ADEQ Arizona Department of Environmental Quality

Clean Air, Safe Water
Healthy Land for Everyone

DRAFT FACT SHEET

ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

This document gives pertinent information concerning the issuance of the AZPDES permit listed below. This facility is a potable water pumping station with a design capacity of 1.25 million gallons per day (MGD) and is considered to be a minor facility under the AZPDES program. 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:	United States Department of Interior – The National Park Service
Permittee's Mailing Address:	P. O. Box 129 Grand Canyon, Arizona 86023-0129
Facility Name:	Havasupai Garden Pump Station
Facility Address or Location:	Located approximately 2.5 miles north of Grand Canyon South Rim Village
County:	Coconino County
Contact Person(s):	Adam Leavy, Chief of Facility Management & Engineering 928-310-8654 / adam_leavy@nps.gov
AZPDES Permit Number:	AZ0026433
Inventory Number:	102469
LTF Number:	114594

II. STATUS OF PERMIT(s)	
AZPDES permit applied for:	New permit for existing facility
Date application received:	February 5, 2026
Date application was determined administratively complete:	February 9, 2026
Previous permit number (if different):	AZ0023621
Previous permit expiration date:	March 22, 2026

III. GENERAL FACILITY INFORMATION	
Type of Facility:	Potable water pumping station
Facility Location Description:	The Havasupai Garden Potable Water Pumping Station is located north of the Grand Canyon South Rim Village and south of the Colorado River. Havasupai Garden is approximately 4.5 miles from the Grand Canyon South Rim Village by foot trail, the direct distance is approximately 2.5 miles.
Proximity to Tribal Nations:	The Havasupai Garden Potable Water Pumping Station is approximately 15.7 miles east of the Havasupai Tribe and 20.5 miles west of the Navajo Nation.
Discharge Design Flow:	1.25 million gallons per day (MGD)
Applicable Treatment Processes:	Chlorinated groundwater from Roaring Springs is pumped via the trans-canyon pipeline to a settling tank for sedimentation and distribution to Grand Canyon South Rim Village. Overflow of unused potable water from the settling tank located at Havasupai Garden Potable Water Pump Station is dechlorinated using sodium sulfite.
Nature of facility discharge:	Treated groundwater for water supply.
Average flow per discharge:	The applicant indicates the following average daily flow per outfall: Outfall 001 is 0.8 MGD Outfall 002 is 0.16 MGD Outfall 003 is 0.18 MGD
Continuous or intermittent discharge:	Continuous discharge with variable flow rate.

The applicant operates a potable water pumping station that pumps drinking water to the Grand Canyon South Rim Village. The potable water station is part of a water distribution system that receives water from Roaring Springs on the North side of the Colorado River, approximately 3,500 feet below the North Rim, in Bright Angel Canyon.

The Transcanyon Water Line (TCWL) is a 12.5-mile conveyance of 6-inch and 8-inch aluminum water pipeline constructed in the 1960s that conveys water from the Roaring Springs source on the North Rim to the Havasupai Garden Potable Water Pump Station, and ultimately to the South Rim. It provides potable water and fire suppression for all facilities on the South Rim as well as some inner canyon facilities in the Cross-Canyon Corridor including over 800 historic buildings.

Chlorinated groundwater from Roaring Springs flows by gravity via the TCWL to a settling tank for sedimentation at the Havasupai Garden Potable Water Pump Station prior to further transport and distribution to Grand Canyon South Rim Village. Chlorine is injected into the system at Roaring Springs. Operating pressure at Phantom Ranch and the Havasupai Garden Potable Water Pump Station is 800 psi.

Outfall 003 is a finished water tank overflow located at the upper Phantom Ranch area. From the overflow pipe, the discharge is routed to an LPD-250A dechlorinating diffuser designed to chemically treat potable water with a chlorine/chloramine concentration ≤ 4 parts per million (ppm). The final treatment process occurs within the diffuser tank where dechlorination is achieved by sodium bisulfite tablets prior to discharge from Outfall 003 and mixing with receiving water. Addition of sodium bisulfite to the diffuser is performed manually at intervals determined by sample monitoring.

