ORIGINAL

BEFORE THE ARIZONA CORPORATION COMMISSION

50

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IN THE MATTER OF THE APPLICATION OF HASSAYAMPA UTILITIES COMPANY, INC., FOR A CERTIFICATE OF CONVENIENCE AND NECESSITY.	Docket No. SW-20422A-05-0659 NOTICE OF FILING (COMPLIANCE)

Decision No. 68922 (August 29, 2006) required Hassayampa Utilities Company, Inc. ("Hassayampa") to file a copy of an Aquifer Protection Permit ("APP") and/or Arizona Pollutant Discharge Elimination System ("AZPDES") permit issued by the Arizona Department of Environmental Quality ("ADEQ"). A Procedural Order issued on June 18, 2007, provides that the APP and/or AZPDES permits are due on April 30, 2009. Accordingly, attached as Exhibit A is Hassyampa's AZPDES permit.

RESPECTFULLY SUBMITTED this 18th day of July 2008.

ROSHKA DEWULF & PATTEN, PLC

By _____

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EXHIBIT

"A"

ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

FACT SHEET

This document gives pertinent information concerning the issuance of the AZPDES permit listed below. This facility is a wastewater treatment plant with a design capacity of 1.0 million gallons per day (MGD), and thus is considered to be a major facility under the NPDES program. The effluent limitations contained in this permit will maintain the Water Quality Standards listed in Arizona Administrative Code (AAC.) R18-11-101 et. seq. This permit is proposed to be issued for a period of 5 years.

Permittee's Name:	Hassayampa Utility Company, Inc. (Hassayampa Ranch Water Reclamation Facility)
Mailing Address:	21410 N. 19th Avenue, Suite 201 Phoenix, Arizona 85027
Plant Location:	East of 331st Avenue & Indian School Road Maricopa County, Arizona
Contact Person(s):	Graham Symmonds, S.V.P. of Regulatory Affairs & Compliance (623) 580-9600
AZPDES Permit No.	AZ0025453
Inventory No.	105680

I. STATUS OF PERMIT(s)

The Hassayampa Utility Company, Inc. has applied for a new Arizona Pollutant Discharge Elimination System (AZPDES) permit to allow the discharge of tertiary treated domestic wastewater from the Hassayampa Ranch Water Reclamation Facility (WRF) in Maricopa County, Arizona to the Hassayampa River in the Middle Gila River Basin. The Hassayampa Utility Company, Inc. is also obtaining an Aquifer Protection Permit (APP) No. P105680 and a Reuse Permit No. R105680, both issued by ADEQ for discharges from the Hassayampa Ranch WRF. The APP regulates discharges to the local aquifer and the Reuse permit regulates the practice of reusing the treated wastewater.

As of March 11, 2008 personnel of the Surface Water Section, Permits Unit have reviewed the application for this AZPDES permit as well as applicable sections of the appropriate 208 Maricopa Association of Governments' Water Quality Management Plan. Based on this review, the discharge application and permit are consistent with the 208 regional plan.

II. GENERAL FACILITY INFORMATION

Hassayampa Ranch Water WRF is not constructed as of this writing, but will be located in Township 2 North, Range 5 West, Section 27. The applicant will operate a privately owned treatment works that will serve the Hassayampa Ranch community, with a service population of approximately 11,200 people. The wastewater treatment plant will be part of a sanitary sewer system that receives domestic wastewater from

residential and commercial sources. There are no industrial or significant industrial dischargers connected to the treatment works.

The design capacity for the new WRF will be 1 million gallons per day (mgd).Treatment processes at the new WRF will consist of a sequencing batch reactor (SBR) to include influent screening, activated sludge biological treatment, tertiary filtration, and ultra-violet disinfection. Sludge will be dewatered and hauled to an approved landfill for disposal.

The proposed permit will authorize all of the 1.0 mgd of treated effluent from the Hassayampa Ranch WRF to be discharged to the Hassayampa River.

III. 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.

The receiving water for Hassayampa Ranch's Outfall 001 is the Hassayampa River in the Middle Gila River Basin.

Outfall 001 is located at: Township 2N, Range 5W, Section 22
Latitude 33° 29' 42", Longitude 112° 45' 15"

The discharge is to the segment of the Hassayampa River 8 miles south of Wickenburg to the Buckeye Irrigation Canal, which is not on the 303(d) list and there are no TMDL issues associated. However, it is a surface water listed in Appendix B of A.A.C. Title 18, Chapter 11, Article 1.

This segment of the Hassayampa River has the following designated uses:

Aquatic and Wildlife ephemeral (A&We)
Partial Body Contact (PBC)
Agricultural Livestock watering (AgL)

Per A.A.C. R18-11-113(E), the water quality standards that apply to Effluent Dependent Waters (EDWs) will be applied to derive discharge limitations for any point source discharge of treated wastewater from a wastewater treatment plant to an ephemeral water. The draft AZPDES permit includes discharge limitations and monitoring requirements designed to achieve compliance with A&Wedw standards.

The following uses are being applied to the receiving water:

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

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 uses are compared and limits that will protect for all applicable uses are developed based on the standards.

IV. DESCRIPTION OF DISCHARGE

Since this facility has not been constructed and is not in operation at the time of this writing, there have been no discharges made to the Hassayampa River, and no effluent monitoring data is available. The Hassayampa Ranch WRF application dated 10/11/05 indicates that the design removal rate for: BOD will be > 85%, TSS will be 96%, and N will be > 90%.

V. STATUS OF COMPLIANCE WITH THE EXISTING AZPDES PERMIT

This is a new permit and as such this section is not applicable.

VI. DETERMINATION OF EFFLUENT LIMITATIONS and ASSESSMENT LEVELS (Part I in Permit)

When determining what parameters need monitoring and/or limits included in the draft Hassayampa Ranch 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:
The regulations found at 40 CFR §133 require that publicly owned treatment works achieve specified treatment standards for BOD, TSS, and pH based on the type of treatment technology available.The Hassayampa Ranch WRF is a privately owned plant using the same technology for treatment of domestic sewage as a POTW. These provisions have been applied based on Best Professional Judgment (BPJ).

Numeric Water Quality Standards: As outlined in A.A.C. R18-11-109 and Appendix A:
Per 40 CFR 122.44(d)(1)(ii), (iii) and (iv), discharge limits must be included in the permit for parameters with "reasonable potential", 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. "Reasonable potential" refers to the possibility, based on the statistical calculations using the data submitted, or consideration of other factors to determine whether the discharge may exceed the Water Quality Standards. The procedures used to determine reasonable potential 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 limit is required in the permit. RP may also be determined from best professional judgment (BPJ) based on knowledge of the treatment facilities and other factors. The basis for the RP determination for each parameter with a limit is shown in the table below.

It is assumed that RP exists for exceedance of water quality criteria for the pollutants *E. coli* and total residual chlorine (TRC). These parameters have been shown through extensive monitoring of POTWs to fluctuate greatly and thus are not conducive to exclusion from limitation due to a lack of RP. Therefore the draft permit contains numeric limits for *E. coli* and TRC. The TRC limit will only apply when/if chlorine is used for disinfection.

However, since effluent data is not yet available, reasonable potential (RP) could not be calculated for other potential pollutants that are subject to numeric water quality standards. Instead of limits, assessment levels or ALs were established for Trace Substances and Whole Effluent Toxicity (Tables 2 and 4 in the permit). ALs and relatively frequent monitoring are necessary for these parameters because they are commonly present in WWTP effluents at variable concentrations and at a level that could exceed the applicable water quality criteria for them. (See discussion under "Assessment Levels", below, for further details). For a number of other pollutants, effluent characterization (EC) monitoring is required at a lesser frequency and without established ALs or numeric limits (Tables 3.a. – 3.f in the draft permit).

The proposed permit limits and/or ALs 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 takes into account criteria, effluent variability, and the number of observations taken to determine compliance with the limit and is described in Chapter 5 of the TSD. Limits/ALs 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/AL is based on human health criteria, the monthly average was set at the level of the applicable standard and a daily maximum limit was determined as specified in Section 5.4.4 of the TSD.

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

Permit Limitations and Monitoring Requirements: The tables that follow summarize parameters that are limited in the permit and the rationale for that decision. Also included are some parameters that require monitoring without any limitations or that have not been included in the permit at all and the basis for that decision. 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 R18-9-A905, *AZPDES Program Standards*.

Parameter	Lowest Standard/ Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP determination	Proposed Monitoring Requirement/ Rationale
Flow	- - -	- - -	- - -	- - -	- - -	It is proposed that discharge flow be monitored on a continual basis using a flow meter and reported 1x /month.
BOD & Suspended Solids (TSS)	30 mg/L 30 day average 45 mg/L 7 day average/ Technology based limits 40 CFR 133.102	No data	0	NA	Limit for BOD and TSS is always included.	Monitoring for influent and effluent BOD and TSS to be conducted 1x /every 2 weeks using composite samples of the influent and the effluent. The sample type required was chosen to be representative of the discharge. The requirement to monitor influent BOD and suspended solids is included to assess compliance with the 85% removal requirement in this permit. At least one sample must coincide with WET testing to aid in the determination of the cause of toxicity if toxicity is detected.
pH	Minimum: 6.5 Maximum: 9.0 Maximum change due to discharge: 0.5/ A&Wedw, and PBC A.A.C.R 18-11-109(B)	No data	0	NA	Limit is always included. Technology based limit exists in addition to the limit in A.A.C.R 18-11-109(B)	pH is to be monitored 1x /week using a discrete sample of the effluent. 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.
Temperature	No applicable standard	No data	0	NA	NA	Effluent temperature is to be monitored 1x /quarter for effluent characterization by discrete sample. 40 CFR Part 136 specifies that discrete samples must be collected for temperature. Additionally, one sample must coincide with WET sampling to aid in the determination of the cause of toxicity, if toxicity is detected.
Ammonia	No applicable standard	No data	0	NA	NA	Ammonia is to be monitored 1x /quarter for effluent characterization by discrete sample and reported on the Ammonia Data Log in Appendix C of the draft permit. One sample must coincide with WET sampling to aid in the determination of the cause of toxicity, if toxicity is detected.
Antimony	Applicable standard of 560 ug/l/ PBC	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Arsenic	190 ug/L/ A&Wedw	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Beryllium	5.3 ug/L/ A&Wedw chronic	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Cadmium (2)	4.8 ug/L/ A&Wedw chronic	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Chromium (total)	100 ug/L/ PBC	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Chromium III	86 ug/L/ A&Wedw chronic	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Chromium VI	11 ug/L/ A&Wedw chronic	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Copper (2)	10 ug/L/ A&Wedw chronic	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Cyanide	9.7 ug/L/ A&Wedw	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.

Parameter	Lowest Standard/ Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP determination	Proposed Monitoring Requirement/ Rationale
E. Coli	30-day geometric mean: 126 cfu /100 mL (4 sample minimum) Single sample maximum: 576 cfu /100 mL/ PBC	No data	0	NA	RP always expected for WWTPs. See explanation above.	*E. coli* is to be monitored four times per month using a grab sample of the effluent. The specified monitoring frequency is the minimum required to ensure compliance with the 30-day geometric mean water quality standards. 40 CFR Part 136 specifies that grab samples must be collected for coliform bacteria. At least one sample per month must coincide with WET testing to aid in the determination of cause of toxicity if toxicity is detected.
Fecal Coliform	No Applicable Standard	No data	0	NA	NA	No monitoring required.
Hardness	No Applicable Standard. Hardness is used to determine standards for specific metal parameters.	No data	0	NA	NA	A&W standards for cadmium, copper, lead, nickel, silver and zinc used for RP determinations were based on the default hardness value of 120 mg/L. Monitoring for hardness is required whenever monitoring for hardness dependent metals is required.
Lead (2)	3.07 ug/L / A&Wedw chronic	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Mercury	0.2 ug/L/ A&Wedw chronic	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Nickel (2)	60.7 ug/L/ A&Wedw chronic	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Nutrients	No Applicable Standards	No data	0	NA	NA	Monitoring required quarterly for effluent characterization.
Oil and grease	BPJ Technology based level. The monthly and daily assessment levels of 10 and 15 mg/L, respectively, are commonly accepted values that can be achieved by properly operated and maintained WWTPs. These levels are also considered protective of the narrative standard A.A.C. R1811-108.B.	No data	0	NA	NA	Assessment levels set with monitoring required 1x /month.
Selenium	2 ug/L/ A&Wedw chronic	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Silver (2)	6.9 ug/L/ A&Wedw chronic	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Sulfides	100 ug/L/ A&Wedw acute	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.
Thallium	112 ug/L/ PBC	No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.

Parameter	Lowest Standard/ Designated Use		Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP determination	Proposed Monitoring Requirement/ Rationale
Total Residual Chlorine	5 ug/L/ A&Wedw chronic		No data	0	NA	RP always expected for WWTPs. See explanation above.	TRC is to be monitored 1x /week as a discrete sample. 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.
Whole Effluent Toxicity (WET)	No toxicity (A.A.C. R18-11-108.A.6)	*Raphidocelis subcapitata*	No data	0	NA	RP Indeterminate	Monitoring is required 1x /quarter and an action level is set in the permit.
		Pimephales promelas	No data	0	N/A	RP Indeterminate	Monitoring is required 1x /quarter and an action level is set in the permit.
		Ceriodaphnia dubia	No data	0	N/A	RP Indeterminate	Monitoring is required 1x /quarter and an action level is set in the permit.
Zinc (2)	137 ug/L/ A&Wedw acute		No data	0	NA	RP Indeterminate	Assessment levels set with monitoring required 1x /month.

