge characterization testing	Limited See Table 1 of permit	Data submitted indicated reasonable potential (RP) for an exceedance of a standard. The upstream receiving water must be tested for hardness at the same time the permittee samples for hardness dependent metals.

VII. PROPOSED PERMIT CHANGES

The following table lists the major changes from the previous permit in this permit.

Parameter	Existing Permit	Proposed Permit	Reason for Change
Total Dissolved Solids (TDS)	Assessment level	Limited See Table 1 of permit	Limit required based on re-evaluation of the "2014 Review, Water Quality Standards for Salinity, Colorado River System" developed by the Colorado River Basin Salinity Control Forum.
Iron	Limited	Limit removed	Data submitted indicated no reasonable potential (RP) for an exceedance of a standard.
Ammonia and Ammonia Impact Ratio (AIR)	No monitoring required	Monitoring with assessment levels using an Ammonia Impact Ratio (AIR). See Table 2 of permit	ADEQ now requires all minor industrial facilities to monitor for all general chemistry parameters, including ammonia, to appropriately characterize the discharge and assess compliance with the ammonia water quality standards. The AIR is a trackable numeric value. See Section VII for details.
Biochemical Oxygen Demand (BOD-5), Chemical Oxygen Demand (COD), and Total Organic Carbon (TOC)	No monitoring required	Discharge characterization testing See Table 4.a of permit	The permittee must report quantitative data for BOD-5, COD, and TOC on permit renewal applications pursuant to 40 CFR 122.21(g)(7)(iii). ADEQ included discharge characterization testing requirements at the permittee's request to ensure this requirement is fulfilled upon permit renewal.
Discharge Dissolved Oxygen, Downstream Receiving Water Dissolved Oxygen, Nitrate/Nitrite (as N), Total Kjeldahl Nitrogen (TKN), and Phosphorus	No monitoring required	Discharge characterization testing See Table 4.a of permit	ADEQ now requires all minor industrial facilities to monitor for all general chemistry and microbiology parameters in Table 4.a to characterize the discharge. This update aligns the permit with standard monitoring requirements applied to minor facilities of similar size and discharge type within the state.

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Parameter	Existing Permit	Proposed Permit	Reason for Change
Asbestos	No monitoring required	Discharge characterization testing See Table 4.b of permit	ADEQ requires discharge characterization testing for asbestos if the receiving water has the DWS designated use. This monitoring-only requirement is necessary to evaluate the discharge and ensure protection of the asbestos water quality standard.
Barium, Boron, Fluoride, Hydrogen Sulfide, Manganese, Sulfides, Uranium, and Cyanide	No monitoring required	Discharge characterization testing See Table 4.b of permit	ADEQ now requires all minor industrial facilities to monitor for all selected metals and trace substances in Table 4.b to characterize the discharge. This update aligns the permit with standard monitoring requirements applied to minor facilities of similar size and discharge type within the state.
Total Dissolved Solids (TDS) Sample Type and Monitoring Frequency	Assessment levels: Discrete; 1x/6 months Discharge characterization: 24-hour composite; 1x/year in years 2023, 2024, and 2025 of permit term	Limits and discharge characterization: Discrete; 1x/quarter See Tables 1 and 4.a of permit	Sample type and monitoring frequency required based on reevaluation of the "2014 Review, Water Quality Standards for Salinity, Colorado River System" developed by the Colorado River Basin Salinity Control Forum.
Oil and Grease Limits Monitoring Frequency	1x/3 Months	1x/Year See Table 1 of permit	Monitoring frequency is based on tiers established for design flow to (1) obtain sufficient data to protect surface water quality and (2) set monitoring requirements consistently. For this facility, monitoring frequency is based on a discharge flow of 0.122 MGD. The previous permit was inconsistent with this guidance.

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The following table lists the major changes from the previous permit in this permit.

