

## ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

This document gives pertinent information concerning the reissuance of the AZPDES permit listed below. This facility is a water treatment plant and is considered to be a minor facility under the NPDES program. The effluent limitations contained in this permit will maintain the Water Quality Standards listed in Arizona Administrative Code (A.A.C.) R18-11-101 *et seq.* This permit is proposed to be issued for a period of 5 years.

<b>I. PERMITTEE INFORMATION</b>	
Permittee's Name:	City of Yuma
Permittee's Mailing Address:	155 W. 14th St. Yuma, AZ 85364
Facility Name:	Main Street Water Treatment Plant
Facility Address or Location:	175 N. Main St. Yuma, AZ 85364
County:	Yuma
Contact Person(s): Phone/e-mail address	Gregory Stack, Assistant Director of Utilities (928) 373 – 4616 / Gregory.stack@yumaaz.gov
AZPDES Permit Number:	AZ0025411
Inventory Number:	100798
LTF Number:	93076

<b>II. STATUS OF PERMIT(S)</b>	
AZPDES permit applied for:	Renewal
Date application received:	February 4, 2022
Date application was determined administratively complete:	February 10, 2022
Previous permit expiration date:	August 13, 2022

**208 Consistency:**

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

208 Plan consistency is not required for industrial facilities.

The City of Yuma has the following permits issued by ADEQ applicable to Main Street Water Treatment Plant:		
<b>Type of Permit</b>		
Aquifer Protection Permit (APP)	P100798	Regulates discharges to the local aquifer

<b>III. GENERAL FACILITY INFORMATION</b>	
Type of Facility:	Publicly owned domestic water treatment plant
Facility Location Description:	Northeast Yuma, approximately 100 feet south of the Colorado River.
Discharge Flow:	0.68 MGD
Applicable Treatment Processes:	Chemical addition (alum and polymer), flash mix, flocculation, sedimentation, and filtration. Chlorine dioxide is added to each sediment basin. Chlorine is added to the influent of the clear well.
Nature of facility discharge:	Settled water from the backwash of the water treatment plant filters is discharged from Outfall 002 to the Colorado River through four decant valves. The decant valves are located approximately 2600 feet upstream of the Yuma East Wetlands confluence with the Colorado River. When not discharged, the filter backwash is recirculated to the head of the water treatment plant.
Average flow per discharge:	0.451 MGD
Discharge pattern summary:	The contents of the backwash recovery basin are batched discharged four times a day, approximately 0.125 MGD each.
From the beginning of the previous permit term through October 25, 2021, the backwash of the water treatment plant filters was recirculated through the water treatment plant and no discharge occurred. Discharge to the Colorado River resumed on October 26, 2021.	

<b>IV. RECEIVING WATER</b>	
The State of Arizona has adopted water quality standards to protect the designated uses of its surface waters. Streams have been divided into segments and designated uses assigned to these segments. The water quality standards vary by designated use depending on the level of protection required to maintain that use.	
Receiving Water:	The Waters of the U.S. (WOTUS) Protected Surface Water (PSW) for the facility/ outfall is the Colorado River.
River Basin:	Colorado – Lower Gila River Basin
Outfall Location:	Outfall 002: Township 7S, Range 6E, Section 22 Latitude 32° 43' 36.45" N, Longitude 114° 37' 0.93" W

Designated uses for the receiving water listed above:	Aquatic and Wildlife warm water (A&Ww) Full Body Contact (FBC) Fish Consumption (FC) Agricultural Irrigation (Agl) Agricultural Livestock watering (AgL) Domestic Water Supply (DWS)
Is the receiving water on the 303(d) list?	Yes, the receiving water is listed as impaired for selenium (2006). A TMDL for nitrogen and phosphorus was approved in 1992. No WLA has been assigned for this facility because there is not expected to be a significant contribution of nitrogen or phosphorus from the discharge.

Given the uses stated above, the applicable narrative water quality standards are described in A.A.C. R18-11-108, and the applicable numeric water quality standards are listed in A.A.C. R18-11-109 and in Appendix A thereof. There are two standards for the Aquatic and Wildlife uses, acute and chronic. In developing AZPDES permits, the standards for all applicable designated uses are compared and limits that will protect for all applicable designated uses are developed based on the standards.

**V. DESCRIPTION OF DISCHARGE**

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

Parameters	Units	Maximum Daily Discharge Concentration
Total Phosphorus	mg/L	0.024
Total Suspended Solids (TSS)	mg/L	28
Total Kjeldahl Nitrogen (TKN)	mg/L	0.36
Selenium	mg/L	1.5

**VI. STATUS OF COMPLIANCE WITH THE EXISTING AZPDES PERMIT**

Date of Most Recent Inspection:	07/30/2020; no potential violations were noted during this inspection.
DMR Files Reviewed:	10/2021 through 01/2022
Lab Reports Reviewed:	10/2021 through 01/2022
DMR Exceedances:	None
NOVs Issued:	None
NOVs Closed:	N/A
Compliance Orders:	None

**VII. PROPOSED PERMIT CHANGES**

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

Parameter	Existing Permit	Proposed permit	Reason for change
Noncompliance Reporting Hotline	(602) 771-2330	Noncompliance resulting in imminent threat to human health or the environment must be reported to (602) 771-2330, while all other noncompliance must be reported to (602) 771-1440.	Routing emergency calls to the emergency hotline, but all other calls to a non-emergency number.
Copper and iron	Limited	Limit removed	Data submitted indicated no reasonable potential (RP) for an exceedance of a standard.
Whole effluent toxicity (WET) testing	Limited	Action Level	Data submitted indicated no reasonable potential (RP) for an exceedance of a standard.
Alpha particles (gross) Radioactivity	Assessment level	Limited	Data submitted indicated reasonable potential (RP) for an exceedance of a standard.
Hydrogen sulfide and sulfides	No monitoring required	Assessment level monitoring required	In 2009, the standard for sulfides was replaced with a standard for hydrogen sulfide. The 2012 permit for this facility removed monitoring for sulfides, but monitoring for the new hydrogen sulfide standard was never added. Monitoring for hydrogen sulfide is only required if sulfide is detected.