Footnotes:

(1) The monitoring frequencies above are required when the facility is discharging through Outfall 001. If there is no discharge, monitoring shall be conducted for these parameters as shown in Part 1. G. of the permit. (Exception: Discharge Flow metering should remain operational during periods of no discharge.) The resulting data will be needed to characterize the effluent and plant performance.

(2) The standard for this parameter is based on a default hardness value of 120 mg/ L.

Assessment Levels:

Assessment levels (ALs) are established in the draft permit for: antimony, arsenic, beryllium, cadmium, chromium (total), chromium VI, copper, cyanide, lead, mercury, nickel, selenium, silver, sulfides, thallium, zinc, and oil and grease. The basis for establishing ALs for each of these parameters is discussed in the table in Section VI above. ALs are listed in Part I.B of the permit. An AL differs from a discharge limit in that an exceedance of an AL is not a permit violation. Instead, ALs serve as triggers, alerting the permitting authority when there is cause for re-evaluation of RP for exceeding a water quality standard, which may result in new permit limitations. The AL numeric values also serve to advise the permittee of the analytical sensitivity needed for meaningful data collection. Trace substance monitoring is required when there is uncertain RP (based on non-detect values, or limited datasets) or a need to collect additional data or monitor treatment efficacy on some minimal basis. A reopener clause is included in the draft permit should future monitoring data indicate water quality standards are being exceeded. This permit also contains a provision for potential reduction in monitoring after 10 routine data sets are collected. Upon request by the permittee ADEQ will review the tabulated data and determine if the data support such a reduction.

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

Since no actual effluent monitoring data is yet available, a protective default hardness value of 120 mg/L was used to calculate the assessment levels for cadmium, copper, lead, nickel, silver, and zinc.

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

Effluent Characterization Testing

In addition to monitoring for parameters assigned either a permit 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 3.a through 3.f., *Effluent Characterization Testing,* as follows:

- Table 3.a. – ammonia, BOD-5, total residual chlorine, dissolved oxygen, total Kjeldahl nitrogen, Nitrate/nitrite, oil and grease, pH, phosphorus, temperature, and total dissolved solids and total suspended solids.
- Table 3.b. - Selected Metals (Total Recoverable), Hardness, and Cyanide. Data from monitoring done per Table 2 may be used.
- Table 3.c. – Selected Volatile Organic Compounds
- Table 3. d. – Selected Acid-extractible Compounds
- Table 3. e. – Selected Base-Neutral Compounds
- Table 3.f. – Additional Parameters Based on Designated Uses (from Arizona Surface Water Quality Standards, Appendix A, tables 1 and 2.)

NOTE: Some parameters listed in Tables 3.a. and 3.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 3.a. and/or 3.b., provided the specified sample types are the same. In the event the facility does not discharge to a water of the U.S. during the life of the permit, Effluent Characterization Testing, of representative samples of the effluent, is still required.

The purpose of *Effluent Characterization (EC) Testing* is to characterize the effluent and determine if the parameters of concern are present in the discharge and at what levels. This monitoring will be used to assess RP per 40 CFR 122.44(d)(1)(iii)). EC monitoring is required in accordance with 40 CFR 122.43(a), 40 CFR 122.44(i), and 40 CFR 122.48(b) as well as ARS49-203(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.

Whole Effluent Toxicity:

Whole Effluent Toxicity (WET) testing is required in the draft permit (Parts I.E. and IV) to evaluate the discharge according to the narrative toxic standard in AAC R18-11-108(A)(5), as well as whether the discharge has RP for WET per 40 CFR 122.44(d)(iv). At a minimum, the results reported on an AZPDES application must include quarterly testing for a 12-month period within the past year using multiple species, or the results from four tests performed at least annually in the 4.5 years prior to the application. However, since the Hassayampa Ranch WRF is a new discharger, the permittee can be allowed to report these required WET test results up to two years after the WRF becomes operational.

ADEQ does not have a numeric standard for Whole Effluent Toxicity. However, ADEQ adopted the EPA recommended chronic toxicity benchmark of 1.0 TUc for a four day exposure period. Using this benchmark, the limitations and action levels for WET included in the draft permit were calculated in accordance with the methods specified in the *TSD*. The species chosen for WET testing are as recommended in the *TSD* and in *Regions 9 & 10 Guidance For Implementing Whole Effluent Toxicity Testing Programs*.

The draft permit requires quarterly monitoring for three surrogate species [*Ceriodaphnia dubia* (water flea) representing the invertebrate phyla; *Pimephales promelas* (fathead minnow), a vertebrate species; and *Selenastrum capricornutum* (green alga) for evaluating toxicity to plant life]. An exceedance of a limit or action level will trigger follow-up testing to determine if effluent toxicity is persistent. If toxicity above a limit or action level is found in a follow-up test, the permittee will be required to conduct a TRE and possibly a TIE to identify the source of toxicity and reduce toxicity. These conditions are required to ensure that toxicants are not discharged in amounts that are toxic to organisms [A.A.C. R18-11-108(A)(5)]. A reopener clause is included in accordance with 40 CFR Parts 122 and 124 and AAC R18-9-B906.

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

Parameter	Proposed Monitoring Requirement
Whole Effluent Toxicity (WET)	WET testing for acute or chronic toxicity shall be conducted quarterly. The permittee may request a reduction in the required WET monitoring frequency after 10 or more chronic toxicity tests have been completed with no finding of toxicity. A more frequent sampling requirement is triggered if any of the WET action levels listed in the permit are exceeded. The permit also contains provisions for investigating the sources of toxicity, if detected. Three composite samples are required to complete one chronic WET test. A 24-hour composite sample type was chosen in order to have consistency with the type of sample required for other parameters requiring monitoring in this permit. WET sampling must coincide with testing for ammonia and all the parameters in Tables 1 and 2 of the draft permit to aid in the determination of the cause of toxicity if toxicity is detected. Additional procedural requirements for the WET test are included in the proposed permit.

VII. NARRATIVE WATER QUALITY STANDARDS

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

VIII. 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. The permittee has the responsibility to determine that all data collected for purposes of this permit meets the requirements specified in this permit and is collected, analyzed, and properly reported to ADEQ.

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. The permittee is responsible for conducting and reporting results to ADEQ on DMRs or as otherwise specified in the permit.

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

The permit (Part II. A.1 and 2) 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.

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. 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.

The requirements in the draft 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 40CFR122.41(e).

Reporting requirements for monitoring results are detailed in Part II.B.1 of the permit, including completion and submittal of Discharge Monitoring Reports (DMRs) and AZPDES Flow Record forms.

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

IX. BIOSOLIDS REQUIREMENTS (Part III in Permit)

Standard requirements for the monitoring, reporting, record keeping, and handling of biosolids, as well as minimum treatment requirements for biosolids according to 40 CFR Part 503 are incorporated in the draft permit.

X. SPECIAL CONDITIONS (Part V in Permit)

Operation

This permit condition requires the permittee to ensure that the WWTP has an operator who is certified at the appropriate level for the facility, in accordance with R18-5-104 through -114. The required certification level for the WWTP operator is based on the class (Wastewater Treatment Plant) and grade of the facility, which is determined by population served, level of treatment, and other factors.

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 (AAC R18-9-B906, and 40 CFR Part 122.62 (a) and (b)).

XI. 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 Hassayampa Ranch WRF will be to an ephemeral wash which will become (for purposes of this permit) an effluent-dependent water. Except for flows resulting from rain events, the only water in the wash will be the effluent. Therefore, the discharge and the receiving water will normally be one and the same. Effluent quality limitations and monitoring requirements have been established under the proposed permit to ensure that the discharge will meet the applicable water quality standards. As long as the permittee maintains consistent compliance with these provisions, the designated uses of the receiving wash will be presumed protected, and the facility will be deemed to meet currently applicable antidegradation requirements under R18-11-107.C.

XII. STANDARD CONDITIONS

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

XIII. ADMINISTRATIVE INFORMATION

Public Notice (A.A.C. R18-9-A907)
The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft AZPDES permit or other significant action with respect to an AZPDES permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper after a pre-notice review by the applicant and other affected agencies.

Public Comment Period (A.A.C. R18-9-A908)
Rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

Public Hearing (A.A.C R18-9-A908(B))
A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

EPA Review (A.A.C. R18-9-A908(C))
A copy of this draft permit and any revisions made to this draft as a result of public comments received, will be sent to EPA Region 9 for review. If EPA objects to a provision of the draft, ADEQ will not issue the permit until the objection is resolved.

XIV. ADDITIONAL INFORMATION

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

ADEQ
Water Quality Division- Surface Water Permits Unit
Attn: Jacqueline Maye
1110 W. Washington St. – Mail Code 5415A-1
Phoenix, Arizona 85007

or, by contacting Jacqueline Maye at (602) 771-4607.

XV. INFORMATION SOURCES

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

1. NPDES Permit Application Form 2A, received October 17, 2005. and along with supporting data, facility diagram and maps submitted by the applicant with the application forms.

2. Memo from Edwina Vogan to Jacqueline Maye, dated March 11, 2008.

3. Arizona Administrative Code (AAC) Title 18, Chapter 11, Article 1, *Water Quality Standards for Surface Waters*, adopted March 31, 2003.

4. AAC Title 18, Chapter 9, Article 9. *Arizona Pollutant Discharge Elimination System* rules.

5. Code of Federal Regulations (CFR) Title 40:
   Part 122, *EPA administered permit programs: The National Pollutant Discharge Elimination System.*
   Part 124, *Procedures for decisionmaking.*
   Part 133. *Secondary Treatment Regulation.*
   Part 503, *Standards for the Use or Disposal of Sewage Sludge.*

6. EPA Technical Support Document for Water Quality-based Toxics Control dated March, 1991.

7. *Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs*, US EPA, May 31, 1996.

8. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA /821-R-02-013).

9. *U.S. EPA NPDES Permit Writers' Manual*, December 1996.

ADEQ Inventory No. 105680
LTF No. 37904

Permit No. AZ0025453

AUTHORIZATION TO DISCHARGE UNDER THE ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Article 3.1; the Federal Water Pollution Control Act, (33 USC §1251 et. seq., as amended), and Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 9 and 10, and amendments thereto,

Hassayampa Utility Company, Inc.
(Hassayampa Ranch Water Reclamation Facility)
21410 N. 19th Avenue, Suite 201
Phoenix, Arizona 85027

is authorized to discharge treated domestic wastewater from the wastewater treatment plant located east of 331st Avenue and Indian School Road in Maricopa County, Arizona to the Hassayampa River in the Middle Gila River Basin at:

Outfall No.	Latitude	Longitude	Legal
001	33°29' 25" N	112°45' 00" W	Township 2 N, Range 5 W Section 27

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein, and in the attached "Standard AZPDES Permit Conditions," dated February 2, 2004.

This permit shall become effective on June 20, 2008.

This permit and the authorization to discharge shall expire at midnight, June 20, 2013.

Signed this 16th day of May, 2008.

Joan Card

Joan Card, Director
Water Quality Division
Department of Environmental Quality

TABLE OF CONTENTS

PART I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. The permittee shall limit and monitor discharges from outfall 001 as specified in Table 1 which follows. These requirements are based on a design capacity of 1.0 million gallons per day (MGD).

TABLE 1: Effluent Limitations and Monitoring Requirements

Parameter	Maximum Allowable Discharge Limitations						Monitoring Requirement (4) (8)	
	Mass Limits			Concentration Limits				
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Monitoring Frequency	Sample Type
Discharge Flow (MGD)	REPORT (1)	REPORT	REPORT	---	---	---	Continuous (report monthly)	Metered
Biochemical Oxygen Demand (BOD) (5-day)	114 kg/day	170 kg/day	---	30 mg/L	45 mg/L	---	1x /every 2 weeks	24-hour Composite (5)
BOD (2)	---	---	---	85% REMOVAL MINIMUM			1x /every 2 weeks	24-hour Composite
E. Coli (3)	---	---	---	126 cfu/100 mL (3)	---	576 cfu/100 mL(3)	4X /month	Discrete
Total Suspended Solids (TSS)	114 kg/day	170 kg/day	---	30 mg/L	45 mg/L	---	1x /every 2 weeks	24-hour Composite
TSS (2)	---	---	---	85% REMOVAL MINIMUM			1x /every 2 weeks	24-hour Composite
Total Residual Chlorine (7)	.015 kg/day	---	.03 kg/day	4 ug/L	---	8 ug/L	1x /week	Discrete
pH (6)	Not less than 6.5 standard units (S.U.) nor greater than 9.0 S.U.						1x /week	Discrete

Footnotes:

(1) Monitoring and reporting required. No limit set at this time.
(2) Both the influent and the effluent shall be monitored.
(3) cfu = colony forming units. The monthly average for *E. Coli* is calculated as a geometric mean. A minimum of 4 samples are required in order to report a geometric mean. See the definition for "Monthly or Weekly Average Concentration Limit " in Appendix A.
(4) At a minimum, one sample each quarter must coincide with one of the Whole Effluent Toxicity Test (WET) samples taken each quarter. See Part IV of the permit.
(5) For this permit, "24-hour composite" has been defined as a flow-proportioned mixture of not less than three discrete samples (aliquots) obtained at equal time intervals. The volume of each aliquot shall be directly proportional to the discharge flow rate at the time of sampling.
(6) pH must be measured at the time of sampling and does not require use of a certified laboratory.
(7) Sample when chlorine or bromine compounds are used for disinfection.
(8) If discharge is infrequent see Part I.G for minimum effluent characterization monitoring requirements.

B. Trace Substance Monitoring

The permittee shall monitor discharges from outfall 001 as specified in Table 2. Data results above the Assessment Levels (ALs) listed in Table 2 do not constitute a permit violation, but may trigger evaluation of Reasonable Potential by ADEQ. The permittee shall use an approved analytical method with a Method Detection Limit (MDL) lower than the AL values per Part II.A.5.