Parameter	Existing Permit	Proposed Permit	Reason for Change
Total Suspended Solids Limits Monitoring Frequency	1x/3 Months	1x/Month See Table 1 of permit	Monitoring frequency is based on tiers established for design flow to (1) obtain sufficient data to protect surface water quality and (2) set monitoring requirements consistently. For this facility, monitoring frequency is based on a discharge flow of 0.122 MGD. The previous permit was inconsistent with this guidance.
WET Monitoring Frequency	1x/year in year 2025 of permit term	1x/year in years 2027, 2028, 2029, and 2030 of permit term See Tables 3 and 4.b of permit	A minimum of four results for each WET test type are required to determine RP using the TST approach.
WET Test Type	Chronic only	Chronic and acute	The CAP Havasu (Mark Wilmer) Pumping Plant is considered an intermittent discharger. ADEQ includes the option of acute toxicity testing to ensure the permittee can fulfill WET testing requirements if the facility does not discharge for the seven consecutive days required for chronic toxicity testing.

Anti-backsliding considerations — “Anti-backsliding” refers to statutory (Section 402(o) of the Clean Water Act) and regulatory (40 CFR 122.44(l)) requirements that prohibit the renewal, reissuance, or modification of an existing NPDES permit that contains discharge limits, permit conditions, or standards that are less stringent than those established in the previous permit. The rules and statutes do identify exceptions to these circumstances where backsliding is acceptable. This permit has been reviewed and drafted with consideration of anti-backsliding concerns.

Limits for the following parameter have been removed from the permit because evaluation of current data allows the conclusion that no reasonable potential (RP) for an exceedance of a standard exists:

- Iron

This is considered allowable backsliding under 303(d)(4). The discharge limitations in the current permit for this parameter were based on state standards, the respective receiving waters are in attainment for these parameters, and the revisions are consistent with antidegradation requirements. See Section XII for information regarding antidegradation requirements.

Limits are retained in the permit for parameters where reasonable potential (RP) for an exceedance of a standard continues to exist or is indeterminate. In these cases, limits will be recalculated using the most current Arizona Water Quality Standards (WQS). If less stringent limits result due to a change in the WQS then backsliding is allowed in accordance with 303(d)(4) if the new limits are consistent with antidegradation requirements and the receiving water is in attainment of the new standard; see Section XII for information regarding antidegradation requirements.

No limits are less stringent due to a change in the WQS in this permit.

VIII. DETERMINATION OF DISCHARGE LIMITATIONS, OTHER LIMITATIONS, and ASSESSMENT LEVELS

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

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

The regulations found at 40 CFR Part 125 authorize the use of technology-based treatment requirements based on best professional judgment (BPJ) for discharges from facilities for which EPA-promulgated effluent limitation guidelines (ELGs) are unavailable or inapplicable. Total suspended solids and oil & grease were initially included in the existing permit based on BPJ. The Havasu Pumping Plant is not an industry subject to EPA-promulgated ELGs. Pursuant to 40 CFR § 122.44(l)(1), the limitations for these parameters will be maintained in the proposed permit.

Water Quality-Based Effluent Limitations:

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 discharge at a level that could potentially cause any applicable numeric water quality standard to be exceeded. Numeric water quality standards are outlined in A.A.C. R18-11-109 and Appendix A. RP refers to an analysis, 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.

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 average monthly limit (AML) and maximum daily limit (MDL) necessary to protect all uses. This methodology is described in Chapter 5 of the *TSD*, and considers water quality criteria, discharge variability, and the number of observations taken to determine compliance with prescribed limits. 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 Sections 5.4.4 and 5.5.3 of the *TSD*.

Mixing Zone

The limits in this permit were determined without the use of a mixing zone. Arizona state water quality rules require that water quality standards be achieved without mixing zones unless the permittee applies for and is approved for a mixing zone. Since a mixing zone was not applied for or granted, all water quality criteria are applied at end-of-pipe.

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 permit should future monitoring data indicate water quality standards are being exceeded.