Outfall 002 is a yard hydrant discharge at Phantom Ranch Delta. From the distribution pipe, a hose conveys effluent to an LPD-250A dechlorinating diffuser designed to chemically treat potable water with a chlorine/chloramine concentration ≤ 4 parts per million (ppm). The final treatment process occurs within the diffuser tank where dechlorination is achieved by sodium bisulfite tablets prior to discharge from Outfall 002 and mixing with receiving water. Addition of sodium bisulfite to the diffuser is performed manually at intervals determined by sample monitoring.

Outfall 001 is a continuous overflow of unused potable water from the settling tank that is dechlorinated by sodium bisulfite addition via peristaltic pump at the Havasupai Garden Potable Water Pump Station. Effluent then travels from Outfall 001 at the point of discharge from the Havasupai Garden Potable Water Pump Station into a discharge channel about 700 feet before the confluence with Garden Creek.

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 Outfall 001 is Garden Creek – Headwaters to confluence with Pipe Creek. This is a surface water listed in A.A.C. R18-11 Appendix B. The WOTUS PSW for Outfalls 002 and 003 is Bright Angel Creek – Below Roaring Springs Creek to confluence with the Colorado River. This is a surface water listed in A.A.C. R18-11 Appendix B.
River Basin:	Upper Colorado River Basin
Outfall Location(s):	Outfall 001: Township 31 N, Range 2 E, Section 13 Latitude 36° 04' 43.1" N, Longitude 112° 07' 36.7" W Coordinates in Decimal Degrees: [36.0786, -112.1269] Outfall 002: Township 31 N, Range 3 E, Section 05 Latitude 36° 05' 58.2" N, Longitude 112° 05' 34.74" W Coordinates in Decimal Degrees: [36.0995, -112.0930] Outfall 003: Township 31 N, Range 3 E, Section 05 Latitude 36° 06' 23.8" N, Longitude 112° 05' 37.26" W Coordinates in Decimal Degrees: [36.1066, -112.0937]

Designated uses for the receiving water listed above:	Aquatic and Wildlife warm water (A&Ww) Full Body Contact (FBC) Fish Consumption (FC)
Is the receiving water on the 303(d) list?	1. Garden Creek – Headwaters to confluence with Pipe Creek The receiving water is not on the 303(d) list and there are no TMDL issues associated. 2. Bright Angel Creek – Below Roaring Spring Springs Creek to confluence with Colorado River The receiving water is not on the 303(d) list and there are no TMDL issues associated. Note: The downstream Colorado River is impaired for Selenium (2024).
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, effluent monitoring data are available. The following is the measured effluent quality reported in the application.

Parameters	**Units**	**Maximum Daily Discharge Concentration**
Total Kjeldahl Nitrogen (TKN)	mg/L	5.205

VI. STATUS OF COMPLIANCE WITH THE EXISTING AZPDES PERMIT

Date of Most Recent Inspection:	10/13/2022; no potential violations were noted as a result of this inspection.
Discharge Monitoring Reports (DMR) Reviewed:	03/2021 through 01/2026
Lab Reports Reviewed:	02/2022 through 11/2025
DMR Exceedances:	No exceedances were noted.

Notice(s) of Violation (NOV) Issued:	11/20/25; Case ID #: 230927
NOVs Closed:	N/A
Formal Enforcement Action(s):	03/19/26; Consent Order

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 and all other calls to a non-emergency number.
Reporting Location for Effluent Characterization (EC) Monitoring	Submit results through DMRs	Report results on the EC Monitoring Data Sheet Excel form provided by ADEQ and submit annually to azpdes_data@azdeq.gov by January 28th following each annual reporting period. See Part I.D.2 and Part II.B.3 of permit. Laboratory reports for EC 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 and sufficiently sensitive test methods.	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).

Whole Effluent Toxicity (WET) Data Evaluation and Reporting	Calculation of the no observed effect concentration (NOEC) and the 25% inhibition effect concentration (IC25). Report results on the DMR as Pass (0)/Fail (1) for acute tests and 100/NOEC 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 to 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.
Toxicity Reduction Evaluation (TRE) Work Plan	TRE plan developed following detection of effluent 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 effluent toxicity has been detected or not. Use the template supplied by ADEQ (See Part IV of the permit).	Preparation of a Toxicity Reduction Evaluation (TRE) Work Plan allows a timely response when the TRE requirements are triggered. A TRE Work Plan ensures that the permittee understands the expectations prior to detection of toxicity and can respond in a timely manner to protect A&W designated uses.
Suspended Sediment Concentration (SSC)	Monitoring not required.	Monitoring required for the effluent and the receiving water, downstream of the discharge.	ADEQ is requiring monitoring of the effluent and downstream receiving water to assess compliance with the numeric standard listed in R18-11-109(D).