TABLE 2: Trace Substance Monitoring Requirements

Parameter	ASSESSMENT LEVELS (1) (4)		Monitoring Requirements (2) (5)	
	Concentration (µg/L unless otherwise specified)			
	Monthly Average	Daily Maximum	Monitoring Frequency	Sample Type
Antimony	491	986	1x /month	24-hr. Composite
Arsenic	156	312	1x /month	24-hr. Composite
Beryllium	4.3	8.7	1x /month	24-hr. Composite
Cadmium (3)	2.10	4.21	1x /month	24-hr. Composite
Chromium (total)	100	146	1x /month	24-hr. Composite
Chromium (total) (6)	Report in ug/L		1x /month	Discrete
Chromium III (6)	70	140	1x /month	Calculated value (6)
Chromium VI	8	16	1x /month	Discrete
Copper (3)	8.0	16	1x /month	24-hr. Composite
Cyanide	8	16	1x /month	Discrete
Lead (3)	2.51	5.04	1x /month	24-hr. Composite
Mercury	0.2	0.3	1x /month	24-hr. Composite
Nickel (3)	49.7	100	1x /month	24-hr. Composite
Selenium	2	3	1x /month	24-hr. Composite
Silver (3)	2.4	4.7	1x /month	24-hr. Composite
Sulfides	50	100	1x /month	Discrete
Thallium	112	163	1x /month	24-hr. Composite
Zinc	68.2	137	1x /month	24-hr. Composite
Hardness ($CaCO_3$) (3)	Report	Report	1x /month	24-hr. Composite
Oil and grease	10 mg/L	15 mg/L	1x /month	Discrete

Footnotes:
(1) Concentration values are calculated based on Arizona Water Quality Standards. Monitoring and reporting required.
(2) At a minimum, one sample must coincide with one of the WET samples taken each quarter. See Part IV of the permit.
(3) Assessment levels listed are based on a default hardness of 120 mg/L as $CaCO_3$. The effluent must be tested for hardness at the same time that these metal samples are taken. Please see the hardness definition in Appendix A. Part B.
(4) All metals effluent Assessment Levels are for total recoverable metals, except for Chromium VI, for which the assessment levels listed are dissolved.
(5) If discharge is infrequent see Part I.G for minimum effluent characterization monitoring requirements.
(6) A discrete sample for Chromium total must be taken at the same time the Chromium VI discrete sample is taken in order to appropriately calculate and report the value for Chromium III.

C. After the permittee obtains at least ten monthly samples for a Table 2 listed parameter, and all results are lower than the assessment level, the permittee may request to discontinue monitoring for that parameter until quarterly in the last year of the permit. Please note that "clean methods" for mercury analyses are required to achieve detection levels sufficiently below the standard to allow for a definitive RP evaluation. Requests shall be in writing and include an electronic tabulation of all data

accrued under Table 2 and be submitted to: ADEQ, Water Permits Unit, 1110 W. Washington St., Mailcode 5415A-1, Phoenix, AZ 85007. ADEQ will evaluate the data and advise the permittee in writing if reduction in monitoring is acceptable based on an evaluation of the data. Permittees may not reduce the monitoring frequency until written approval is obtained. (The permittee is also advised data evaluation could potentially trigger a finding of Reasonable Potential with the need to modify this permit to add limits.)

D. The permittee shall monitor the discharge to characterize the facility's effluent for the parameters listed in Tables 3.a. – 3.f., whether discharging or not. If the facility discharges, monitoring is to be conducted at the frequency indicated in Tables 1 and 2. No limits or ALs are established, but the reporting level must be low enough to allow comparison of the results to the applicable water quality standards (WQS). If a reporting level below the WQS cannot be achieved, then the permittee shall use the method with the lowest method-specific MDL, as defined in Appendix A of this permit. Samples are to be representative of any seasonal variation in the discharge:

TABLE 3.a: Effluent Characterization Testing

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (1)	Sample Type
Ammonia (as N)	mg/L	1x /quarter	Discrete
Biological oxygen demand (BOD-5)	mg/L	1x /quarter	24-hour Composite
Chlorine (total residual) TRC	mg/L	1x /quarter	Discrete
Dissolved oxygen (2)	mg/L	1x /quarter	Discrete
Kjeldahl Nitrogen, Total	mg/L	1x /quarter	24-hour Composite
Nitrate/Nitrite (as Total N)	mg/L	1x /quarter	24-hour Composite
Oil and grease	mg/L	1x /quarter	Discrete
pH	S.U.	1x /quarter	Discrete
Phosphorus	mg/L	1x /quarter	24-hour Composite
Temperature (2)	°Celcius	1x /quarter	Discrete
Total dissolved solids	mg/L	1x /quarter	24-hour Composite
Total Suspended Solids	mg/L	1x /quarter	24-hour Composite

(1) If more frequent monitoring of any of these parameters is required by another part of this permit, those sampling results may be used to satisfy Table 3.a. requirements.
(2) Temperature and dissolved oxygen must be measured at the time of sampling and do not require use of a certified laboratory.

TABLE 3.b: Effluent Characterization Testing - Selected Metals (Total Recoverable)

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (1)	Sample Type
Antimony	ug/L	1x /6 months	24-hour Composite
Arsenic	ug/L	1x /6 months	24-hour Composite
Beryllium	ug/L	1x /6 months	24-hour Composite
Cadmium	ug/L	1x /6 months	24-hour Composite

TABLE 3.b: Effluent Characterization Testing - Selected Metals (Total Recoverable)

Chromium	ug/L	1x /6 months	24-hour Composite
Chromium VI	ug/L	1x /6 months	Discrete
Copper	ug/L	1x /6 months	24-hour Composite
Lead	ug/L	1x /6 months	24-hour Composite
Mercury	ug/L	1x /6 months	24-hour Composite
Nickel	ug/L	1x /6 months	24-hour Composite
Selenium	ug/L	1x /6 months	24-hour Composite
Silver	ug/L	1x /6 months	24-hour Composite
Thallium	ug/L	1x /6 months	24-hour Composite
Zinc	ug/L	1x /6 months	24-hour Composite
Cyanide	ug/L	1x /6 months	Discrete

(1) If more frequent monitoring of any of these parameters is required by another part of this permit, those sampling results may be used to satisfy Table 3.b. requirements.

TABLE 3.c: Effluent Characterization Testing - Selected Volatile Organic Compounds

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (1)	Sample Type
Acrolein	ug/L	1x /6 months	24-hour Composite
Acrylonitrile	ug/L	1x /6 months	24-hour Composite
Benzene	ug/L	1x /6 months	24-hour Composite
Bromoform	ug/L	1x /6 months	24-hour Composite
Carbon tetrachloride	ug/L	1x /6 months	24-hour Composite
Chlorobenzene	ug/L	1x /6 months	24-hour Composite
Chlorodibromomethane	ug/L	1x /6 months	24-hour Composite
Chloroethane	ug/L	1x /6 months	24-hour Composite
2-chloroethylvinyl ether	ug/L	1x /6 months	24-hour Composite
Chloroform	ug/L	1x /6 months	24-hour Composite
Dichlorobromomethane	ug/L	1x /6 months	24-hour Composite
1,1-dichloroethane	ug/L	1x /6 months	24-hour Composite
1,2-dichloroethane	ug/L	1x /6 months	24-hour Composite
Trans-1,2-dichloroethylene	ug/L	1x /6 months	24-hour Composite
1,1-dichloroethylene	ug/L	1x /6 months	24-hour Composite
1,2-dichloropropane	ug/L	1x /6 months	24-hour Composite
1,3-dichloropropylene	ug/L	1x /6 months	24-hour Composite
Ethylbenzene	ug/L	1x /6 months	24-hour Composite
Methyl bromide	ug/L	1x /6 months	24-hour Composite
Methyl chloride	ug/L	1x /6 months	24-hour Composite
Methylene chloride	ug/L	1x /6 months	24-hour Composite

1,1,2,2-tetrachloroethane	ug/L	1x /6 months	24-hour Composite
Tetrachloroethylene	ug/L	1x /6 months	24-hour Composite
Toluene	ug/L	1x /6 months	24-hour Composite
1,1,1-trichloroethane	ug/L	1x /6 months	24-hour Composite
1,1,2-trichloroethane	ug/L	1x /6 months	24-hour Composite
Trichloroethylene	ug/L	1x /6 months	24-hour Composite
Vinyl chloride	ug/L	1x /6 months	24-hour Composite

(1) Samples for Volatile Organic Compounds must be collected as 4 discrete samples and composited per approved methods by the laboratory running the analyses.

TABLE 3.d: Effluent Characterization Testing - Selected Acid-extractable Compounds

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency	Sample Type
P-chloro-m-cresol	ug/L	1x /6 months	24-hour Composite
2-chlorophenol	ug/L	1x /6 months	24-hour Composite
2,4-dichlorophenol	ug/L	1x /6 months	24-hour Composite
2,4-dimethylphenol	ug/L	1x /6 months	24-hour Composite
4,6-dinitro-o-cresol	ug/L	1x /6 months	24-hour Composite
2,4-dinitrophenol	ug/L	1x /6 months	24-hour Composite
2-nitrophenol	ug/L	1x /6 months	24-hour Composite
4-nitrophenol	ug/L	1x /6 months	24-hour Composite
Pentachlorophenol	ug/L	1x /6 months	24-hour Composite
Phenol	ug/L	1x /6 months	24-hour Composite
2,4,6- trichlorophenol	ug/L	1x /6 months	24-hour Composite

TABLE 3.e: Effluent Characterization Testing - Selected Base-neutral Compounds

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency	Sample Type
Acenaphthene	ug/L	1x /6 months	24-hour Composite
Acenaphthylene	ug/L	1x /6 months	24-hour Composite
Anthracene	ug/L	1x /6 months	24-hour Composite
Benzidine	ug/L	1x /6 months	24-hour Composite
Benzo(a)anthracene	ug/L	1x /6 months	24-hour Composite
Benzo(a)pyrene	ug/L	1x /6 months	24-hour Composite
3,4 benzofluoranthene	ug/L	1x /6 months	24-hour Composite
Benzo(ghi)perylene	ug/L	1x /6 months	24-hour Composite
Benzo(k)fluoranthene	ug/L	1x /6 months	24-hour Composite
Bis (2-chloroethoxy) methane	ug/L	1x /6 months	24-hour Composite

Bis (2-chloroethyl) ether	ug/L	1x /6 months	24-hour Composite
Bis(2-chloroisopropyl) ether	ug/L	1x /6 months	24-hour Composite
Bis (2-ethylhexyl) phthalate	ug/L	1x /6 months	24-hour Composite
4-bromophenyl phenyl ether	ug/L	1x /6 months	24-hour Composite
Butyl benzyl phthalate	ug/L	1x /6 months	24-hour Composite
2-chloronaphthalene	ug/L	1x /6 months	24-hour Composite
4-chlorophenyl phenyl ether	ug/L	1x /6 months	24-hour Composite
Chrysene	ug/L	1x /6 months	24-hour Composite
Di-n-butyl phthalate	ug/L	1x /6 months	24-hour Composite
Di-n-octyl phthalate	ug/L	1x /6 months	24-hour Composite
Dibenzo(a,h)anthracene	ug/L	1x /6 months	24-hour Composite
1,2-dichlorobenzene	ug/L	1x /6 months	24-hour Composite
1,3-dichlorobenzene	ug/L	1x /6 months	24-hour Composite
1,4-dichlorobenzene	ug/L	1x /6 months	24-hour Composite
3,3-dichlorobenzidine	ug/L	1x /6 months	24-hour Composite
Diethyl phthalate	ug/L	1x /6 months	24-hour Composite
Dimethyl phthalate	ug/L	1x /6 months	24-hour Composite
2,4-dinitrotoluene	ug/L	1x /6 months	24-hour Composite
2,6-dinitrotoluene	ug/L	1x /6 months	24-hour Composite
1,2-diphenylhydrazine	ug/L	1x /6 months	24-hour Composite
Fluoranthene	ug/L	1x /6 months	24-hour Composite
Fluorene	ug/L	1x /6 months	24-hour Composite
Hexachlorobenzene	ug/L	1x /6 months	24-hour Composite
Hexachlorobutadiene	ug/L	1x /6 months	24-hour Composite
Hexachlorocyclopentadiene	ug/L	1x /6 months	24-hour Composite
Hexachloroethane	ug/L	1x /6 months	24-hour Composite
Indeno(1,2,3-cd)pyrene	ug/L	1x /6 months	24-hour Composite
Isophorone	ug/L	1x /6 months	24-hour Composite
Naphthalene	ug/L	1x /6 months	24-hour Composite
Nitrobenzene	ug/L	1x /6 months	24-hour Composite
N-nitrosodi-n-propylamine	ug/L	1x /6 months	24-hour Composite
N-nitrosodimethylamine	ug/L	1x /6 months	24-hour Composite
N-nitrosodiphenylamine	ug/L	1x /6 months	24-hour Composite
Phenanthrene	ug/L	1x /6 months	24-hour Composite
Pyrene	ug/L	1x /6 months	24-hour Composite
1,2,4-trichlorobenzene	ug/L	1x /6 months	24-hour Composite

TABLE 3.f: Effluent Characterization Testing Based on Designated Uses

Additional Parameters from the Arizona Surface Water Quality Standards, Appendix A: Tables 1 & 2