The requirement to monitor for these parameters is included in the permit according to A.A.C. R18-11-104(C) and Appendix A. ALs listed for each parameter were calculated in the same manner that a limit would have been calculated (see Water Quality-Based Effluent Limitations above).

Ammonia water quality criteria vary based on the upstream receiving water pH and temperature at the time of discharge sampling. As a result, no single ammonia concentration can be included as a permit AL. To overcome this, an Ammonia Impact Ratio (AIR) of 1 for the monthly average and a value of 2 for the maximum daily limits have been established as the permit ALs for ammonia. The AIR is calculated by dividing the ammonia concentration in the discharge by the applicable ammonia standard based on the upstream receiving water pH and temperature at the time of sampling. AIR values will be reported on DMRs and on the Ammonia Data Log which is included as Appendix C in the permit.

Hardness

The permittee is required to sample hardness as CaCO_3 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 290 mg/L (the average hardness of the receiving stream) 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 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 acute toxicity shall be conducted using the following two surrogate species:

- *Ceriodaphnia dubia* (water flea) – for evaluating toxicity to invertebrates
- *Pimephales promelas* (fathead minnow) – for evaluating toxicity to vertebrates

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 requires the permittee to analyze WET test data using the Test of Significant Toxicity (TST) statistical approach. This statistical approach is described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010; TST Implementation Document) and *National Pollutant Discharge Elimination System Test of Significant Toxicity Technical Document* (EPA 833-R-10-004, 2010; TST Technical Document). This statistical approach supports important choices made within a toxicity laboratory which favor quality data and ADEQ's intended levels for statistical power when true toxicity is statistically determined to be unacceptably high or acceptably low. For both acute and chronic WET test methods, the low-risk Regulatory Management Decision (RMD) threshold is set at a 10 percent mean effect at the Instream-Waste Concentration (IWC).

For mean effect levels greater than 10 percent but less than the unacceptable toxicity RMD threshold (20 percent for acute and 25 percent for chronic WET tests), the TST approach will declare the IWC non-toxic depending on within-test variability. The TST maintains ADEQ's desired low false positive rate for WET methods—the probability of declaring toxicity when true toxicity is acceptably low $\leq 5\%$ —when quality toxicity laboratories conduct toxicity tests (EPA 833-R-10-004, 2010).

ADEQ analyzed the available data and determined that the discharge does not have reasonable potential. This is because no toxicity test result is Fail (1) indicating unacceptable toxicity is not present in the discharge and no associated PE (Percent Effect) value is ≥ 10 indicating toxicity at a level higher than acceptable is not present in the discharge (see Table 1 of this fact sheet and section 1.4 and Appendix E in EPA's TST Technical Document). Thus, no toxicity WQBELs are required for the permitted discharge (40 CFR § 122.44(d)(1)). However, ADEQ has retained the requirement for monitoring and reporting toxicity with action levels, so that discharge toxicity can be assessed in relation to CWA requirements for the permitted discharge (see Part I.C of permit).

Any failed test during a monitoring period where discharge occurred will trigger follow-up testing to determine if discharge 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) based on a TRE Work Plan submitted within 90 days of the permit effective date and possibly a Toxicity Identification Evaluation (TIE) to identify the source of toxicity and decrease toxicity. The conditions described in this paragraph are required to identify and rectify sources of toxicity in discharges [A.A.C. R18-11-108(A)(5)]. A reopener clause is included in accordance with 40 CFR Parts 122 and 124 and A.A.C. R18-9-B906.

The 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 permit when testing of those parameters is required to aid in determining the cause of toxicity if it is detected. Additional procedural requirements for the WET test are included in the 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 permit requires WET test results to be reported on discharge monitoring reports (DMRs). WET laboratory reports for all WET tests performed must be attached to the corresponding DMR. When a WET limit is exceeded and the facility discharged during the monitoring period when the limit exceedance occurred, the result is subject to the Twenty-four Hour Reporting of Noncompliance requirements, per Part II.C. All action level and limit exceedance results and lab reports shall be emailed to AZPDES@azdeq.gov within five days.