Temperature	Monitoring required for the effluent or receiving water.	Monitoring required for the receiving water, both upstream and downstream of the discharge.	ADEQ is requiring monitoring of the effluent, the upstream receiving water upstream and downstream receiving water to assess compliance with the numeric standard listed in Arizona Administrative Code 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 effluent 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 *City & County of San Francisco v. EPA.*
Copper, Iron, Selenium, Cyanide (as free Cyanide)	Limited	Limit removed.	Data submitted indicated no reasonable potential (RP) for an exceedance of a standard.
Chromium III	Monitoring not required	Assessment level and effluent characterization monitoring if total chromium concentration exceeds 86 µg/L	Monitoring for chromium III is added to ensure that, in the event total chromium levels reach the trigger for chromium III characterization, the permittee conducts appropriate monitoring to maintain consistency with the chromium III surface water quality standards and designated uses for Garden Creek and Bright Angel Creek.
Biochemical Oxygen Demand (BOD-5), *E. coli*, Oil and Grease, and Total Suspended Solids	Monitoring not required	Effluent characterization monitoring See Table 4.a of permit	
Barium, Boron, Fluoride, Hydrogen Sulfide, Sulfides (total), Manganese, and Uranium	Monitoring not required	Effluent characterization monitoring See Table 4.b of permit	
Ammonia	Monitoring effluent characterization based on pH and temperature.	Monitoring effluent characterization using an Ammonia Impact Ratio (AIR).	The AIR is a trackable numeric value. See Section VII for details.

Table 4.a: Ammonia, Total Residual Chlorine, Dissolved Oxygen – effluent, Dissolved Oxygen – receiving water downstream, Nitrate/Nitrite, Total Kjeldahl Nitrogen (TKN), pH, Phosphorus, Temperature – effluent, Temperature – receiving water upstream, Temperature – receiving water downstream, Temperature – receiving water net change, Total Dissolved Solids	Monitoring Frequency 1x /6 months	Monitoring Frequency 1x / Quarter	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 design flow of 1.25 MGD. The previous permit was inconsistent with this guidance.
Table 3 and Table 4.b: WET	Monitoring Frequency: 1x/Year in 2025	Monitoring Frequency: 1x/Year in 2027, 2028, 2029, and 2030	New ADEQ procedure for implementing EPA's TST statistical method, which requires a minimum of four WET test to ensure a sufficient and statistically valid dataset for determining RP.
Table 4.a. Effluent Characterization Testing – General Chemistry and Microbiology	Monitoring Frequency 1x /6 months	Monitoring Frequency 1x / Quarter	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.

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 effluent 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.

No limits have been removed from the permit. 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.

VIII. DETERMINATION OF EFFLUENT 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 133:

There are no applicable technology-based limitations for this type of discharge.

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 effluent 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.

It is assumed that RP exists for exceedance of water quality criteria for the pollutant total residual chlorine (TRC) if chlorine or bromine is used in the treatment process. These parameters have been shown through extensive monitoring to fluctuate greatly and thus are not conductive to exclusion from limitation due to a lack of RP. Therefore, the draft permit contains WQBELs for TRC.

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, effluent 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).

The following trace substances were not included as limits or assessment levels in the 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 an industrial discharge.

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 161 mg/L (the average hardness of the receiving water) 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 IV) 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 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 tests for *Ceriodaphnia dubia and Pimephales promelas* require the collection of three samples, preferably on days 1, 3, and 5 for daily solution renewal, these chronic tests are not required during any given monitoring period in which the discharge does not occur over seven consecutive calendar days during a monitoring period.

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 ≤ 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 effluent and no associated PE (Percent Effect) value is ≥ 10 indicating toxicity at a level higher than acceptable is not present in the effluent (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 effluent 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 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) 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 AAC R18-9-B906.

The permit requires discrete 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.