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency	Sample Type
Alachlor	ug/L	1x /year 2,3,4	24-hour Composite
Aldrin	ug/L	1x /year	24-hour Composite
Atrazine	ug/L	1x /year 2,3,4	24-hour Composite
Carbofuran (Furadan)	ug/L	1x /year 2,3,4	24-hour Composite
Chlordane	ug/L	1x /year	24-hour Composite
1,2-cis-Dichloroethylene	ug/L	1x /year	24-hour Composite
Dalapon	ug/L	1x /year 2,3,4	24-hour Composite
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1x /year	24-hour Composite
1,2-Dibromoethane (EDB) Ethylene dibromide	ug/L	1x /year	24-hour Composite
4,4-DDD (p,p,- Dichlorodiphenyldicholoroethane)	ug/L	1x /year	24-hour Composite
4,4-DDE (p,p- Dichlorodiphenyldichloroethylene)	ug/L	1x /year	24-hour Composite
4,4-DDT ((p,p- Dichlorodiphenyltrichloroethane)	ug/L	1x /year	24-hour Composite
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/L	1x /year 2,3,4	24-hour Composite
Dieldrin	ug/L	1x /year	24-hour Composite
Di (2-ethylhexyl) adipate	ug/L	1x /year	24-hour Composite
Dinoseb	ug/L	1x /year 2,3,4	24-hour Composite
Diquat	ug/L	1x /year 2,3,4	24-hour Composite
Endosulfan sulfate	ug/L	1x /year	24-hour Composite
Endosulfan (Total)	ug/L	1x /year	24-hour Composite
Endothall	ug/L	1x /year 2,3,4	24-hour Composite
Endrin	ug/L	1x /year	24-hour Composite
Endrin aldehyde	ug/L	1x /year	24-hour Composite
Fluoride	ug/L	1x /year	24-hour Composite
Glyphosate	ug/L	1x /year 2,3,4	24-hour Composite
Heptachlor	ug/L	1x /year	24-hour Composite
Heptachlor epoxide	ug/L	1x /year	24-hour Composite
Hexachlorocyclohexane alpha Alpha-BHC	ug/L	1x /year	24-hour Composite
Hexachlorocyclohexane beta	ug/L	1x /year	24-hour Composite
Hexachlorocyclohexane delta	ug/L	1x /year	24-hour Composite
Hexachlorocyclohexane gamma (lindane)	ug/L	1x /year	24-hour Composite
Manganese	ug/L	1x /year	24-hour Composite
Methoxychlor	ug/L	1x /year 2,3,4	24-hour Composite

Oxamyl	ug/L	1x /year 2,3,4	24-hour Composite
Pichloram	ug/L	1x /year 2,3,4	24-hour Composite
Polychlorinatedbiphenyls (PCBs)	ug/L	1x /year	24-hour Composite
Simazine	ug/L	1x /year 2,3,4	24-hour Composite
Styrene	ug/L	1x /year	24-hour Composite
Sulfides	ug/L	1x /year	24-hour Composite
2,3,7,8-Tetrachlorodibenzo-p-dioxin	ug/L	1x /year	24-hour Composite
Toxaphene	ug/L	1x /year	24-hour Composite
2-(2,4,5,-Trichlorophenoxy) Proprionic Acid	ug/L	1x /year 2,3,4	24-hour Composite
Xylene	ug/L	1x /year	24-hour Composite

E. The permittee shall monitor discharges from outfall 001 for Whole Effluent Toxicity (WET) as specified in Table 4 which follows. If chronic toxicity is detected above an Action Level specified as follows or an acute test fails, the permittee must perform follow-up testing and, as applicable, follow the TIE/TRE processes in Part IV.E of the permit.

TABLE 4: WET Testing

Effluent Characteristic (1)	Action Levels		Monitoring Requirements (6)	
	Monthly Median (3)	Daily Maximum (2) (3)	Monitoring Frequency	Sample Type
Acute Toxicity *Pimephales promelas* (Fathead minnow)	N/A	Fail	1x /quarter (5)	24-hr Composite
Acute Toxicity *Ceriodaphnia dubia* (Water flea)	N/A	Fail	1x /quarter (5)	24-hr Composite
Chronic Toxicity *Raphidocelis subcapitata* (Green algae) (4)	1.0 TUc	1.6 TUc	1x /quarter	24-hr Composite
Chronic Toxicity *Pimephales promelas* (Fathead minnow)	1.0 TUc	1.6 TUc	1x /quarter	24-hr Composite
Chronic Toxicity *Ceriodaphnia dubia* (Water flea)	1.0 TUc	1.6 TUc	1x /quarter	24-hr Composite

Footnotes:
(1) See Part IV for additional information on requirements for testing and reporting Whole Effluent Toxicity (WET).
(2) Since completion of one Chronic WET test takes more than 24 hours, the daily maximum of WET is considered to be the highest allowable test result.
(3) Any exceedance of these values will require follow-up testing by the permittee. See Part IV.E of the permit for details
(4) Also known as *Selenastrum capricornutum.*
(5) The requirement for an acute test applies when duration of discharge doesn't allow for chronic tests to be conducted. See Part IV.
(6) If discharge is infrequent see Part I.G for minimum effluent characterization monitoring requirements.

F. After the permittee obtains a minimum of ten samples for chronic toxicity for each species without showing any exceedances of daily maximums or monthly averages, the permittee may request to discontinue further sampling until quarterly in the last year. Any request shall include results of all WET testing conducted and be submitted to:

Arizona Department of Environmental Quality
Surface Water Permits Unit, Mailcode: 5415A-1
1110 W. Washington St.
Phoenix, AZ, 85007

ADEQ will evaluate the data to determine if the monitoring reduction is warranted. The permittee shall not reduce the monitoring frequency until written approval from ADEQ is obtained.

G. If the permittee does not discharge through outfall 001 during the intervals specified for monitoring in Tables 1-4 above, the permittee shall analyze a minimum of one representative sample of the treated effluent at the following minimum frequencies, for each of the parameters in the Tables 1-4 as follows :

Table 1: one sample each quarter
Table 2: one sample every 6 months (same as Table 3.b)
Table 3.a – 3.f as shown in tables
Table 4: four chronic tests on all three species during the permit term- one in summer, winter, spring, and fall.

Data for these samples must be reported as described in Part II.B.

H. The discharge shall be free from pollutants in amounts or combinations that:

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

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

3. Cause off-flavor in aquatic organisms;

5. Are toxic to humans, animals, plants or other organisms;

6. 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;

I. The discharge shall be free from oil, grease and other pollutants that float as debris, foam, or scum; or that cause a film or iridescent appearance on the surface of the water; or that cause a deposit on a shoreline, bank or aquatic vegetation.

J. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations:

1. Influent samples shall be taken after the last addition to the collection system and prior to the first treatment process.

2. Effluent samples shall be taken downstream from the last treatment process and prior to mixing with the receiving waters.

K. The discharge shall not cause the pH of the receiving water to change more than 0.5 standard units.

L. The discharge shall not cause an increase in the ambient water temperature of more than 3.0 degrees Celsius.

M. The discharge shall not cause the dissolved oxygen concentration in the receiving water to fall below 3 mg/L from 3 hours after sunrise to sunset, unless the percent saturation of oxygen remains equal to or greater than 90%.

PART II. MONITORING AND REPORTING

A. Sample Collection and Analysis

1. Quality Assurance (QA) Manual
The permittee shall keep a QA Manual at the facility that describes the sample collection and analyses processes. If the facility collects samples or conducts sample analyses in-house, the permittee shall develop the QA Manual. If a third party collects and/or analyzes samples on behalf of the permittee, the permittee shall obtain a copy. The QA Manual shall be available for review by ADEQ/ADHS upon request. The permittee is responsible for the quality and accuracy of all data required under this permit. The QA Manual shall be updated as necessary, and shall describe the following:

   a. Project Management, including roles and responsibilities of the participants; purpose of sample collection; matrix to be sampled; the analytes or compounds being measured; applicable regulatory or permit-specific limits or Assessment Levels; and personnel qualification requirements for collecting samples.

   b. Sample collection procedures; equipment used; the type and number of samples to be collected including QA/QC samples (i.e., background samples, duplicates, and equipment or field blanks); preservatives and holding times for the samples (see methods under 40 CFR 136 or 9 A.A.C. 14, Article 6 or any condition within this permit that specifies a particular test method.)

   c. Approved analytical method(s) to be used; Method Detection Limits (MDLs) and Minimum Levels (MLs) to be reported; required quality control (QC) results to be reported (e.g., matrix spike recoveries, duplicate relative percent differences, blank contamination, laboratory control sample recoveries, surrogate spike recoveries, etc.) and acceptance criteria; and corrective actions to be taken by the permittee or the laboratory as a result of problems identified during QC checks.

   d. How the permittee will: perform data review; report results to ADEQ; resolve data quality issues; and identify limitations on the use of the data.

2. Sample collection, preservation and handling shall be performed as described in 40 CFR 136 including the referenced Editions of *Standard Methods for the Examination of Water and Wastewater*. Where collection, preservation and handling procedures are not described in 40 CFR 136, the procedures specified under 9 A.A.C. 14, Article 6 methods for wastewater samples shall be used. (The permittee shall outline the proper procedures in the QA Manual, and samples taken to meet the monitoring requirements in this permit must conform with these

procedures whether collection and handling is performed directly by the permittee or contracted to a third-party.)

3. All samples collected for monitoring must be analyzed:

   a. by a laboratory that is licensed by the ADHS Office of Laboratory Licensure and Certification, and that has demonstrated proficiency within the last 12 months for each parameter to be sampled under the terms of this permit, under R9-14-609. This requirement does not apply to parameters that must be analyzed for at the time of sampling and which are therefore exempt under A.A.C. R 9-14-602. These parameters include flow, dissolved oxygen, pH, temperature, and total residual chlorine.

   b. using a method specified in this permit. If no test procedure is specified within this permit, then the permittee shall analyze the pollutant using:
      i. a test procedure listed in 40 CFR 136;
      ii. an alternative test procedure approved by the EPA as provided in 40 CFR 136;
      iii. a test procedure listed in 40 CFR 136, with modifications allowed by the EPA and approved as a method alteration by the ADHS under A.A.C. R9-14-610(B); or
      iv. If a test procedure for a pollutant is not available under subparagraphs (3)(b)(i) through (3)(b)(iii), a test procedure listed in A.A.C. R9-14-612 or approved under A.A.C. R9-14-610(B) for wastewater may be used, except the use of Hach Methods is not allowed unless otherwise specified in this permit. If there is no approved wastewater method for a parameter, any other method identified in 9 A.A.C. 14, Article 6 that will achieve appropriate detection limits may be used to analyze that parameter.

   c. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods.

4. Because of the short holding time for chlorine, samples may be analyzed on-site using Hach Method No. 10014. Other Hach Methods are also acceptable for chlorine if the method has an MDL lower than effluent limitations specified in this permit.

5. The permittee shall use an analytical method with a Method Detection Limit (MDL, as defined in Appendix A of this permit) that is lower than the effluent limitations, Assessment Levels, Action Levels, or water quality criteria specified in this permit. **If all method-specific MDLs are higher than the limits specified in this permit, the permittee shall use the approved analytical method with the lowest method-specific MDL.**

6. The permittee shall use a standard calibration where the lowest standard point is equal to or less than the Minimum Level (ML) as defined under 40 CFR 136. When a method-specific ML is not available 40 CFR 136, the *interim* ML (see Appendix A- definitions) is to be used for calibration.

   When neither a ML nor MDL is promulgated under 40 CFR 136, the Laboratory ML, (as defined in Appendix A) shall be used for calibration.

7. In accordance with 40 CFR 122.45(c), effluent analyses for all metals, with the exception of chromium VI, shall be measured as "total recoverable metals". Effluent levels in this permit are for total recoverable metals, except for Chromium VI, for which the levels listed are dissolved.

B. Reporting of Monitoring Results

1. The permittee shall report monitoring results on Discharge Monitoring Report (DMR) forms supplied by ADEQ, to the extent that the results reported may be entered on the forms. The permittee shall submit results of all monitoring required by this permit in a format that will allow direct comparison with the limitations and requirements of this permit. If no discharge occurs during the reporting period, the permittee shall specify "No discharge" on the DMR. The results of effluent characterization monitoring required by Tables 1 through 4 taken at a representative sample point do not have to be submitted on DMRs if the samples are collected when the facility is not discharging. These sample results must be submitted as an attachment to the DMRs that indicate "No discharge".

   The permittee shall submit (see Appendix A- definitions) DMRs by the 28th day of the month following the end of any given monitoring period. For example, if the monitoring period ends January 31st, the permittee shall submit the DMR by February 28th. The permittee shall submit original copies of these and all other reports required in this Part, signed by an authorized representative, to ADEQ at the following address:

   ADEQ Water Quality Compliance Section
   Data Unit Mailcode: 5415B-1
   1110 W. Washington
   Phoenix, AZ 85007

   For each month, a copy of the **AZPDES Discharge Flow Record** (found in Appendix B) is to be completed and submitted with the DMR for that month, along with copies of the original lab results for all parameters monitored during the reporting period.

2. Whenever sampling is done for ammonia, sampling must be done for temperature and pH concurrently and reported on the **Ammonia Data Log** (found in Appendix C) and submitted as per Part II.B.(1) above.

3. The permittee shall participate in the annual NPDES DMR/QA study and submit the results of this study to ADEQ and ADHS for all laboratories used in monitoring compliance with this permit.

4. For the purposes of reporting, the permittee shall use the reporting threshold equivalent to the method-specific ML. If there is no method-specific ML promulgated, the laboratory's ML shall be used.

