



Fact Sheet

for the Issuance of

Arizona Pollutant Discharge Elimination System (AZPDES)

General Permit for Minor Discharges of Domestic Wastewater to

Waters of the United States (AZGP2012-002)

INTRODUCTION

This Fact Sheet relates to the Arizona Department of Environmental Quality (ADEQ) 2012 AZPDES General Permit for Minor Discharges of Domestic Wastewater to Waters of the United States (AZGP2012-002). Hereinafter, the term “this permit” will be used. This permit is applicable only to secondary treated effluent discharges from domestic wastewater treatment facilities with a design flow of less than one million gallons per day (1 mgd) to waters of the United States (U. S.) in Arizona with the designated uses of Partial-body contact (PBC) and Aquatic and wildlife effluent-dependent water (A&Wedw); or PBC and Aquatic and wildlife ephemeral (A&We) as per A.A.C. R18-11-104.D, Appendix B; the designated uses of Agricultural irrigation (Agl) and/or Agricultural livestock watering (AgL) may be included.

This permit is not applicable to discharges located in Indian Country (see discussion in Part I below for further details). The new permit will be issued for a five year term. Pursuant to Arizona Administrative Code (A.A.C.) R18-9-C905, ADEQ may modify or revoke and reissue this permit before it expires if certain conditions presented in 40 CFR 122.62(a) or (b) are met.

This Fact Sheet is written in an informal style that does not necessarily reflect verbatim the actual language used in this permit. It is intended to help the regulated community and other readers understand the intent and basis of the actual permit language. If any discrepancy exists between this summary and the actual permit language, permittees must comply with the permit as written.

BACKGROUND

Under Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Article 3.1, it is unlawful to discharge to waters of the United States (U. S.) except in conformance with an AZPDES permit. “Waters of the U. S.” (WUS) is defined in 40 CFR122.2 and generally refers to surface waters (not ground water).

There are two basic types of AZPDES permits: individual permits and general permits. An individual permit is typically issued for discharges from a single facility for a multi-year period, and often requires a lengthy period for review and issuance. As an alternative to individual permits, Arizona’s AZPDES regulations authorize the issuance of general permits (A.A.C. R18-9-C901) for categories of discharges located within common geographic areas, that:

- Involve the same or substantially similar types of operations;
- Discharge the same types of wastes or engage in the same types of disposal practices;
- Require the same effluent limitations, operating conditions, or standards;

- Require the same or similar monitoring; and
- Are more appropriately controlled under a general permit than under an individual permit.

This proposed permit meets these requirements and does not lessen environmental protections that would otherwise be required under an individual permit. Domestic wastewater treatment facilities with no industrial users and discharging less than 1 mgd have similar treatment processes, similar pollutants, the same technology-based limitations, and the same water quality-based standards apply (those applicable to A&Wedw and PBC). It is estimated that approximately 30 – 50 facilities in Arizona will fall into this category.

A general permit is a cost-effective and efficient means for ADEQ to authorize discharges from a large number of similar facilities or sites, while ensuring consistency in permit conditions for similar discharges. This approach also benefits an applicant by significantly shortening the time necessary to obtain permit coverage without compromising environmental protections required under an individual AZPDES permit.

NOTE: When the requirements of a general permit do not adequately address the activity at a facility or if ADEQ determines that the discharge is a significant contributor of pollutants, an individual permit may be required so that permit conditions can be customized to the discharge site. Application requirements for individual AZPDES permits are found at A.A.C. R18-9-B901.

FEES

This permit is a Level 4A, based on A.A.C. R18-14-109, Table 6, AZPDES Water Quality Protection Services Flat Fees and will apply to minor facilities having a design capacity less than 1 mgd.

The initial and annual fees for a Level 4A permit are \$2,000. These fees are based on the Department's total anticipated staff hours (including permit development, customer service, review of the NOI, and annual data review and inspections) divided by the total number of potential permittees over a 5-year period. Over the 5-year permit term, these fees could be \$2,000 to \$6,000 less than the cost of an individual permit, depending on the design capacity of the facility.

The initial fee for the General Permit is due at the time the NOI is submitted. The annual fee is due on the anniversary of the date the DAC is issued.