Discharge Characterization (DC)

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 through 4.b, *Discharge Characterization Testing*, as follows:

- Table 4.a.—General Chemistry and Microbiology: ammonia, BOD-5, *E. coli*, dissolved oxygen, total Kjeldahl nitrogen (TKN), nitrate/nitrite, oil and grease, pH, phosphorus, temperature, total dissolved solids (TDS), and total suspended solids (TSS)
- 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 4.b., provided the specified sample types are the same. In the event the facility does not discharge to a Protected Surface Water during the life of the permit, DC monitoring of representative samples of the discharge is still required.

The purpose of DC monitoring is to characterize the discharge 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)). DC 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

Table 1 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*.

Table 1. Permit Limitations and Monitoring Requirements

Parameter	No. of Samples	Maximum Reported Concentration (1)	RP Multiplier (2)	Critical Concentration (Calculated)	Most Stringent Criterion	Most Stringent Criterion Basis (3)	Does Reasonable Potential Exist?	Proposed Monitoring Requirement/Rationale (4)
Flow	---	---	---	---	---	---	---	Discharge flow is to be monitored on a continual basis using a flow meter.
Biological Oxygen Demand (BOD)	0	No data	N/A	N/A	N/A	N/A	N/A	Monitoring is required for discharge characterization.
Chemical Oxygen Demand (COD)	0	No data	N/A	N/A	N/A	N/A	N/A	Monitoring is required with a discrete sample for discharge characterization.
Total Organic Carbon (TOC)	0	No data	N/A	N/A	N/A	N/A	N/A	Monitoring is required with a discrete sample for discharge characterization.
Total Suspended Solids (TSS)	12	9 mg/L	N/A	N/A	20 mg/L monthly average 40 mg/L daily maximum	Anti-backsliding 40 CFR 122.44(l)	RP Indeterminate	Monitoring is required, and a limit remains in the permit.
Chlorine, Total Residual (TRC)	0	No data	N/A	N/A	11 µg/L	A&Ww chronic	N/A	Monitoring is not required because no chlorinated water is discharged to Lake Havasu.
Dissolved Oxygen	0	No data	N/A	N/A	The percent saturation of dissolved oxygen is equal to or greater than 90 percent, or single sample minimum concentration of 6 mg/L	A&Ww	RP Indeterminate (No data)	Monitoring is required for the discharge and the downstream receiving water with discrete samples for discharge characterization.
<i>E. coli</i>	0	No data	N/A	N/A	30-day geometric mean: 126 cfu /100 mL (4 sample minimum) Statistical threshold value: 410 cfu /100 mL	FBC	N/A	Monitoring is required with a discrete sample for discharge characterization.
pH	208	Minimum: 7 Maximum: 9	N/A	N/A	Minimum: 6.5 Maximum: 9.0 A.A.C. R18-11-109(B)	A&Ww and FBC	Limit is always included.	pH is to be monitored using a discrete sample of the discharge and a WQBEL is set. 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. pH sampling must also coincide with ammonia sampling when required (5).