5. For parameters with Daily Maximum Limits or Daily Maximum Assessment Levels specified in this permit, the permittee shall review the results of all samples collected during the reporting period and report:

For Daily Maximum Limits/Assessment Levels	The Permittee shall Report on the DMR
When the maximum value of any analytical result is greater than the ML (e.g., method-specific ML if one exists, or if not, the laboratory's ML)	The maximum value of all analytical results
When the maximum value detected is greater than or equal to the laboratory's MDL, but less than the ML;	*NODI (Q)*[1]
When the maximum value is less than the laboratory's MDL.	*NODI (B)* [2]

(1) NODI(Q) means Not Quantifiable
(2) NODI(B) means Below Detection

6. For parameters with Monthly Average Limits or Monthly Average Assessment Levels specified in this permit, the permittee shall review the results of all samples collected during the reporting period and report:

For Monthly Average Limits/Assessment Levels		The Permittee shall Report on the DMR
If only one sample is collected during the reporting period (monthly, quarterly, annually, etc.) (In this case, the sample result is the monthly average.)	When the value detected is greater than the ML (e.g., method-specific ML if one exists, or if not, the laboratory's ML)	the analytical result
	When the value detected is greater than or equal to the laboratory's MDL, but less than the ML;	*NODI (Q)*[1]
	When the value is less than the laboratory's MDL.	*NODI (B)* [2]
If more than one sample is collected during the reporting period	All samples collected in the same calendar month must be averaged. ▪ When all results are greater than the ML, all values are averaged ▪ When calculating monthly averages where some samples have non-numeric results, substitute the laboratory's MDL for NODI(Q) and substitute "0" for NODI(B).	the highest monthly average which occurred during the reporting period

(1) NODI(Q) means Not Quantifiable
(2) NODI(B) means Below Detection

7. If the information below is not provided on the laboratory reports required in Part II.B.1, the permittee shall attach a report to each DMR that includes the following for all analytical results during the reporting period:

   a. The analytical result.

   b. The number or title of the approved analytical method, preparation and analytical procedure utilized by the laboratory, and method-specific MDL or method-specific ML of the analytical method for the pollutant. When no method-specific ML exists, the laboratory derived ML shall be reported.

   c. The levels at which any results are reported as either *NODI(B)* or *NODI(Q)*.

   d. Any applicable data qualifiers using Arizona Data Qualifiers Revision 2 (11/26/2003).

C. Twenty-four Hour Reporting of Noncompliance

The permittee shall orally report any noncompliance which may endanger the environment or human health within 24 hours from the time the permittee becomes aware of the event to:

ADEQ 24 hour hotline at 602-771-2330

The permittee shall also notify the Water Quality Compliance Section Manager at (602) 771-2209 by phone call or voice mail by 9 a.m. on the first business day following the noncompliance. The permittee shall also notify the Water Quality Compliance Section in writing within 5 days of the noncompliance event. The permittee shall include in the written notification a description of the noncompliance and its cause; the period of noncompliance, including dates and times, and, if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

D. Monitoring Records

The permittee shall retain the following monitoring information:

1. Date, exact location and time of sampling or measurements performed, preservatives used;
2. Individual(s) who performed the sampling or measurements;
3. Date(s) the analyses were performed;
4. Laboratory(s) which performed the analyses;
5. Analytical techniques or methods used;
6. Chain of custody forms;
7. Any comments, case narrative or summary of results produced by the laboratory. These comments should identify and discuss QA/QC analyses performed concurrently during sample analyses and should specify whether analyses met project requirements and 40 CFR 136. The summary of results must include information on initial and continuing calibration, surrogate analyses, blanks, duplicates, laboratory control samples, matrix spike and matrix spike duplicate results, sample receipt condition, holding times and preservation.
8. Summary of data interpretation and any corrective action taken by the permittee.
9. Effluent Limitations or Assessment Levels for analytes/compound being analyzed.

PART III. BIOSOLIDS REQUIREMENTS

Note: "Biosolids" refers to non-hazardous sewage sludge as defined in 40 CFR 503.9 and Arizona Administrative Code (A.A.C.) R18-9-1001(7). Sewage sludge that is hazardous as defined in 40 CFR 261 must be disposed of in accordance with the Resource Conservation and Recovery Act (RCRA). Sludge with PCB (polychlorinated biphenyls) levels greater than 50 mg/kg must be disposed of in accordance with 40 CFR 761.

A. Use or Disposal Requirements

All biosolids generated by the permittee shall be used or disposed of in compliance with the applicable portions of 18 A.A.C. Chapter 9, Article 10 and

1. 40 CFR 503 Subpart C: for biosolids that are placed on the land (surface disposal) for the purpose of disposal (dedicated land disposal sites or monofills)

2. 40 CFR 258: for biosolids disposed of in municipal solid waste landfills; and

3. 40 CFR 257: for all biosolids use and disposal practices not covered under 40 CFR 258 or 503.

B. Biosolids Preparer's Responsibility

The permittee is responsible for assuring that all sewage and biosolids produced at its facility are used or disposed of in accordance with 40 CFR 503 Subpart C, 257, 258 and 18 A.A.C. Chapter 9, Article 10, as applicable, whether the permittee uses or disposes of the biosolids itself or transfers them to another party for further treatment, use, or disposal. The permittee is responsible for informing subsequent preparers, appliers, and disposers of the requirements that they must meet under the requirements of 18 A.A.C. Chapter 9, Article 10.

C. Duty to Mitigate

The permittee shall take all reasonable steps to prevent or minimize any biosolids use or disposal which has a likelihood of adversely affecting human health or the environment.

D. General Management Practices and Requirements

The permittee shall ensure that:

1. No biosolids enter wetlands or other waters of the United States.

2. Biosolids treatment, storage, use or disposal does not contaminate groundwater.

3. Biosolids treatment, storage, and use or disposal does not create a nuisance such as malodorous smell or attraction of flies or other disease carrying vectors.

4. If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist develops a groundwater monitoring program for the site, or certifies that the placement of biosolids on the site will not contaminate any aquifer. *[Note:*

land treatment and surface disposal sites for biosolids must be permitted under the aquifer protection program per A.A.C. R18-9-1002(E)(2), or as a municipal solid waste landfill. The permittee shall determine the site has appropriate permits before directing biosolids to surface disposal.]

E. Biosolids Storage

1. If biosolids are stored for over two years from the time they are generated, the permittee shall comply with all the requirements for surface disposal under 40 CFR 503 Subpart C, or shall submit a written notification to the ADEQ Biosolids Coordinator with the information in 40 CFR 503.20(b), that demonstrates the need for longer temporary storage.

2. If biosolids are removed from the permittee's facility, but will be stored for less than two years from the time they are generated, the permittee shall submit information to ADEQ on the storage location and date of final use or disposal.

F. Surface Water Protection

The permittee shall ensure all treatment, disposal, or storage sites that receive its biosolids are designed and operated to: divert surface runoff from adjacent areas; protect the site boundaries from erosion; and prevent any drainage that has contacted biosolids from escaping the site. These features shall be designed to be protective for a 25-year 24-hour storm event.

G. Facilities with Pretreatment Programs – Not Applicable

H. Inspection and Entry

The permittee shall allow authorized representatives of ADEQ or EPA, directly or through contractual arrangements with their biosolids management contractors, to:

1. Enter upon all premises where biosolids produced by the permittee are treated, stored, used, or disposed, either by the permittee or by another party to whom the permittee transfers the biosolids for treatment, storage, use, or disposal;

2. Have access to and copy any records that must be kept under the conditions of this permit, of 18 A.A.C. Chapter 9 Article 10, (including those in 40 CFR 503, Subpart C) by the permittee or by another party to whom the permittee transfers the biosolids for further treatment, storage, use, or disposal; and

3. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in the biosolids treatment, storage, use, or disposal by the permittee or by another party to whom the permittee transfers the biosolids for treatment, use, or disposal.

I. Biosolids Monitoring

Monitoring shall be conducted as follows:

1. Metals Concentrations

a. Biosolids shall be tested for the following metals at the frequency indicated in the following table:

Pollutant	Ceiling Concentrations (milligrams per kilogram dry-weight basis)	Monthly Average Pollutant Concentration Levels (1) (milligrams per kilogram dry-weight basis)	Minimum Testing Frequency per Volume Generated
Arsenic	75.0	41.0	0 -290 dry metric tons - 1x /year 290 -1500 dry metric tons - 1x /quarter 1500 -15,000 dry metric tons - 1x /60 days > 15,000 dry metric tons - 1x /month
Cadmium	85.0	39.0	
Chromium	3000.0	NA	
Copper	4300.0	1500.00	
Lead	840.0	300.00	
Mercury	57.0	17.0	
Molybdenum	75.0	NA	
Nickel	420.0	420.00	
Selenium	100.0	100.0	
Zinc	7500.0	2800.00	

(1) Maximum Levels allowed for "Exceptional Quality" Biosolids

b. The permittee shall not sell, give away, or deposit bulk biosolids on the ground at the WWTP or any other land site with pollutant concentrations that exceed any of the Ceiling Concentrations in the preceding table.

c. If any pollutant concentration exceeds the Ceiling Concentration, the permittee must:

i. find alternative disposal methods for the biosolids represented by that sampling event; and
ii. identify the source of the pollutants and take appropriate source control measures.

d. Exceptional Quality Biosolids (EQB) must meet the metal concentrations as indicated in the table in Part III.I.1.a. During the first two years of this permit, prior to selling or giving away any biosolids for uses requiring an EQB classification the permittee must submit the results of metals testing to the ADEQ Biosolids Coordinator.

2. **Nitrogen Testing.** The permittee shall ensure that biosolids to be land applied are tested for organic-N, ammonium-N, and nitrate-N at the frequencies in Part III.I.8.

3. **Sampling and Analyses Methods.** The permittee shall ensure biosolids are tested using the methods specified in 40 CFR 503.8, as required in A.A.C. R18-9-1012(G). Testing must be

performed at a laboratory operating in compliance with A.R.S. 36-495. Because of the potential for regrowth of pathogens, for Class A or EQB biosolids, samples demonstrating pathogen reduction shall be taken within 30 days of the time the biosolids are shipped off-site so verification that requirements are met is obtained before the biosolids leave the site.

4. **Testing Accumulated Biosolids.** If biosolids have been accumulated on-site, the permittee shall develop a sampling plan to characterize those sludges. The plan shall detail the number of samples to be taken and the location of sampling points that will enable samples that are representative of the biosolids in each on-site pile or windrow to be collected. For biosolids to be shipped off-site as Class A or EQB, the plan must address sampling of each windrow or pile separately and include at least 1 sample for each 0- 290 dry metric ton increments. More sampling is appropriate when the biosolids are inconsistent in nature or non-uniformly treated. The permittee must collect and analyze representative samples per the sampling plan before shipment off-site.

5. **Sampling Results.** Test results for all sludge sampling shall be expressed in milligram of pollutant per kilogram (mg/kg) of biosolids on a 100% dry weight basis.

6. **Pathogen Reduction.**
   a. Prior to deposition on the ground at the WWTP or any other land site, the permittee shall document the methods used to demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed in A.A.C. R18-9-1006.

   b. Biosolids that are sold or given away in a bag or other container, shall meet the Class A pathogen reduction requirements established in A.A.C. R18-9-1006(D). The permittee shall document the pathogen treatment option used to achieve Class A biosolids and the fecal coliform or *Salmonella sp.* density. Note: Class A biosolids may have no detectable levels of *Salmonella.*

   c. If solar drying or another Alternative 4 pathogen treatment option is used to achieve Class A or EQB, the permittee shall test its biosolids for enteric virus density and helminth ova density in addition to fecal coliform or *Salmonella sp.* density to ensure protection of human health

   d. Prior to disposal in a surface disposal site, the permittee shall demonstrate that the biosolids have been treated using either a Class A or Class B pathogen reduction method or shall ensure that biosolids placed in the surface disposal site are covered at the end of each operating day.

   e. If pathogen reduction is demonstrated using a Class A or Class B pathogen reduction method specified in A.A.C. R18-9-1006, the permittee shall maintain daily records of the operating parameters used to achieve this reduction. If pathogen reduction is demonstrated by testing for fecal coliforms and/or pathogens, samples must be at a minimum analyzed at the frequency in Part III.I.8 of the permit.

      - For fecal coliform, in order to demonstrate Class B pathogen reduction, at least seven separate and representative samples must be collected and analyzed during each

monitoring event. A geometric mean is to be calculated from the results of the seven samples. The geometric mean must be <2,000,000 cfu or mpn/gram.

- For fecal coliform, in order to demonstrate Class A pathogen reduction, at least seven separate and representative samples must be collected and analyzed during each monitoring event (a 14 day interval); all seven samples must be less than 1,000 cfu ormpn/gram.

f. Biosolids must meet Class A or B pathogen reduction at the time they leave the permittee's site, unless they are being transported to: a) a municipal landfill; b) a preparer, for further treatment, who has submitted a 2S permit application to ADEQ; or c) a surface disposal site which has submitted a 2S permit application form to ADEQ.

7. **Vector Attraction Reduction.**

a. Prior to depositing biosolids on the ground at the WWTP or any other land site, the permittee shall ensure that the biosolids meet, and retain records of the operational parameters used to achieve, Vector Attraction Reduction requirements in A.A.C. R18-9-1010.

b. The permittee shall ensure, and keep documentation that, all biosolids that are sold or given away in a bag or other container, meet one of the vector attraction reduction alternatives established in A.A.C. R18-9-1010 subsections (A)(1) through (A)(8).

8. **Self-monitoring.**

Unless otherwise specified in this permit, the permittee shall conduct self-monitoring events at the minimum frequencies listed in the table that follows for any sampling required in Part III of this permit.