SUMMARY OF PERMIT CONDITIONS

Part I. Permit Area and Applicability

This general permit is applicable for discharges from facilities that meet the following conditions:

- 1) Domestic wastewater treatment plants (WWTPs) with a design capacity of less than 1 million gallons per day (these are considered minor facilities under the AZPDES program.); and
- 2) Discharge treated wastewater to WUSs that have the designated uses of Partial-body contact (PBC) and Aquatic and wildlife effluent-dependent water (A&Wedw); or PBC and Aquatic and wildlife ephemeral (A&We). This permit is also applicable to WUS with the above uses that also have designated uses of Agricultural irrigation (AgI) and/or Agricultural livestock watering (AgL); and
- 3) This permit is applicable within the State of Arizona, except for Indian Country. Indian Country, as defined in U. S. Code Title 18 §1151, includes all land within the limits of any Indian reservation under the jurisdiction of the United States government. ADEQ does not have permitting authority in Indian Country. Operators in these areas must pursue permitting through U.S. EPA Region 9 or other appropriate permitting authority.

What discharges need coverage?

Under A.R.S. § 49-255.01, any discharge to waters of the U.S. requires coverage under an AZPDES permit, unless excluded from permit requirements under A.A.C. R18-9-A902.G. For eligible discharges, this permit is one of the options for obtaining coverage. An individual AZPDES permit is also an option, but the process of obtaining general permit coverage is generally much simpler and quicker. Regardless of which permit option is chosen, permit coverage must be in place at the time of discharge.

Discharges to retention basins outside of waters of the U.S. with no potential to reach waters of the U.S. do not need AZPDES coverage. Such discharges may, however, require an Aquifer Protection Permit.

What are the limitations on coverage?

This permit excludes the following types of discharges:

1. Discharges other than those from a domestic WWTP.
2. Discharges to OAWs.
3. Discharges that will cause or contribute to an exceedance of an Arizona water quality standard.
4. Discharges that are not in conformance with any approved Total Maximum Daily Load (TMDL).
5. Discharges that are not consistent with the Regional Water Quality Management Plan.

Part II. A. Application for Coverage for AZPDES Discharges

Authorization to discharge under this permit is requested by submitting a complete AZPDES Notice of Intent (AZGP2011– 002 NOI) to ADEQ. Only forms provided by ADEQ (or reproductions thereof) are valid. The application forms can be found at the following ADEQ web address:

<http://www.azdeq.gov/function/forms/appswater.html>

The applicant identified in the “Facility Owner” section of the NOI must be a person having control of those activities related to the subject discharge which are necessary to ensure compliance with the conditions of this permit, and who takes responsibility for such compliance. Note that the applicant may be an individual or any type of organization listed in the definition of “person” per A.R.S. §49-201(27)). Part X of the permit specifies signatory requirements for various types of organizations including sole proprietorships.

It is imperative that the signer of the NOI understands that the applicant/permittee is liable for adherence to the conditions of the permit, which include potential civil and criminal penalties for noncompliance as stated in Part X of the permit.

If an NOI is submitted and is not signed or is signed by an unauthorized person, it will be returned to the applicant and not processed until completed and resubmitted

Part II. B. Authorization to Discharge and Timeframes.

An applicant is not authorized to discharge under this permit until a discharge authorization certificate (DAC) is issued to the facility. If the NOI is complete and is approved, a DAC will be sent to the permittee confirming coverage, indicating the effective date, and specifying any specific

conditions applicable to the discharge. However, at any point, ADEQ may request additional information from the applicant or, if significant concerns regarding eligibility exist, deny coverage under this permit and require submittal of an application for an individual AZPDES permit based on a review of the NOI or other relevant information.

A list of all NOIs in process for coverage under this permit will be posted on the ADEQ Home Page for public review. In addition, once the DAC is issued, it will be posted on the ADEQ Home Page Events and Notices Calendar.

Part II. C. Modification of Coverage.

This section of the permit provides for minor amendments to NOIs. Minor amendments to the NOI are corrections of typographical errors, changes to contact information for the owner or operator of the facility, designation of a new operator, or other corrections that do not affect conditions of the DAC. For any other changes, submittal of a new NOI is required.

Part II. D. Termination of Coverage.