Table 1. Permit Limitations and Monitoring Requirements

Parameter	No. of Samples	Maximum Reported Concentration (1)	RP Multiplier (2)	Critical Concentration (Calculated)	Most Stringent Criterion	Most Stringent Criterion Basis (3)	Does Reasonable Potential Exist?	Proposed Monitoring Requirement/Rationale (4)
Temperature	208	27 °C	N/A	N/A	R18-11-109C the discharge shall not cause an increase in the ambient water temperature. no more than 3.0 °C	A&Ww	N/A	Temperature of the discharge and the receiving water, both upstream and downstream of the discharge, is to be monitored for discharge characterization by discrete sample. 40 CFR Part 136 specifies that discrete samples must be collected for temperature. Temperature sampling must also coincide with ammonia sampling when required (5).
Suspended Sediment Concentration	0	No data	N/A	N/A	80 mg/L (6)	A&Ww	RP Indeterminate (No data)	Monitoring of the discharge and downstream receiving water is required for discharge characterization. Samples shall not be collected within during or within 48 hours after a local storm event.
Total Dissolved Solids (TDS)	8	702 mg/L	N/A	N/A	723 mg/L	Colorado River Basin Salinity Control Forum requirements apply to dischargers to the Colorado River and its tributaries above Imperial Dam.	N/A	Monitoring is required, and a limit is set.
Ammonia	0	No data	N/A	N/A	Standard varies with temperature and pH	A&Ww	RP Indeterminate (No data) (7)	Ammonia is to be monitored by discrete sample, and an assessment level in the form of an ammonia impact ratio (AIR) of 1 is set in the permit (5). An ammonia data log with concurrent pH and temperature monitoring is also required. One sample must coincide with WET sampling to aid in the determination of the cause of toxicity, if toxicity is detected.
Nutrients: Total Nitrogen Total Phosphorus	0	N/A	N/A	N/A	No applicable standards	N/A	N/A	Monitoring required for discharge characterization.
Oil & Grease	12	<5 mg/L	N/A	N/A	BPJ technology-based level of 10 mg/L monthly average and 12 mg/L daily maximum	Anti-backsliding 40 CFR 122.44(l)	RP Indeterminate (7)	Monitoring is required, and a limit remains in the permit.

Table 1. Permit Limitations and Monitoring Requirements

Parameter	No. of Samples	Maximum Reported Concentration (1)	RP Multiplier (2)	Critical Concentration (Calculated)	Most Stringent Criterion	Most Stringent Criterion Basis (3)	Does Reasonable Potential Exist?	Proposed Monitoring Requirement/Rationale (4)
Hardness	1	290 mg/L	N/A	N/A	No applicable standard. Hardness is used to determine standards for specific metal parameters.	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 receiving water hardness value of 290 mg/L. Monitoring for hardness is required whenever monitoring for hardness dependent metals is required.
Antimony	3	<0.5 µg/L	5.62	N/A	6 µg/L	DWS	No RP	Monitoring is required for discharge characterization.
Arsenic	3	2.2 µg/L	5.62	12.37 µg/L	10 µg/L	DWS	RP Exists	Monitoring is required, and a WQBEL is set in the permit.
Asbestos	0	No data	N/A	N/A	7 MF/L	DWS	RP Indeterminate (No data)	Monitoring is required for discharge characterization.
Barium	0	No data	N/A	N/A	2,000 µg/L	DWS	RP Indeterminate (No data)	Monitoring is required for discharge characterization.
Boron	0	No data	N/A	N/A	1,000 µg/L	AgI	RP Indeterminate (No data)	Monitoring is required for discharge characterization.
Beryllium	3	<2 µg/L	5.62	N/A	4 µg/L	DWS	No RP	Monitoring is required for discharge characterization.
Cadmium (8)	3	<0.1 µg/L	5.62	N/A	4.91 µg/L	A&Ww chronic	No RP	Monitoring is required for discharge characterization.
Chromium VI	0	No data	N/A	N/A	11 µg/L	A&Ww chronic	No RP (Based on total chromium data)	Monitoring is required for discharge characterization if total chromium exceeds 8 µg/L.
Chromium, Total	3	<5 µg/L	5.62	N/A	100 µg/L	DWS	No RP	Monitoring is required as an indicator parameter for Chromium VI.
Copper (8)	3	20 µg/L	5.62	112.45 µg/L	22.24 µg/L	A&Ww chronic	RP Exists	Monitoring is required, and a WQBEL is set in the permit.
Cyanide	0	No data	N/A	N/A	9.7 µg/L	A&Ww chronic	RP Indeterminate (No data)	Monitoring is required for discharge characterization.
Hydrogen sulfide	0	No data	N/A	N/A	2 µg/L	A&Ww chronic	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	10	190 µg/L	3.22	612.54 µg/L	1000 µg/L	A&Ww chronic	No	Monitoring is required for discharge characterization.
Lead (8)	3	<1 µg/L	5.62	N/A	7.85 µg/L	A&Ww chronic	No	Monitoring is required for discharge characterization.