Volume Generated	Monitoring Frequency
0-290 dry metric tons	Once per year
290-1500 dry metric tons	Once per quarter
1500-15,000 dry metric tons	Once per 60 days
over 15,000 dry metric tons	Once per month

9. **On-site Management Plan**

a. The permittee shall submit within 180 days of permit issuance, a Management Plan (Plan) for the on-site management operations. This Plan shall detail how sludge/biosolids are managed from the time that they are generated at the facility until they are shipped off-site. The Plan must give specific protocols to be followed to ensure that the material generated at this facility will consistently meet all applicable requirements at 18 A.A.C. Chapter 9, Article 10 and 40 CFR Part 503 Subpart C and the provisions of this permit.

b. The Plan must address issues of potential concern such as storage areas; run-off; odor and dust control; and include a professional diagram of facilities/areas used in the operation and the area surrounding the operation. The plan shall also specify how and when representative samples of biosolids will be taken. The permittee shall also have a contingency plan for managing sludge when pathogens or pollutant levels are exceeded.

10. **Testing for Hazardous Waste Determination.** The permittee shall test generated biosolids at least annually, and more frequently as necessary, to determine if biosolids are hazardous in accordance with 40 CFR 261.

11. **Other Testing for Disposal in a Landfill.** Biosolids placed in a municipal landfill shall be tested by the Paint Filter Test (method 9095) at the frequency in Part III.I.8 above or more often as necessary to demonstrate that there are no free liquids.

J. Record Keeping

1. The permittee shall collect and retain all the information outlined in A.A.C. R18-9-1013.A(1) through A(6) for at least five years.

2. The permittee shall keep analytical test results and all documentation that supports the biosolids classification on-site and available for review.

3. All records required for retention are subject to periodic inspection, and copying by ADEQ.

K. Notification Requirements

The permittee, either directly or through contractual arrangements with their biosolids management contractors, shall comply with the following:

1. **Notification of Non-compliance.**
   a. The permittee shall notify ADEQ of any non-compliance with this permit or with the provisions of 18 A.A.C. Chapter 9 Article 10, which may endanger health or the environment. The permittee shall provide the information orally within 24 hours from the time the permittee becomes aware of the circumstances.

   b. For other instances of non-compliance with the biosolids provisions, the permittee shall notify ADEQ in writing within five working days of becoming aware of the circumstances.

   c. Permittees shall require their biosolids management contractors to notify ADEQ of any non-compliance within the time-frames specified in Part III.K.1.a and III.K.1.b.

2. **Notification of Shipment to Another State.** If biosolids are shipped to another State or to Indian Lands, the permittee must send a notice of the shipment to the permitting authorities in the receiving State or Indian Land (the EPA Regional Office for that area and the State/Indian authorities) with a copy to the Biosolids Coordinator at least 60 days before the biosolids are shipped.

3. **Notification of Land Application.** Prior to application of any biosolids from this facility on a new or previously unreported site, the permittee shall notify the ADEQ Biosolids Coordinator. The notification shall include a description and topographic map of the proposed site(s), slope of land surface, names and addresses of the applier and site owner, and a listing of any state or local permits which must be obtained. The plan shall include a description of the crops or vegetation to be grown, proposed loading rates and determination of agronomic rates. Additionally, if biosolids are to be land applied in Arizona, applicators must complete and submit to the ADEQ Biosolids Coordinator, a Request for Registration form per A.A.C. R18-9-1004.

4. **Additional Notice for Land Application of Biosolids with High Metals.** If within a given monitoring period, biosolids do not meet any of the Monthly Average Pollutant Concentration limits, the permittee must notify the ADEQ Biosolids Coordinator and any contractors that will be handling the biosolids. The permittee shall ensure that its high metal biosolids will not be applied to a site if it could cause any of the cumulative metals loadings to be exceeded per A.A.C. R18-9-1005(D)(2).

5. **Permittee's Notice to Contractors who Land Apply Sludge.** The permittee shall notify the applier of all the applier's requirements under Title 18 Chapter 9 Article 10 including the requirement that the applier certify that management practices, site restrictions, and any applicable vector attraction reduction requirements have been met. For Class B biosolids used on food crops, the permittee shall require the applier to certify at the end of 38 months following application that the 38 months harvesting restrictions have been met.

6. **Notice of Surface Disposal.** Prior to disposal in a new or previously unreported surface dispsosal site, the permittee shall notify ADEQ in writing of the following information:

   a. a description and a topographic map of the proposed site,

   b. information on the depth to groundwater and whether the site is lined or unlined,

   c. the names of the site operator and site owner,

   d. whether any state or local permits are necessary and have been obtained,

   e. a description of procedures for ensuring public access and grazing restrictions until three years following site closure, and

   f. a groundwater monitoring plan or description of why groundwater monitoring is not required.

7. **Notification of Change in Disposal Practices:** The permittee shall advise the ADEQ Biosolids Coordinator in writing at least 15 days before the facility's current practices for use or disposal of biosolids change.

L. Annual Report for All Permittees

The permittee shall submit an annual biosolids report to the ADEQ Biosolids Coordinator by **February 19 of each year** for the period covering the previous calendar year. The report shall include:

1. The amount of biosolids generated that year, in dry tons or dry metric tons, and the amount accumulated from previous years,

2. Results of all biosolids analytical or process monitoring required in this permit. For pollutant monitoring, the permittee must report the results on a 100% dry weight basis and enclose the laboratory analytical reports. Provide also any process monitoring information such as time and temperature reports, etc. as applicable.

3. Descriptions of pathogen reduction methods and vector attraction reduction methods, as required in A.A.C. R18-9-1013 for land application and 40 CFR 503.27 for surface disposal, and certifications.

4. Names, mailing addresses, and street addresses of all persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, or for other use or disposal methods not covered above, and the volumes delivered to each.

5. Except for biosolids that are demonstrated to be EQ, the following information shall be submitted by the permittee for land application sites, unless the permittee requires its biosolids management contractors to report this information directly to ADEQ:

    a. Locations of land application sites (with field names and numbers) used that calendar year, size of each field applied to, applier, and site owner;

    b. Volumes applied to each field (in wet tons and dry metric tons), nitrogen applied, calculated plant available nitrogen;

    c. Crop planted, date of planting, harvesting;

    d. For any biosolids exceeding A.A.C. R18-9-1005 Table 2 metals concentrations, the locations of sites where applied and cumulative metals loading at that site to date;

    e. Certifications of management practices in A.A.C. R18-9-1007 or A.A.C. R18-9-1008; and

    f. Certifications of site restrictions in A.A.C. R18-9-1009.

6. For surface disposal sites, the following information must be submitted by the permittee, unless the permittee requires its biosolids management contractors to report this information directly to ADEQ:

    a. Locations of sites, site operator, site owner, size of parcel on which disposed;

    b. Results of any required groundwater monitoring;

c. A description of and certifications of management practices in 40 CFR 503.24; and

d. For closed sites, date of site closure and certifications of management practices for the three years following site closure.

M. Reporting Locations

1. Reports and Notifications required by Part III of this permit shall be submitted to:

ADEQ Biosolids Coordinator
Water Quality Compliance Section (5415B-1)
1110 W. Washington St.
Phoenix, AZ 85007
602-771-4612

2. Additionally, if the permittee has sent biosolids to a landfill for disposal during the reporting year, a copy of the annual report shall be sent to:

Plan Review Unit
ADEQ
Waste Programs Division
Permits Section
1110 W. Washington St.
Phoenix, AZ 85007

PART IV. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. General Conditions

1. The permittee shall conduct quarterly chronic or acute toxicity tests on 24-hour composite samples of the final effluent. The requirement to conduct chronic toxicity testing is contingent upon the frequency or duration of discharges. See Part IV.C.1 below for details. If chronic testing is conducted a separate acute test is not required. However, the acute endpoint shall be reported from the chronic test.

2. Final effluent samples must be taken following all treatment processes, including chlorination and dechlorination, and prior to mixing with the receiving water. The required WET tests must be performed on unmodified samples of final effluent. **WET tests conducted on samples that are dechlorinated after collection are not acceptable for compliance with this permit.**

3. Chemical testing for ammonia (NH_3-N) and all the parameters listed in Part I.A, Tables 1 and 2 of this permit shall be performed on [a split of the acute sample and/or a split of at least one of the three composite samples taken for each chronic WET test performed]. Analysis of the split sample(s) may be used to fulfill the monitoring requirements in Part I.A., but only for parameters whose required sample type is a composite.

4. Definitions related to toxicity are found in Appendix A.

B. Acute Toxicity

1. If the duration of the discharge during any given quarter does not allow for completion of chronic tests (see Part IV.C.1), the permittee shall conduct 96-hour acute toxicity tests with renewal at 48 hours on two species; *Ceriodaphnia dubia* and *Pimephales promelas* using 100% effluent and a control. The acute test may be completed as a non-renewal 48-hour acute test when a second sample for renewal at 48 hours cannot be taken due to a cessation of the discharge after an acute test has been initiated. [Required test duration is flexible]

2. The permittee must follow the USEPA 5th edition manual, "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012) for all acute compliance toxicity. The presence of chronic toxicity shall be estimated as specified in the method for each species tested.

3. The acute toxicity action level is any "failing" test result. The test "fails" if survival in 100% effluent is less than 90%, and is significantly different from control survival (which must be 90% or greater), as determined by hypothesis testing. Section 11.3 of the acute manual referenced above must be followed to determine Pass or Fail. Any result of "Fail" requires follow-up testing per Part IV, Section E.

4. The permittee shall report results as Pass or Fail.

C. Chronic Toxicity

1. The permittee shall conduct short-term chronic toxicity tests on three species: the waterflea, *Ceriodaphnia dubia* (survival and reproduction test); the fathead minnow, *Pimephales promelas* (larval survival and growth test); and the green alga, *Selenastrum capricornutum* (growth test). [Since completion of the chronic WET test for *Ceriodaphnia dubia* and *Pimephales promelas* requires a minimum of three samples be taken for renewals, the chronic WET test will not be required during any given quarterly period in which a discharge(s) does not occur on four consecutive calendar days. The discharge does not have to be continuous to fall under this requirement. Examples that would require chronic WET testing: 1) Continuous discharge begins on day 1 at 5pm and ends at 8am on day 4. 2) Intermittent discharges occur for six (6) hours on day 1, eight (8) hours on day 2, four (4) hours on day 3, two (2) hours on day 4.]

2. The permittee must follow the USEPA 4th edition manual, "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms" (EPA/821-R-02-013) for all chronic compliance toxicity testing.

3. The chronic toxicity action levels are any one test of 1.6 TUc or any calculated monthly median value of 1.0 TUc. If chronic toxicity is detected above these values, follow-up testing is required per Part IV, Section E. A chronic toxicity unit (TUc) shall be calculated as TUc = 100/NOEC.

4. The chronic WET test shall be conducted using a series of five dilutions and a control. The following dilution series must be used: 12.5, 25, 50, 75, 100% effluent.

D. Quality Assurance:

1. Effluent samples must be maintained between 0 and 6°C from collection until utilized in the toxicity testing procedure. When a composite sample is required, each aliquot making up the composite must be chilled after collection and throughout the compositing period. The single allowable exception is when a grab sample is delivered to the performing laboratory for test initiation no later than 4 hours following the time of collection.

2. Control and dilution water should be receiving water or lab water as appropriate, as described in the 40 CFR Part 136.3 approved method. If the dilution water used is different from the culture water, a second control, using culture water shall also be used.

3. Reference toxicity tests, (a check of the laboratory and test organisms' performance), shall be conducted at least 1 time in a calendar month for each toxicity test method conducted in the laboratory during that month. Additionally, any time the laboratory changes its source of test organisms, a reference toxicity test must be conducted before or in conjunction with the first WET test performed using the organisms from the newer source. Reference toxicant testing must be conducted using the same test conditions as the effluent toxicity tests (ie., same test duration, etc.).

4. If either the reference toxicant test or the effluent test does not meet all test acceptability criteria as specified in the 40 CFR Part 136.3 approved WET methods, then the permittee must re-sample and re-test within 14 days of receipt of the test results. The re-sampling and re-testing requirements include laboratory induced error in performing the test method.

5. The chronic reference toxicant and effluent tests must meet the upper and lower bounds on test sensitivity as determined by calculating the percent minimum significant difference (PMSD) for each test result. The test sensitivity bound is specified for each test method (see Section 10, Table 6 in EPA/821-R-02-013). There are five possible outcomes based on the PMSD result.

   a. *Unqualified Pass-* The test's PMSD is within bounds and there is no significant difference between the means for the control and the effluent. The regulatory authority would conclude that there is no toxicity.

   b. *Unqualified Fail-* The test's PMSD is larger than the lower bound (but not greater than the upper bound) in Table 6 and there is a significant difference between the means for the control and the effluent. The regulatory authority would conclude that there is toxicity.

   c. *Lacks Test Sensitivity-* The test's PMSD exceeds the upper bound in Table 6 and there is no significant difference between the means for the control and the effluent. The test is considered invalid. An effluent sample must be collected and another toxicity test must be conducted within 14 days of receipt of the test results.

   d. *Lacks Test Sensitivity-* The test's PMSD exceeds the upper bound in Table 6 and there is a significant difference between the means for the control and the effluent. The test is considered valid. The regulatory authority will conclude that there is toxicity.

e. *Very Small but Significant Difference*- The relative difference between the means for the control and effluent is smaller than the lower bound in Table 6 and this difference is statistically significant. The test is acceptable and the NOEC should be determined.

E. Toxicity Identification Evaluation (TIE)/Toxicity Reduction Evaluation (TRE) Processes

1. If a chronic toxicity is detected above an action level or an acute test fails as specified in Part I.D. Table 4 and Part IV, Sections B.3 and C.3 and the source of toxicity is known (for instance, a temporary plant upset), then the permittee shall conduct one follow-up test within two weeks of receipt of the sample results that exceeded the action level. The permittee shall use the same test and species as the failed toxicity test. If toxicity is detected in the follow-up, the permittee shall immediately begin developing a TRE plan and submit the plan to ADEQ for review and approval within 30 days after receipt of the toxic result. Requirements for the development of a TRE are listed in paragraph 3 below. The permittee must implement the TRE plan as approved and directed by ADEQ.