The permittee must submit a Notice of Termination (NOT) signed in accordance with Part X within 30 days after any of the following: the subject discharges have permanently ceased; coverage has been obtained under another AZPDES permit; or responsibility for the discharge activity has been transferred. NOTs provide ADEQ with a mechanism to track the status of discharges which have been covered by the permit. If an NOT is not submitted, the requirements of the general permit and DAC such as monitoring and reporting on DMRs continue to apply.

The NOT must be submitted using the form provided by ADEQ for this purpose, or a reproduction thereof, and sent to the address specified on the form. Monitoring results must be submitted with the NOT if required by a condition in the DAC issued by ADEQ for the discharge.

Part II. E. Transfer of Permit Coverage.

Authorization to discharge under this general permit is not transferable to any person. When there is a change in the party responsible for compliance with this permit the new responsible party must obtain coverage by submitting an NOI to ADEQ. The original permittee shall also submit an NOT.

Part II. F. Continuation of this Permit.

If the permit is not reissued or replaced (or revoked or terminated) prior to its expiration date, the Department has the authority to administratively extend coverage for existing dischargers, in accordance with A.A.C. R18-9-C903(A). If coverage is provided to a permittee prior to the expiration date, the permittee is authorized to discharge under the permit until the earliest of: (1) the authorization for coverage under a reissuance or replacement of the permit, following timely and appropriate submittal of a complete NOI; (2) submittal of a Notice of Termination; (3) denial of coverage under the reissued permit, or issuance or denial of an individual AZPDES permit for the permittee's discharges; or (4) a formal permit decision by ADEQ not to reissue the permit, at which time the Department will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit.

Part III. A. NOI Requirements

This section addresses the timing of the NOI submittal under the permit for facilities previously authorized under an existing permit. The applicant must submit a complete and accurate NOI at least 120 days in advance of the expiration date of an existing permit. All portions of the NOI must be completed – entering “not known” or “not applicable” is acceptable where appropriate.

Part III. B. Contents of NOI.

This section lists the information that must be contained in a complete NOI for AZPDES general permit AZGP2011-002.

The NOI forms can be found at the following ADEQ web address:

<http://www.azdeq.gov/function/forms/appswater.html>

Part III.C. Fees

This section provides information regarding the applicable initial and annual fees. The fee rule can be found at the following ADEQ web address:

<http://www.azdeq.gov/enviro/water/permits/fees.html>

Part III. D. Where to Submit.

The person shall submit the NOI and associated documents by mail, delivery service, or hand-delivery to:

**Arizona Department of Environmental Quality
Surface Water Section -- AZPDES General Permit
1110 West Washington Street, 5415A-1
Phoenix, Arizona 85007**

Part IV. Effluent Limitation and Monitoring Requirement Tables

This section contains tables specifying limits and monitoring requirements for the technology-based parameters, required laboratory reporting levels (LRLs) for trace substances, and action levels for whole effluent toxicity (WET) testing. Monitoring and reporting is required when discharging. In general, the regulatory basis for monitoring requirements is per 40 CFR §122.44(i) *Monitoring requirements*, and 40 CFR §122.48(b), *Required monitoring*; all of which have been adopted by reference in A.A.C. R18-9-A905, *AZPDES Program Standards*. A minimum of monitoring is also required whether discharging or not for those parameters already mentioned and for specified organic compounds. Sampling locations are specified in Part VI of the permit which also includes additional discharge requirements in the form of narrative standards.

Technology-based Limitations: As outlined in 40 CFR Parts 125.3 and 133:

The regulations found at 40 CFR §133 require that publically owned treatment works (POTWs) achieve specified treatment standards for BOD, TSS, and pH based on the type of treatment technology available. ADEQ also applies these technology-based limitations to privately owned wastewater treatment facilities using the same technologies as POTWs. Additionally, ADEQ uses technology-based limitations for oil & grease of 10 mg/L monthly average and 15 mg/L daily maximum. These levels are based on best professional judgement (BPJ) and are commonly accepted values that can be achieved by properly operated and maintained WWTPs. Monitoring for oil and grease is required by the permit with an LRL of 5 mg/L. For facilities that have elevated levels of oil and grease, a limit will be specified in the DAC.