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

• Table 4.a.—General Chemistry and Microbiology: ammonia, BOD-5, *E. coli*, total residual chlorine (TRC), 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 / or 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, 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. Monitoring frequency was established based on consideration of pollutants that may be present in the discharge, and the need to ensure protection of applicable water quality standards. 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

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.a. Permit Limitations and Monitoring Requirements – Outfall 001

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.
Chlorine, Total Residual (TRC)	42	6 µg/L	1.81	N/A	11 µg/L	A&Wedw chronic	RP always expected when chlorine or bromine is used for disinfection.	TRC is to be monitored as a discrete sample and a WQBEL remains in the permit. 40 CFR Part 136 specifies that discrete samples must be collected for chlorine. At least one sample per month must coincide with WET testing to aid in the determination of the cause of toxicity, if toxicity is detected.
Dissolved Oxygen	42	9.57 mg/L	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	Monitoring is required for the effluent and the downstream receiving water with discrete samples for effluent characterization.
pH	42	8.09	N/A	N/A	Minimum: 6.5 Maximum: 9.0 A.A.C. R18-11-109(B)	A&Wedw and PBC	N/A	pH is to be monitored using a discrete sample of the effluent 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).
Temperature	45	28ºC	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 effluent is to be monitored for effluent 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	N/A	N/A	N/A	N/A	80 mg/L (6)	A&Ww	RP Indeterminate (No Data)	Monitoring of the effluent and downstream receiving water is required for effluent characterization. Samples shall not be collected within during or within 48 hours after a local storm event.

Table 1.a. Permit Limitations and Monitoring Requirements – Outfall 001

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)
Total Dissolved Solids (TDS)	12	214 mg/L	1.33	285.15	907 kg/day Calculated as a sum of Outfalls 001, 002, and 003	Colorado River Basin Salinity Control Forum requirements applies to dischargers to the Colorado River and its tributaries above Imperial Dam	N/A	Monitoring is required due to the effluent limit set and due to nature of discharge.
Ammonia	7	>1 mg/L	N/A	N/A	Standard varies with temperature and pH	A&Ww	RP Indeterminate (5)	Ammonia is to be monitored by discrete sample and a WQBEL in the form of an ammonia impact ratio (AIR) of 1 is set in the permit (4). 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	 N: 6 P: 7	 N: 5.205 mg/L P: 0.06 mg/L	N/A	N/A	No applicable standards	N/A	N/A	Monitoring required for effluent characterization.
Hardness	10	260 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 161 mg/L. Monitoring for hardness is required whenever monitoring for hardness dependent metals is required.
Antimony	7	<0.5 ug/L	3.54	N/A	30 ug/L	A&W Chronic (Warm)	No	Monitoring required for effluent characterization.
Arsenic, Total Recoverable	7	1.6 ug/L	3.54	5.67 ug/L	30 ug/L	FBC	No	Monitoring required for effluent characterization.
Barium	2	110 ug/L	7.39	813.31 ug/L	98000 ug/L	FBC	No	Monitoring required for effluent characterization.
Beryllium	7	<2 ug/L	3.54	N/A	5.3 ug/L	A&W Chronic (Warm)	No	Monitoring required for effluent characterization.
Cadmium, Total Recoverable (7)	7	<0.1 ug/L	3.54	N/A	3.19 ug/L	A&W Chronic (Warm)	No	Monitoring required for effluent characterization.