2. If chronic toxicity is detected above an action level or an acute test fails as specified in Part I.D. Table 4 and Part IV, Sections B.3 and C.3 and the source of toxicity is unknown, the permittee shall begin additional toxicity monitoring within two weeks of receipt of the sample results that exceeded the action level. The permittee shall conduct one WET test approximately every other week until either a test exceeds an action level or four tests have been completed. The follow-up tests must use the same test and species as the failed toxicity test. For intermittent discharges, testing shall be conducted on the next four discharge events using the same test and species as the failed toxicity test.

   a. If none of the four tests exceed a WET action level, then the permittee may return to the routine WET testing frequency specified in this permit.

   b. If a WET action level is exceeded in any of the additional tests, the permittee shall immediately begin developing a TRE plan and submit the plan to ADEQ for review and approval within 30 days after receipt of the toxic result. Requirements for the development of a TRE are listed in subsection 3, below. The permittee must implement the TRE plan as approved and directed by ADEQ.

3. The permittee shall use the EPA guidance manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants*, 1999 [EPA/833/B-99/002] in preparing a TRE plan. The TRE plan shall include, at a minimum, the following:

   a. Further actions to investigate and identify the causes of toxicity, if unknown. The permittee may initiate a TIE as part of the TRE process using the following EPA manuals as guidance: *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I,* 1992 [EPA/600/6-91/005F]; *Methods for Aquatic Toxicity Identification Evaluations: Phase I, Toxicity Characterization Procedures*, 2nd Edition, 1991 [EPA/600/6-91/003]; *Methods for Aquatic Toxicity Identification Evaluations: Phase II, Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity,* 1993 [EPA/600/R-92/080]; and *Methods for Aquatic Toxicity Identification Evaluations: Phase III, Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity,* 1993 [EPA/600/R-92/081].

b. Action the permittee will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity; and

c. A schedule for implementing these actions.

F. WET Reporting

1. The permittee shall report chronic toxicity results on DMRs in Chronic Toxicity Units (TUc). The TUc for DMR reporting shall be calculated as TUc = 100/NOEC.

2. In addition to reporting WET results on DMRs, the permittee shall submit a copy of the full lab report(s) for all WET testing conducted during the monitoring period covered by the DMR. The lab report should report TUc as 100/NOEC **and** as $100/IC_{25}$. If the lab report does not contain any of the following items, then these must also be supplied in a separate attachment to the report: 1) sample collection and test initiation dates, 2) the results of the effluent analyses for all parameters required to be tested concurrently with WET testing as defined in Part I, Tables 1 and 2, and Part IV, Section A.1. of this permit, and 3) copies of completed AZPDES Discharge Flow Records for the months in the WET monitoring period.

3. WET lab reports and any required additional attachments shall be submitted to ADEQ by the 28th day of the month following the end of the WET monitoring period, or upon request, to the following address:

Arizona Department of Environmental Quality
ADEQ Surface Water Permits Unit, Mailcode: 5415A-1
1110 W. Washington
Phoenix, AZ 85007

(NOTE: This is not the same ADEQ address as the one specified under Part II.B.1 of this permit.)

PART V. SPECIAL CONDITIONS

A. OPERATION

The permittee shall ensure that the facilities or systems are operated by or under the supervision of an operator currently certified by ADEQ at the level appropriate for the facility or system.

B. REOPENER

This permit may be modified per the provisions of A.A.C. R18-9-B906, and R18-9-A905 which incorporates 40 CFR Part 122. This permit may be reopened 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.

APPENDIX A PART A: ACRONYMs

A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
ADHS	Arizona Department of Health Services
AZPDES	Arizona Pollutant Discharge Elimination System
A.R.S.	Arizona Revised Statutes
CFR	Code of Federal Regulations
CFU	colony forming units
Director	The Director of ADEQ or any authorized representative thereof
DMR	Discharge Monitoring Report
EPA	The U.S. Environmental Protection Agency
kg/day	kilograms per day
MGD	million gallons per day
mg/L	milligrams per Liter, also equal to parts per million (ppm)
MPN	Most Probable Number
NPDES	National Pollutant Discharge Elimination System
QA	quality assurance
ug/L	micrograms per Liter, also equal to parts per billion (ppb)

APPENDIX A PART B: DEFINITIONS

ACUTE TOXICITY TEST is a test used to determine the concentration of effluent or ambient waters that produces an adverse effect (lethality) on a group of test organisms during a short-term exposure (e.g., 24, 48, or 96 hours). Acute toxicity is measured using statistical procedures (e.g., point estimate techniques or hypothesis testing) and is reported as PASS/FAIL or in TUas, where TUa = $100/LC_{50}$.

ACUTE-to-CHRONIC RATIO (ACR) is the ratio of the acute toxicity of an effluent or a toxicant to its chronic toxicity. It is used as a factor for estimating chronic toxicity on the basis of acute toxicity data, or for estimating acute toxicity on the basis of chronic toxicity data.

CHRONIC TOXICITY TEST is a test in which sublethal effects (e.g., reduced growth or reproduction) are measured in addition to lethality. Chronic toxicity is measured as TUc = 100/NOEC or TUc = 100/Ecp or 100/ICp. The ICp and ECp value should be the approximate equivalent of the NOEC calculated by hypothesis testing for each test method.

COMPOSITE SAMPLE means a mixture of two or more discrete samples (aliquots) obtained at equal time intervals (e.g., 24-hour composite may be three samples collected eight hours apart, four samples six hours apart, or eight samples collected three hours apart) or collected proportional to the flow rate over the compositing period. This permit may further specify the number of samples to be composited, the timing of the samples, and the volume of each aliquot to be collected.

DAILY MAXIMUM CONCENTRATION LIMIT means the maximum allowable discharge of a pollutant in a calendar day as measured on any single discrete sample or composite sample.

DAILY MAXIMUM MASS LIMIT means the maximum allowable total mass of a pollutant discharged in a calendar day.

DISCRETE or GRAB SAMPLE means an individual **sample of at least 100 mL** collected from a single location, or over a period of time not exceeding 15 minutes.

EFFECT CONCENTRATION POINT (ECP) is a point estimate of the toxicant (or effluent) concentration that would cause an observable adverse effect (e.g., survival or fertilization) in a given percent of the test organisms, calculated from a continuous model (e.g., USEPA Probit Model).

HARDNESS means the sum of the calcium and magnesium concentrations, expressed as calcium carbonate ($CaCO_3$) in milligrams per liter.

HYPOTHESIS TESTING is a statistical technique (e.g., Dunnetts test) that determines what concentration is statistically different from the control. Endpoints determined from hypothesis testing are NOEC and LOEC. The two hypotheses commonly tested in WET are:

- Null hypothesis (H_0): The effluent is not toxic.
- Alternative hypothesis (H_a): The effluent is toxic.

INHIBITION CONCENTRATION (IC) is a point estimate of the toxicant concentration that would cause a given percent reduction in a non-lethal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., USEPA Interpolation Method). IC25 is a point estimate of the toxicant concentration that would cause a 25% reduction in a non-lethal biological measurement.

INTERIM ML If a promulgated method-specific ML is not available, then an interim ML must be calculated. The interim ML is equal to 3.18 times the promulgated method-specific MDL rounded to the nearest multiple of 1, 2, 5, 10, 20, 50, etc.

LABORATORY ML, is to be calculated when neither an ML or MDL are promulgated under 40 CFR 136 or 9 A.A.C. 14, Article 6. A laboratory ML should be calculated by multiplying the best estimate of detection by a factor or 3.18 and rounding the value to the nearest multiple of 1, 2, 5, 10, 20, 50, etc. When a range of detection is given, the lower end value of the range of detection should be used to calculate the ML.

LC50 is the toxicant (or effluent) concentration that would cause death in 50 percent of the test organisms.

METHOD DETECTION LIMIT (MDL) is the minimum concentration of an analyte that can be detected with 99% confidence that the analyte concentration is greater than zero, as defined under 40 CFR 136 or 9 A.A.C. 14, Article 6 methods. The procedure for determination of a laboratory MDL is prescribed under 9 A.A.C. 14, Article 6 methods or by 40 CFR Part 136, Appendix B (1998).

METHOD SPECIFIC ML is the promulgated method-specific ML contained in 40 CFR 136 or 9 A.A.C.14, Article 6 (as "Minimum Levels") and must be used if available.

MINIMUM LEVEL (ML) is the concentration at which the entire analytical system gives a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all of the method-specified sample weights, volumes, and processing steps have been followed (as defined in EPA's draft *National Guidance for the Permitting, Monitoring, and Enforcement of Water Quality-Based Effluent Limitations Set Below Analytical Detection/Quantitative Levels,* March 22, 1994).

MIXING ZONE is an area where an effluent discharge undergoes initial dilution and may be extended to cover the secondary mixing in the ambient waterbody. A mixing zone is an allocated impact zone where water quality criteria can be exceeded as long as acutely toxic conditions are prevented.

MONTHLY OR WEEKLY AVERAGE CONCENTRATION LIMIT, other than for bacteriological testing, means the highest allowable average calculated as an arithmetic mean of consecutive measurements made during calendar month or week, respectively. The "monthly or weekly average concentration limit" for *E. coli* bacteria means the highest allowable average calculated as the geometric mean of a minimum of four (4) measurements made during a calendar month or week, respectively. The geometric mean is the nth root of the product of n numbers. For either method (CFU or MPN), when data is reported as "0" or non-detect then input a "1" into the calculation for the geometric mean.

MONTHLY OR WEEKLY AVERAGE MASS LIMITATION means the highest allowable value that shall be obtained by taking the total mass discharged during a calendar month or week, respectively, divided by the number of days in the period that the facility was discharging. Where less than daily sampling is required by this permit, the monthly or weekly average value shall be determined by the summation of all the measured discharges by mass divided by the number of days during the month or week, respectively, when the measurements were made.

MONTHLY MEDIAN means the middle value in a data set consisting of measurements collected during one calendar month ordered from smallest to largest. If the number of values in the ordered data set is even, the middle two values are averaged. Ex. The median of (1, 3, 4) is 3. The median of (1,3,4,5) is 3.5. If there is only one value in the data set, then that value is the median.

NO OBSERVED EFFECT CONCENTRATION (NOEC) is the highest tested concentration of effluent or toxicant, that causes no observable adverse effect on the test organisms (i.e., the highest concentration of toxicant at which the values for the observed responses are not statistically significant different from the controls).

POINT ESTIMATE TECHNIQUES such as Probit, Interpolation Method, Spearman-Karber are used to determine the effluent concentration at which adverse effects (e.g., fertilization, growth or survival) occurred. For example, concentration at which a 25 percent reduction in fertilization occurred.

REFERENCE TOXICANT TEST is a toxicity test conducted with the addition of a known toxicant to indicate the sensitivity of the organisms being used and demonstrate a laboratory's ability to obtain consistent results with the test method. Reference toxicant data are part of the routine QA/QC program to evaluate the performance of laboratory personnel and test organisms.

SIGNIFICANT DIFFERENCE is defined as statistically significant difference (e.g., 95% confidence level) in the means of two distributions of sampling results.

SINGLE CONCENTRATION ACUTE TEST is a statistical analysis comparing only two sets of replicate observations. In the case of WET, comparing only two test concentrations (e.g., a control and 100% effluent). The purpose of this test is to determine if the 100% effluent concentration differs from the control (i.e., the test passes or fails).

SUBMIT, as used in this permit, means post-marked, documented by other mailing receipt, or hand-delivered to ADEQ.

TEST ACCEPTABILITY CRITERIA (TAC) are specific criteria for determining whether toxicity tests results are acceptable. The effluent and reference toxicant must meet specific criteria as defined in the test method.

TOXIC UNIT (TU) is a measure of toxicity in an effluent as determined by the acute toxicity units or chronic toxicity units measured. Higher the TUs indicate greater toxicity.

TOXIC UNIT ACUTE (TUa) is the reciprocal of the effluent concentration that causes 50 percent of the organisms to die by the end of an acute toxicity test (i.e., TUa = 100/LC50).

TOXIC UNIT CHRONIC (TUc) is the reciprocal of the effluent concentration that causes no observable effect on the test organisms by the end of a chronic toxicity test (i.e., TUc = 100/NOEC).

TOXICITY IDENTIFICATION EVALUATION (TIE) is a set of procedures used to identify the specific chemical(s) causing effluent toxicity.

TOXICITY REDUCTION EVALUATION (TRE) is a site-specific study conducted in a stepwise process designed to identify the causative agents of effluent toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity.

TOXICITY TEST is a procedure to determine the toxicity of a chemical or an effluent using living organisms. A toxicity test measures the degree of effect of a specific chemical or effluent on exposed test organisms.

WHOLE EFFLUENT TOXICITY is the total toxic effect of an effluent measured directly with a toxicity test.

APPENDIX B

AZPDES Discharge Flow Record

Hassayampa Ranch WRF - AZ0012345

Discharge to the Hassayampa River in the Middle Gila River Basin At:

Outfall No.:	001

Location:
Lat: 33° 29' 42" Long: 112° 45' 15"

Month: Year:

DATE	Flow Duration [1] (Total minutes per day)	Flow Rate[2] (Total MGD per day)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		

Comment:

footnotes:

(1) Total time of discharge in hours per day. If actual time is not available, use an estimate of flow duration.