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

Per 40 CFR 122.44(d)(1)(ii), (iii) and (iv), discharge limits must be included in the permit for parameters with "reasonable potential" (RP), that is, those known to be or expected to be present in the effluent at a level that could potentially cause any applicable numeric water quality standard to be exceeded. "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 RP are outlined in the *Technical Support Document for Water Quality-based Toxics Control (TSD)* (EPA/505/2-90-001). In most cases, the highest reported value for a parameter is multiplied by a factor (determined from the variability of the data and number of samples) to determine a "highest estimated value". This value is then compared to the lowest applicable Water Quality Standard for the receiving water. If the value is greater than the standard, RP exists and limits must be established for that parameter. Typically a minimum of ten data points are used to determine RP unless the reported value itself exceeds the lowest standard or is so close that additional data will not sufficiently reduce the estimated value. RP may also be determined from BPJ based on knowledge of the treatment facilities and other factors. If insufficient data are available, or if the laboratory reporting limits are close to or above the lowest applicable Water Quality Standard, RP is considered "indeterminate."

If limits are required, they will be established using a methodology developed by EPA. Long Term Averages (LTA) will be calculated for each designated use and the lowest LTA will be 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 based on A&W criteria will be developed using the "two-value steady state wasteload allocation" described on page 99 of the TSD. When the limit is based on human health criteria, the monthly average will be set at the level of the applicable standard and a daily maximum limit will be determined as specified in Section 5.4.4 of the TSD.

The permit includes water quality-based limits for total residual chlorine and *E. coli* because it is assumed that RP exists for these parameters in wastewater treatment plant effluent. 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. For other parameters that are found to have RP, a limit will be specified in the DAC along with the required frequency of monitoring based on the frequencies shown Part IV.B, Table 2 of this permit. Typically first-term permittees are required to monitor more frequently than second-term permittees in order to obtain a sufficient number of sample results to determine RP.

Effluent Characterization (EC) Testing: The purpose of 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 A.R.S. §49-203(A)(7). If pollutants are noted at levels of concern during the permit term, The DAC 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 IV.C. and VIII) to evaluate the discharge according to the narrative toxic standard in A.A.C. R18-11-108(A)(5) and to determine whether the discharge has RP for WET per 40 CFR 122.44(d)(iv).

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 action levels for WET included in the 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*. Limits for WET will be included in the DAC for any facility that has had exceedances of the WET action levels during a previous permit term unless the facility can identify the cause of the toxicity and eliminate it.

The draft permit requires monitoring for chronic toxicity using three surrogate species [*Ceriodaphnia dubia* (water flea) representing the invertebrate phyla; *Pimephales promelas* (fathead minnow), a vertebrate species; and *Selenastrum capricornutum* (a.k.a. *Raphidocelis subcapitata*, green algae) 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 Toxicity Reduction Evaluation (TRE) and possibly a Toxicity Identification Evaluation (TIE) to identify the source of toxicity and reduce toxicity. These conditions are required to ensure that toxicants are not discharged in amounts that are toxic to organisms [A.A.C. R18-11-108(A)(5)]. A reopener clause is included in accordance with 40 CFR Parts 122 and 124 and AAC R18-9-B906.

Three composite samples are required to complete one WET test. An 8-hour composite sample type was chosen for WET testing 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 all the parameters in Part IV of the draft permit, when testing of those parameters is required, to aid in the determination of the cause of toxicity if toxicity is detected. Additional procedural requirements for the WET test are included in the proposed permit in Part VIII.

The draft permit requires WET test results to be reported on discharge monitoring reports and submittal of the full WET lab report to ADEQ.

Anti-backsliding Considerations: “Anti-backsliding” refers to statutory (Section 402(o) of the Clean Water Act) and regulatory (40 CFR 122.44(l)) requirements that prohibit the renewal, reissuance, or modification of an existing NPDES permit that contains effluent limits, permit conditions, or standards that are less stringent than those established in the previous permit. The rules and statutes do identify exceptions to these circumstances where backsliding is acceptable. In developing the DAC any existing permit requirements will be reviewed and any limits or conditions will be maintained consistent with the anti-backsliding requirements.