Table 1.a. Permit Limitations and Monitoring Requirements – Outfall 001

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)
Chromium VI, Total Recoverable	6	<15 ug/L	3.82	N/A	11 ug/L	A&W Chronic (Warm)	Indeterminate	Monitoring required and an assessment level remains in the permit.
Chromium, Total	7	<5 ug/L	3.54	N/A	No Criteria	N/A	No	Monitoring required and an assessment level remains in the permit.
Copper, Total Recoverable (7)	7	<10 ug/L	3.54	N/A	13.47 ug/L	A&W Chronic (Warm)	No	Monitoring required for effluent characterization. (7)
Cyanide	6	<10 ug/L	3.82	N/A	9.7 ug/L	A&W Chronic (Warm)	No	Monitoring required for effluent characterization.
Hydrogen Sulfide	4	<40 ug/L	4.74	N/A	2 ug/L	A&W Chronic (Warm)	Indeterminate	Monitoring required and an assessment level remains in the permit.
Iron	7	63 ug/L	3.54	223.22 ug/L	1000 ug/L	A&W Chronic (Warm)	No	Monitoring required for effluent characterization.
Lead, Total Recoverable (7)	7	<1 ug/L	3.54	N/A	4.22 ug/L	A&W Chronic (Warm)	No	Monitoring required for effluent characterization. (7)
Mercury, Total Recoverable	7	<2 ug/L	3.54	N/A	0.01 ug/L	A&W Chronic (Warm)	Indeterminate	Monitoring required and an assessment level remains in the permit.
Nickel, Total Recoverable (7)	7	<20 ug/L	3.54	N/A	77.93 ug/L	A&W Chronic (Warm)	No	Monitoring required for effluent characterization. (7)
Selenium	7	<2 ug/L	3.54	N/A	2 ug/L	A&W Chronic (Warm)	No	Monitoring required for effluent characterization.
Silver, Total Recoverable (7)	7	<0.1 ug/L	3.54	N/A	7.32 ug/L	A&W Acute (Warm)	No	Monitoring required for effluent characterization. (7)
Sulfides	11	40 ug/L	2.90	115.96 ug/L	No Criteria	N/A	No	Monitoring required and an assessment level remains in the permit.
Thallium	7	<0.5 ug/L	3.54	N/A	7.2 ug/L	FC	No	Monitoring required for effluent characterization.
Total Dissolved Solids	12	214 mg/L	1.33	285.15 mg/L	No Criteria	N/A	N/A	Effluent limit remains in the permit.
Zinc, Total Recoverable (7)	5	<20 ug/L	4.19	N/A	175.7 ug/L	A&W Chronic (Warm)	No	Monitoring required for effluent characterization. (7)
Whole Effluent Toxicity (WET):								
Ceriodaphnia dubia (Water flea)	1	1.0 Tu_c	N/A	N/A	No toxicity (A.A.C. R18-11-108(A) (6)	A&Ww	RP Indeterminate (8)	Monitoring required and an action level is set.
Pimephales promelas (Fathead minnow)	1	1.0 Tu_c	N/A	N/A	No toxicity (A.A.C. R18-11-108(A) (6)	A&Ww	RP Indeterminate (8)	Monitoring required and an action level is set.

Table 1.a. Permit Limitations and Monitoring Requirements – Outfall 001

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)
Pseudo-kirchneriella subcapitata (Green Alga) (9)	1	1.0 Tu_c		N/A	No toxicity (A.A.C. R18-11-108(A) (6)	A&Ww	RP Indeterminate (8)	Monitoring required and an action level is set.

Footnotes:

1. Maximum quantified result or maximum reporting limit, whichever is highest. A maximum reporting limit is indicated with less than "<" sign.
2. 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.
3. 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.
4. The monitoring frequencies are as specified in the permit.
5. An AIR will be calculated by dividing effluent 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 determine the median.
7. Hardness-dependent metal - the standard for this parameter is based on the average hardness value of the effluent or receiving water as indicated above.
8. Monitoring with ALs or Action Levels always required for these parameters unless RP exists and limits are set.
9. Formerly known as *Selenastrum capricornutum or Raphidocelis subcapitata*

Table 1.b. Permit Limitations and Monitoring Requirements – Outfall 002

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.
Chlorine, Total Residual (TRC)	54	< 25 µg/L	1.68	N/A	11 µg/L	A&Wedw chronic	RP always expected when chlorine or bromine is used for disinfection.	TRC is to be monitored as a discrete sample and a WQBEL remains in the permit. 40 CFR Part 136 specifies that discrete samples must be collected for chlorine. At least one sample per month must coincide with WET testing to aid in the determination of the cause of toxicity, if toxicity is detected.
pH	54	7.88	N/A	N/A	Minimum: 6.5 Maximum: 9.0 A.A.C. R18-11-109(B)	A&Wedw and PBC	N/A	pH is to be monitored using a discrete sample of the effluent and a WQBEL is set. 40 CFR Part 136 specifies that grab samples must be collected for pH.
Total Dissolved Solids (TDS)	5	173 mg/L	N/A	N/A	907 kg/day Calculated as a sum of Outfalls 001, 002, and 003	Colorado River Basin Salinity Control Forum requirements applies to dischargers to the Colorado River and its tributaries above Imperial Dam	N/A	Monitoring is required due to the effluent limit set and due to nature of discharge.