Table 1. Permit Limitations and Monitoring Requirements

Parameter	No. of Samples	Maximum Reported Concentration (1)	RP Multiplier (2)	Critical Concentration (Calculated)	Most Stringent Criterion	Most Stringent Criterion Basis (3)	Does Reasonable Potential Exist?	Proposed Monitoring Requirement/Rationale (4)
Manganese	0	No data	N/A	N/A	980 µg/L	DWS	RP Indeterminate (No data)	Monitoring is required for discharge characterization.
Mercury	10	<0.2 µg/L	3.02	N/A	0.01 µg/L	A&Ww chronic	RP Indeterminate (High LOQ) (9)	Monitoring is required, and an assessment level remains in the permit.
Nickel (8)	3	<20 µg/L	5.62	N/A	128.01 µg/L	A&Ww chronic	No	Monitoring is required for discharge characterization.
Selenium	10	2 µg/L	1.67	3.34 µg/L	2 µg/L	A&Ww chronic	RP Exists	Monitoring is required, and a WQBEL remains in the permit.
Silver (8)	3	<0.1 µg/L	5.62	N/A	20.08 µg/L	A&Ww acute	No	Monitoring is required for discharge characterization.
Sulfides	0	No data	N/A	N/A	No applicable standard	N/A	N/A	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	3	<0.5 µg/L	5.62	N/A	2 µg/L	DWS	No	Monitoring is required for discharge characterization.
Uranium	0	No data	N/A	N/A	30 µg/L	DWS	RP Indeterminate (No data)	Monitoring is required for discharge characterization.
Zinc (8)	3	<20 µg/L	5.62	N/A	288.83 µg/L	A&Ww chronic	No	Monitoring is required for discharge characterization.
Whole Effluent Toxicity (WET):								
<i>Ceriodaphnia dubia</i> (Water flea)	1	-11.43 PE	N/A	N/A	No toxicity (A.A.C. R18-11-108(A) (6))	A&Ww	RP Indeterminate (7)	Monitoring is required, and an action level remains in the permit.
<i>Pimephales promelas</i> (Fathead minnow)	1	-6.32 PE	N/A	N/A	No toxicity (A.A.C. R18-11-108(A) (6))	A&Ww	RP Indeterminate (7)	Monitoring is required, and an action level remains in the permit.
<i>Pseudo-kirchneriella subcapitata</i> (Green Algae) (10)	1	-14.47 PE	N/A	N/A	No toxicity (A.A.C. R18-11-108(A) (6))	A&Ww	RP Indeterminate (7)	Monitoring is required, and an action level remains in the permit.

Footnotes:

- Maximum quantified result or maximum reporting limit, whichever is highest. A maximum reporting limit is indicated with less than "<" sign.
- Reasonable potential (RP) multiplier is a factor applied to the limited dataset reported to ADEQ by the permittee over the current permit term. This factor is a function of the sample count and coefficient of variation for the dataset that is used to approximate the 99th percentile value at a 99% confidence level based on a lognormal distribution.
- This refers to the applicable designated use that determines the lowest (most protective) water quality standard for each pollutant. Designated use abbreviations are defined in A.A.C. R18-11-101.
- The monitoring frequencies are as specified in the permit.
- An AIR will be calculated by dividing discharge ammonia concentration by the applicable standard using the receiving water pH and temperature.