Part V. Pre-Treatment Requirements

Pretreatment conditions are required for WWTPs with significant industrial users or when the WWTP is part of a system of multiple treatment plants with a combined capacity greater than 5 mgd. Standard requirements for implementing and enforcing an approved pretreatment plan are included in Appendices E and F of the permit. The DAC will specify if, and which, pretreatment requirements apply.

Part VI. Monitoring and Reporting Requirements

Requirements included in this section, among others, are: sample collection and analysis, development of a quality assurance manual, reporting of monitoring results on Discharge Monitoring Reports and an Ammonia Data Log, and 24-hour reporting of noncompliance.

The permittee is required to sample hardness as CaCO₃ at the same time the trace metals are sampled because the water quality standards for some metals are calculated using the water hardness values.

All narrative limitations in A.A.C. R18-11-108 that are applicable to the receiving water are included Part IV.F of the draft 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 meet 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 IV.G) in order to ensure that representative samples of the influent and effluent are consistently obtained.

The permit (Part VI.A.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, an "8-hour composite" sample has been defined as a flow-proportioned mixture of two discrete samples (aliquots) obtained approximately 8 hours apart. 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 VI. Monitoring and Reporting are included to ensure that the monitoring data submitted under this permit is accurate in accordance with 40 CFR 122.41(e).

Reporting requirements for monitoring results are detailed in Part VI.B of the permit, including completion and submittal of Discharge Monitoring Reports (DMRs).

The permit also requires annual submittal of an ammonia data log that records the results for temperature, pH, and ammonia samples and date of sampling (Part VI.B.4). This requirement is included because the normal method of reporting sampling results (on DMRs) is not sufficient for determining what standard applies. The ammonia standards in Appendix D are contingent upon the pH and temperature at the time of sampling for ammonia; but the format for reporting on DMRs does not link a sample to its particular date of sampling.

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

Part VII. Whole Effluent Toxicity Testing Requirements

Requirements included in this section, among others, are: how the tests shall be conducted and the outcome reported, when and how follow-up testing is required, and reporting. More details on WET monitoring requirements are given in Part IV of this fact sheet.

Part VIII. Biosolids/ Sewage Sludge Requirements

General requirements are included in this section as well as specific requirements for the disposal of biosolids at a municipal landfill or the transfer of untreated sewage sludge to another facility for treatment. Specific requirements for hazardous waste determination and for the preparation of biosolids for land application are provided in Appendices G and H, respectively, of the permit.

Part IX. Special Requirements

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 permitted facility will be to an effluent-dependent wash or ephemeral wash which will, in either case,

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 A.A.C. R18-11-107(C).

Operation: The permit requires the permittee to ensure that the WWTP has an operator who is certified at the appropriate level for the facility, in accordance with A.A.C. 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.

Fees: The permit requires the permittee to pay the initial fee when the NOI is submitted and to pay the annual fee when billed unless a notice of termination has been filed. The annual fee is due on the anniversary of the date the discharge authorization certificate (DAC) is issued. Failure to pay the annual fee when due may result in revocation of coverage under this permit.

Permit Reopener: The DAC may be modified based on newly available information; to add conditions or limits to address demonstrated effluent toxicity or RP; or to implement any EPA-approved new Arizona water quality standard.

Appendix A: Acronyms and Abbreviations

Appendix B: Definitions

Appendix C: Discharge Flow Record

Appendix D: Ammonia Data Log and Standards Table

Appendix E: Pretreatment Requirements (POTWs \geq 5 MGD)

Appendix F: Pretreatment Requirements for POTWs < 5 MGD (if required per DAC)

Appendix G: Testing for Hazardous Waste Determination

Appendix H: Requirement for the Preparation of Biosolids for Land Application

Appendix I. Standard Permit Conditions

Federal regulations require all AZPDES permits to contain the standard conditions specified at 40 CFR 122.41. Appendix I of this permit contains those conditions and certain others arising from Arizona law. They include provisions on the following, among others:

- reapplication if/when a new general permit is issued to replace this permit (Section 1);
- signatory requirements for forms and documents required by this general permit (Section 2);
- discharge authorization does not authorize any injury to private property or invasion of personal rights, nor any infringement of any existing laws or regulations (Section 8); and
- inspection and entry by ADEQ representatives (Section 10).