(2) Report flow discharged in MGD. If no discharge occurs on any given day, report 'ND' for the flow for that day

Signature of Authorized Representative:

_____

APPENDIX C

Ammonia Data Log

Date of Sample	Ammonia Value In Effluent (mg/L)	pH (in effluent)	Temperature (in effluent) (Celsius)

Please copy and complete for each month of each year for permit term. Attach any additional pages as necessary.

Signature of Authorized Representative_____

APPENDIX D

STANDARD AZPDES PERMIT CONDITIONS & NOTIFICATIONS

(Updated as of February 2, 2004)

1. Duty to Reapply [R18-9-B904(C)]
Unless the Permittee permanently ceases the discharging activity covered by this permit, the Permittee shall submit a new application 180 days before the existing permit expires.

2. Applications [R18-9-A905(A)(1)(c) which incorporates 40 CFR 122.22]

   a. All applications shall be signed as follows:

      1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

         A) A president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function, or any other person who performs similar policy- or decision-making functions for the corporation, or

         B) The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

      2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

      3) For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

   b. All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this Section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

      1) The authorization is made in writing by a person described in paragraph (a) of this section;

      2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and,

      3) The written authorization is submitted to the Director.

   c. Changes to Authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

   d. Certification. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

3. Duty to Comply [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(a)(i) and A.R.S. §49- 262, 263.01, and 263.02.]

   a. The Permittee shall comply with all conditions of this permit and any standard and prohibition required under A.R.S. Title 49, Chapter 2, Article 3.1 and A.A.C. Title 18, Chapter 9, Articles 9 and 10. Any permit noncompliance constitutes a violation of the Clean Water Act; A.R.S. Title 49, Chapter 2, Article 3.1; and A.A.C. Title 18, Chapter 9, Articles 9 and 10, and is grounds for enforcement action, permit termination, revocation and reissuance, or modification, or denial of a permit renewal application.

   b. The issuance of this permit does not waive any federal, state, county, or local regulations or permit requirements with which a person discharging under this permit is required to comply.

   c. The Permittee shall comply with the effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Clean Water Act within the time provided in the regulation that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

   d. Civil Penalties. A.R.S. § 49-262(C) provides that any person who violates any provision of A.R.S. Title 49, Chapter 2, Article 3.1 or a rule, permit, discharge limitation or order issued or adopted under A.R.S. Title 49, Chapter 2, Article 3.1 is subject to a civil penalty not to exceed $25,000 per day per violation.

   e. Criminal Penalties. Any a person who violates a condition of this permit, or violates a provision under A.R.S. Title 49, Chapter 2, Article 3.1, or A.A.C. Title 18, Chapter 9, Articles 9 and 10 is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which may include the possibility of fines and/or imprisonment.

4. Need to Halt or Reduce Activity Not a Defense [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(c)]

   It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

5. Duty to Mitigate [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(d)]

   The Permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(e)]

   The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

7. Permit Actions [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(f)]

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

8. Property Rights [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(g)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

9. Duty to Provide Information [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(h)]

The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

10. Inspection and Entry [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(i)]

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and such other documents as may be required by law, to:

a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the terms of the permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring equipment or control equipment), practices or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by A.R.S. Title 49, Chapter 2, Article 3.1, and A.A.C. Title 18, Chapter 9, Articles 9 and 10, any substances or parameters at any location.

11. Monitoring and Records [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(j)]

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application, except for records of monitoring information required by this permit related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Director at any time.

c. Records of monitoring information shall include:

1) The date, exact place and time of sampling or measurements;

2) The individual(s) who performed the sampling or measurements;

3) The date(s) the analyses were performed;

4) The individual(s) who performed the analyses;

5) The analytical techniques or methods used; and

6) The results of such analyses.

d. Monitoring must be conducted according to test procedures specified in this permit. If a test procedure is not specified in the permit, then monitoring must be conducted according to test procedures approved under A.A.C. R18-9-A905(B) including those under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 (for sludge).

e. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained in this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both for first conviction. For a second conviction, such a person is subject to a fine of not more than $20,000 per day of violation, or imprisonment for not more than four years, or both.

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained in this permit is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which includes the possibility of fines and/or imprisonment.

12. Signatory Requirement [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(k)]

a. All applications, reports, or information submitted to the Director shall be signed and certified. (See 40 CFR 122.22 incorporated at R18-9-A905(A)(1)(c))

b. The CLEAN WATER ACT provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both for a first conviction. For a second conviction, such a person is subject to a fine of not more than $20,000 per day of violation, or imprisonment of not more than four years, or both.

13. Reporting Requirements [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(l)]

a. Planned changes. The Permittee shall give notice to the Director as soon as possible of any planned physical alterations of additions to the permitted facility. Notice is required only when:

1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b) (incorporated by reference at R18-9-A905(A)(1)(e)); or

2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1) (incorporated by reference at R18-9-A905(A)(3)(b)).

3) The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. Anticipated noncompliance. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

c. Transfers. (R18-9-B905) This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary under Arizona Revised Statutes and the Clean Water Act.

d. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.

2) If the Permittee monitors any pollutant more frequently than required by the permit, then the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR, or sludge reporting form specified by the Director.

3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

e. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

f. Twenty-four hour reporting.

1) The Permittee shall report any noncompliance which may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

2) The following shall be included as information which must be reported within 24 hours under this paragraph.

a) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR 122.41(g) which is incorporated by reference at R18-9-A905(A)(3)(a))

b) Any upset which exceeds any effluent limitation in the permit.

c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. (See 40 CFR 122.44(g) which is incorporated by reference at R18-9-A905(A)(3)(d))

g. Other noncompliance. The Permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this section.

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

14. Bypass [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(m)]

a. Definitions

1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the

absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations. The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of paragraphs (c) and (d) of this section.

c. Notice.

1) Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of bypass.
2) Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass as required in paragraph (f)(2) of section 13 (24-hour notice).

d. Prohibition of bypass.

1) Bypass is prohibited, and the Director may take enforcement action against a Permittee for bypass, unless:

a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c) The Permittee submitted notices as required under paragraph (c) of this section.

2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (d)(1) of this section.

15. Upset [A.R.S. § 49-255(8) and 255.01(E), R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(n)]

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A Permittee who wishes to establish the affirmative defenses of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1) An upset occurred and that the Permittee can identify the cause(s) of the upset;

2) The permitted facility was at the time being properly operated; and

3) The Permittee submitted notice of the upset as required in paragraph (f)(2) of Section 13 (24-hour notice).

4) The Permittee has taken appropriate measure including all reasonable steps to minimize or prevent any discharge or sewage sludge use or disposal that is in violation of the permit and that has a reasonable likelihood of adversely affecting human health or the environment per A.R.S. §49-255.01(E)(1)(d)

d. Burden of proof. In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.

16. Existing Manufacturing, Commercial, Mining, and Silvicultural Dischargers [R18-9-A905(A)(3)(b) which incorporates 40 CFR 122.42(a)]

In addition to the reporting requirements under 40 CFR 122.41(l) (which is incorporated at R18-9-A905(A)(3)(a)), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

1) One hundred micrograms per liter (100 µg/l);

2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

3) Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7) (which is incorporated at R18-9-A905(A)(1)(b)); or

4) The level established by the Director in accordance with 40 CFR 122.44(f) (which is incorporated at R18-9-A905(A)(3)(d)).

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

1) Five hundred micrograms per liter (500 µg/l);

2) One milligram per liter (1 mg/l) for antimony;

3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7)(which is incorporated at R18-9-A905(A)(1)(b));

4) The level established by the Director in accordance with 40 CFR 122.44(f) (which is incorporated at R18-9-A905(A)(3)(d)).

17. Publicly Owned Treatment Works [R18-9-A905(A)(3)(b) which incorporates 40 CFR 122.42(b)]

This section applies only to publicly owned treatment works as defined at ARS §49-255(5).

a. All POTW's must provide adequate notice to the Director of the following:

1) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the CLEAN WATER ACT if it were directly discharging those pollutants; and

2) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

3) For the purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharge from the POTW.

b. Publicly owned treatment works may not receive hazardous waste by truck, rail, or dedicated pipe except as provided under 40 CFR 270. Hazardous wastes are defined at 40 CFR 261 and include any mixture containing any waste listed under 40 CFR 261.31 - 261.33. The Domestic Sewage Exclusion (40 CFR 261.4) applies only to wastes mixed with domestic sewage in a sewer leading to a publicly owned treatment works and not to mixtures of hazardous wastes and sewage or septage delivered to the treatment plant by truck.

18. Reopener Clause [R18-9-A905(A)(3)(d) which incorporates 40 CFR 122.44(c)]

This permit shall be modified or revoked and reissued to incorporate any applicable effluent standard or limitation or standard for sewage sludge use or disposal under sections 301(b)(2)(C), and (D), 304(b)(2), 307(a)(2) and 405(d) which is promulgated or approved after the permit is issued if that effluent or sludge standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant or sludge use or disposal practice not limited in the permit.

19. Privately Owned Treatment Works [R18-9-A905(A)(3)(d) which incorporates 40 CFR 122.44]

This section applies only to privately owned treatment works as defined at 40 CFR 122.2.

a. Materials authorized to be disposed of into the privately owned treatment works and collection system are typical domestic sewage. Unauthorized material are hazardous waste (as defined at 40 CFR Part 261), motor oil, gasoline, paints, varnishes, solvents, pesticides, fertilizers, industrial wastes, or other materials not generally associated with toilet flushing or personal hygiene, laundry, or food preparation, unless specifically listed under "Authorized Non-domestic Sewer Dischargers" elsewhere in this permit.

b. It is the Permittee's responsibility to inform users of the privately owned treatment works and collection system of the prohibition against unauthorized materials and to ensure compliance with the prohibition. The Permittee must have the authority and capability to sample all discharges to the collection system, including any from septic haulers or other unsewered dischargers, and shall take and analyze such samples for conventional, toxic, or hazardous pollutants when instructed by the permitting authority. The Permittee must provide adequate security to prevent unauthorized discharges to the collection system.

c. Should a user of the privately owned treatment works desire authorization to discharge non-domestic wastes, the Permittee shall submit a request for permit modification and an application, pursuant to 40 CFR 122.44(m), describing the proposed discharge. The application shall, to the extent possible, be submitted using ADEQ Forms 1 and 2C, unless another format is requested by the permitting authority. If the privately owned treatment works or collection system user is different from the Permittee, and the Permittee agrees to allow the non-domestic discharge, the user shall submit the application and the Permittee shall submit the permit modification request. The application and request for modification shall be submitted at least 6 months before authorization to discharge non-domestic wastes to the privately owned treatment works or collection system is desired.

20. Transfers by Modification [R18-9-B905]

Except as provided in section 21, a permit may be transferred by the Permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made under R18-9-B906, to identify the new Permittee and incorporate such other requirements as may be necessary.

21. Automatic Transfers [R18-9-B905]

An alternative to transfers under section 20, any AZPDES permit may be automatically transferred to a new Permittee if:

a. The current Permittee notifies the Director at least 30 days in advance of the proposed transfer date;

b. The notice includes a written agreement between the existing and new Permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

c. The Director does not notify the existing Permittee and the proposed new Permittee of his or her intent to modify or revoke and reissue the permit. A modification under this subparagraph may also be a minor modification under R18-9-B906(B).

22. Minor Modification of Permits [R18-9-B906(B)]

Upon the consent of the Permittee, the Director may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without following public notice procedures under R18-9-A907 or A908. Minor modifications may only:

a. Correct typographical errors;

b. Update a permit condition that changed as a result of updating an Arizona water quality standard;

c. Require more frequent monitoring or reporting by the Permittee;

d. Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

e. Allow for a change in ownership or operational control of a facility where the Director determines that no other change in their permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittee has been submitted to the Director.

f. Change the construction schedule for a discharger which is a new source. No such change shall affect a discharger's obligation prior to discharge under 40 CFR 122.29 (which is incorporated by reference in R18-9-A905(A)(1)(e)).

g. Delete a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with the permit limits.

h. Incorporate conditions of a POTW pretreatment program that has been approved in accordance with the procedures in 40 CFR 403.11 and 403.18 as enforceable conditions of the POTW's permit.

i. Annex an area by a municipality.

23. Termination of Permits [R-9-B906(C)]

The following are causes for terminating a permit during its term, or for denying a permit renewal application:

a. Noncompliance by the Permittee with any condition of the permit;

b. The Permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the Permittee's misrepresentation of any relevant facts at any time;

c. A determination that the permitted activity endangers human health or the environment and can only by regulated to acceptable levels by permit modification or termination; or

d. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit (for example, a plant closure or termination of discharge by connection to a POTW).

24. Availability of Reports [Pursuant to A.R.S §49-205]

Except for data determined to be confidential under A.R.S §49-205(A), all reports prepared in accordance with the terms of this permit shall be available for public inspection at ADEQ offices. As required by A.R.S. §49-205(B) and (C), permit applications, permits, and effluent data shall not be considered confidential.

25. Removed Substances [Pursuant to Clean Water Act Section 301]

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

26. Severability [Pursuant to A.R.S §49-324(E)]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and remainder of this permit, shall not be affected thereby.

27. Civil and Criminal Liability [Pursuant to A.R.S §49-262, 263.01, and 263.02]

Except as provided in permit conditions on "Bypass" (Section 14) and "Upset" (Section 15), nothing in this permit shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance.

28. Oil and Hazardous Substance Liability [Pursuant to Clean Water Act Section 311]

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under Section 311 of the Clean Water Act.

29. State or Tribal Law [Pursuant to R18-9-A904(C)]

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State or Tribal law or regulation under authority preserved by Section 510 of the Clean Water Act.