6. The SSC standard is expressed as a median value determined from a minimum of four samples collected at least seven days apart. The results of a suspended sediment concentration sample collected during or within 48 hours after a local storm event shall not be used to determine the median.
 7. Monitoring with ALs or Action Levels always required for WWTPs for these parameters unless RP exists and limits are set.
 8. Hardness-dependent metal - the standard for this parameter is based on the average hardness value of the discharge or receiving water as indicated above.
 9. All analytical results were non-detect; however, the limit of quantitation (LOQ) exceeded the lowest applicable WQS for the receiving water designated uses.
 10. Formerly known as *Selenastrum capricornutum* or *Raphidocelis subcapitata*
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VIII. NARRATIVE WATER QUALITY STANDARDS

Narrative standards applicable to the receiving water are listed in A.A.C. R18-11-108. Part I of the permit contains discharge limitations, other limitations, and monitoring requirements to ensure the discharge is protective of the receiving water, including the narrative standards.

The applicable narrative standards follow below in italics. How ADEQ implements the standard in the permit follows the standard.

A surface water shall not contain pollutants in amounts or combinations that:

Settle to form bottom deposits that inhibit or prohibit the habitation, growth, or propagation of aquatic life;

- The permit requires monitoring for Suspended Sediment Concentration (SSC) and monitoring with a discharge limitation for Total Suspended Solids (TSS). The discharge limit for TSS ensures the discharge does not cause bottom deposits. ADEQ will continue to analyze SSC results and include a discharge limitation for SSC where reasonable potential exists.

Cause objectionable odor in the area in which the surface water is located; and Cause off-taste or odor in drinking water

- The permit contains a narrative requirement that the discharge must not contain objectionable odor.

Cause off-flavor in aquatic organisms; and Are toxic to humans, animals, plants, or other organisms;

- This permit contains requirements for Whole Effluent Toxicity (WET) Testing to ensure the discharge is free from toxicity. The permit also contains discharge characterization monitoring to assess the quality of the discharge and determine what parameters of concern are present in the discharge and at what levels. The permit includes applicable technology-based limitations (TBELs) and water quality based effluent limitations (WQBELs), where reasonable potential exists, to ensure the discharge is non-toxic and safe for aquatic organisms, wildlife, and human health.

Cause the growth of algae or aquatic plants that inhibit or prohibit the habitation, growth, or propagation of other aquatic life or that impair recreational uses;

- The permit contains monitoring requirements for ammonia, nitrate-nitrite, Total Kjeldahl Nitrogen (TKN), and total phosphorus to assess the amount of nutrients present in the discharge. Where reasonable potential exists for these parameters, ADEQ includes discharge limitations for these parameters to prevent the growth of algae and other aquatic plants that may inhibit or prohibit the habitation, growth, or propagation of other aquatic life or impair recreational uses.

Change the color of the surface water from natural background levels of color.

- The permit contains a narrative requirement that the discharge must not contain unnatural color.

A surface water shall not contain oil, grease, or any other pollutant that floats as debris, foam, or scum; or that causes a film or iridescent appearance on the surface of the water; or that causes a deposit on a shoreline, bank, or aquatic vegetation.

- The permit contains a narrative requirement that the discharge shall be free from oil, grease and other pollutants that float as debris, foam, or scum; and a film or iridescent appearance.

A surface water shall not contain a discharge of suspended solids in quantities or concentrations that interfere with the treatment processes at the nearest downstream potable water treatment plant or substantially increase the cost of handling solids produced at the nearest downstream potable water treatment plant.

- The permit contains a monitoring with a discharge limitation for Total Suspended Solids (TSS). The discharge limit for TSS will ensure the discharge does not contain suspended solids in quantities or concentrations that would interfere with or increase the cost to the nearest downstream potable water treatment plant.

A surface water shall not contain solid waste such as refuse, rubbish, demolition or construction debris, trash, garbage, motor vehicles, appliances, or tires.

- The permit contains a narrative requirement that the discharge must not contain refuse, rubbish, demolition or construction debris, trash, or garbage. Motor vehicles, appliances, or tires are not expected to be present in the discharge.