Footnotes:

1. Maximum quantified result or maximum reporting limit, whichever is highest. A maximum reporting limit is indicated with less than "<" sign.
2. 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.
3. 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.
4. The monitoring frequencies are as specified in the permit.

Table 1.c. Permit Limitations and Monitoring Requirements – Outfall 003

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.
Chlorine, Total Residual (TRC)	57	<25 µg/L	1.65	N/A	11 µg/L	A&Wedw chronic	RP always expected when chlorine or bromine is used for disinfection.	TRC is to be monitored as a discrete sample and a WQBEL remains in the permit. 40 CFR Part 136 specifies that discrete samples must be collected for chlorine. At least one sample per month must coincide with WET testing to aid in the determination of the cause of toxicity, if toxicity is detected.
pH	57	8.74	N/A	N/A	Minimum: 6.5 Maximum: 9.0 A.A.C. R18-11-109(B	N/A	N/A	pH is to be monitored using a discrete sample of the effluent and a WQBEL is set. 40 CFR Part 136 specifies that grab samples must be collected for pH.
Total Dissolved Solids (TDS)	5	692 mg/L	N/A	N/A	907 kg/day Calculated as a sum of Outfalls 001, 002, and 003	Colorado River Basin Salinity Control Forum requirements applies to dischargers to the Colorado River and its tributaries above Imperial Dam	N/A	Monitoring is required due to the effluent limit set and due to nature of discharge.

Footnotes:

1. Maximum quantified result or maximum reporting limit, whichever is highest. A maximum reporting limit is indicated with less than "<" sign.
2. 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.
3. 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.
4. The monitoring frequencies are as specified in the permit.

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 an effluent limitation for Total Suspended Solids (TSS). The effluent limit for TSS ensures the discharge does not cause bottom deposits. ADEQ will continue to analyze SSC results and include an effluent limitation for SSC where reasonable potential exists.

Cause objectionable odor in the area in which the surface water is located;

- 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 effluent characterization monitoring to assess the quality of the effluent 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), total nitrogen, and total phosphorus to assess the amount of nutrients present in the discharge. Where reasonable potential exists for these parameters, ADEQ includes effluent 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 plan.

- The permit contains a monitoring with an effluent limitation for Total Suspended Solids (TSS). The effluent 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.

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) in order to ensure that representative samples of the 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(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, Section B of the permit, including completion and submittal of Discharge Monitoring Reports (DMRs), Ammonia Data Logs, 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.

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(s) 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. 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 Havasupai Garden Potable Water Pumping Station 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. 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 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 Protection Permits Unit
Attn: Lora Walsh
1110 West Washington Street
Phoenix, Arizona 85007

Or by contacting Lora Walsh at (602) 771 - 4539 or by e-mail at walsh.lora@azdeq.gov.

XVI. INFORMATION SOURCES

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

1. AZPDES Permit Application Form(s) 1 and 2C, received February 5, 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 March 30, 2026.
3. ADEQ files on Havasupai Garden Potable Water Pump Station.
4. ADEQ Geographic Information System (GIS) Website
5. Information provided to ADEQ staff during a site visit to the facility location on October 21, 2022.
6. Arizona Administrative Code (AAC) Title 18, Chapter 11, Article 1, *Water Quality Standards for Surface Waters,* adopted December 31, 2016.
7. A.A.C. Title 18, Chapter 9, Article 9. *Arizona Pollutant Discharge Elimination System* rules.
8. 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*.

9. EPA Technical Support Document for Water Quality-based Toxics Control (EPA-505-2-90-001, 1991).
10. U.S. EPA NPDES Permit Writers' Manual, September 2010.
11. The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion, US EPA (EPA-823-B-96-007, 1996).
12. National Pollutant Discharge Elimination System Whole Effluent Toxicity Permit Writers' Manual, U.S. EPA (EPA-833-B-24-001).
13. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA-821-R-02-012, 2002).
14. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA-821-R-02-013, 2002).
15. National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document, U.S. EPA (EPA-833-R-10-003, 2010).
16. *Method Guidance and recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)* (EPA-821-B-00-004, 2000).
17. National Pollutant Discharge Elimination System Test of Significant Toxicity Technical Document, U.S. EPA (EPA-833-R-10-004, 2010).