A wadeable, perennial stream shall support and maintain a community of organisms having a taxa richness, species composition, tolerance, and functional organization comparable to that of a stream with reference conditions in Arizona.

- This permit contains requirements for Whole Effluent Toxicity (WET) Testing to ensure the discharge is free from toxicity. The permit also contains discharge characterization monitoring to assess the quality of the discharge and determine what parameters of concern are present in the discharge and at what levels. The permit includes applicable technology-based limitations (TBELs) and water quality based effluent limitations (WQBELs), where reasonable potential exists, to ensure the discharge is non-toxic and safe for aquatic organisms and wildlife.

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 discharge limitations. Additionally, monitoring may be required to gather data for future discharge limitations or to monitor discharge 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.

For the purposes of this permit, a "24-hour composite" sample has been defined as a flow-proportioned mixture of not less than three discrete samples (aliquots) obtained at equal time intervals over a 24-hour period. The volume of each aliquot shall be directly proportional to the discharge flow rate at the time of sampling.

These criteria for composite sampling are included in order to obtain samples that are representative of the discharge given the potential variability in the duration, frequency and magnitude of discharges from this facility.

Discrete (i.e., grab) samples are specified in the permit for parameters that for varying reasons are not amenable to compositing.

Monitoring locations are specified in the permit (Part I.A and Part II.A) in order to ensure that representative samples of the discharge and receiving water 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(j). 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.B of the permit, including completion and submittal of Discharge Monitoring Reports (DMRs), Ammonia Data Logs, and AZPDES Discharge 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.

The permit also requires annual submittal of an Ammonia Data Log that records the results for temperature, pH, and ammonia samples and date of sampling (Part II.B.5). Because the ammonia standards in 18 A.A.C. 11, Article 1, Appendix A are contingent upon the pH and temperature at the time of sampling for ammonia, the permittee must determine the applicable ammonia standard using the ammonia criteria table and calculate the Ammonia Impact Ratio for that ammonia sample result. The AIR is recorded on the DMR.

Requirements for retention of monitoring records are detailed in Part II.D.1 of the permit.

X. BIOSOLIDS REQUIREMENTS (Part III in Permit)

Not applicable.

XI. SPDCIAL 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 discharge 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 Havasu (Mark Wilmer) Pumping Plant will be to a perennial water with Tier 2 antidegradation protection. This is a renewal permit for an existing facility with no new or expanded discharge, and the existing uses have been maintained. Therefore, an antidegradation review is not required at this time. Discharge 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 on ADEQ's website or 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 on ADEQ's website or 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 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: Rachael Willis
1110 West Washington Street
Phoenix, Arizona 85007

Or by contacting Rachael Willis at (602) 771 – 0902 or by e-mail at willis.rachael@azdeq.gov.

XVI. INFORMATION SOURCES

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

1. AZPDES Permit Application Forms 1 and 2C, received May 6, 2026, 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 May 27, 2026.
3. ADEQ files on the Havasu Pumping Plant.
4. ADEQ Geographic Information System (GIS) Website.
5. Arizona Administrative Code (A.A.C.) Title 18, Chapter 11, Article 1, *Water Quality Standards for Surface Waters*, adopted December 31, 2016.
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 (EPA-505-2-90-001, 1991).
8. U.S. EPA NPDES Permit Writers' Manual, September 2010.
9. The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion, US EPA (EPA-823-B-96-007, 1996).
10. National Pollutant Discharge Elimination System Whole Effluent Toxicity Permit Writers' Manual, U.S. EPA (EPA-833-B-24-001).
11. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA-821-R-02-012, 2002).
12. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA-821-R-02-013, 2002).
13. National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document, U.S. EPA (EPA-833-R-10-003, 2010).
14. *Method Guidance and recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)* (EPA-821-B-00-004, 2000).
15. National Pollutant Discharge Elimination System Test of Significant Toxicity Technical Document, U.S. EPA (EPA-833-R-10-004, 2010).