Temperature, ammonia, nitrate/nitrite (as N), antimony, beryllium, cadmium, chromium (total), chromium VI, lead, nickel, silver, thallium, and zinc.	No monitoring required	Monitoring required for discharge characterization.	DC monitoring is necessary for all facilities to characterize the discharge and determine if the parameters of concern are present in the discharge and at what levels.
Total Suspended Solids (TSS)	Mass Limits: Monthly average of 77.2 kg/day Weekly Average of 115.8 kg/day	Mass Limits: Monthly average of 51 kg/day Weekly Average of 100 kg/day	Mass limits were miscalculated in the 2017 permit. These values are consistent with the 2012 permit.

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

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

- Copper (Outfall 002)
- Iron (Outfall 002)
- Whole effluent toxicity (WET) testing (Outfall 002)

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

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

**VIII. DETERMINATION OF EFFLUENT LIMITATIONS and ASSESSMENT LEVELS**

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

**Technology-based Limitations:**

There are no applicable promulgated technology-based standards for water treatment plant discharges. However, best professional judgment (BPJ) technology limits for total suspended solids were included in the existing permit and are continued in the draft permit.

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

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

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

**Mixing Zone**

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

**Assessment Levels (ALs)**

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

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

**Hardness**

The permittee is required to sample hardness as CaCO<sub>3</sub> at the same time the trace metals are sampled because the water quality standards for some metals are calculated using the water hardness values. The hardness value of 310 mg/L (the average hardness of the receiving stream as supplied in the application) was used to calculate the applicable water quality standards and any discharge characterization, assessment levels or limits for the hardness dependent metals (cadmium, copper, lead, nickel, silver and zinc).

### **Whole Effluent Toxicity (WET)**

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

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

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

ADEQ does not have a numeric standard for Whole Effluent Toxicity. However, ADEQ adopted the EPA recommended chronic toxicity benchmark of 1.0 Toxic Unit-Chronic (TUC) for a four day exposure period. Using this benchmark, the limitations and/or 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*.

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.

WET sampling must coincide with testing for all the parameters in Parts I.A and B of the permit, when testing of those parameters is required, to aid in the determination of the cause of toxicity if toxicity is detected. Additional procedural requirements for the WET test are included in the proposed permit.

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

### **Discharge Characterization (DC)**

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

- Table 4.a.—General Chemistry and Microbiology: ammonia, total residual chlorine (TRC), dissolved oxygen, total Kjeldahl nitrogen (TKN), nitrate/nitrite, pH, phosphorus, temperature, and total suspended solids (TSS)
- Table 4.b. —Selected Metals, Hardness, Cyanide, and WET

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

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

### **Permit Limitations and Monitoring Requirements**

Table 1 summarizes the parameters that are limited in the permit and the rationale for that decision. Also included are the parameters that require monitoring without any limitations or that have not been included in the permit at all and the basis for those decisions. The corresponding monitoring requirements are shown for each parameter. In general, the regulatory basis for monitoring requirements is per 40 CFR §122.44(i) *Monitoring requirements*, and 40 CFR §122.48(b), *Required monitoring*; all of which have been adopted by reference in A.A.C. R18-9-A905, *AZPDES Program Standards*.

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**Table 1. Permit limitations and monitoring requirements.**

Parameter	Lowest Standard/Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/Rationale (1)
Flow	---	---	---	---	---	Discharge flow is to be monitored on a continual basis using a flow meter.
Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS)	No standard for BOD 20 mg/L 30-day average 40 mg/L 7-day average/ Best Professional Judgment (BPJ) technology-based limits	Monitoring not required for BOD  TSS: 28 mg/L	TSS: 12	N/A	Limit for TSS is retained from the previous permit and is a BPJ technology-based limit within the ability of current technology.	Monitoring is required and a limit is set for TSS. At least one sample must coincide with WET testing to aid in the determination of the cause of toxicity if toxicity is detected. No monitoring is required for BOD. This is consistent with the previous permit.
Chlorine, Total Residual (TRC)	33 µg/L A&Ww acute and 20 µg/L A&Ww chronic Site-specific Net Ecological Benefit (NEB) standards apply (A.A.C. R18-11-106 and Appendix C)	20 µg/L	9	N/A	RP always expected when chlorine or bromine is used for disinfection.	TRC is to be monitored as a discrete sample. 40 CFR Part 136 specifies that discrete samples must be collected for chlorine. 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 A&W and FBC A.A.C. R18-11-109(B)	7.7-8.3	10	N/A	Limit is always included.	pH is to be monitored using a discrete sample of the effluent and a WQBEL is set. 40 CFR Part 136 specifies that grab samples must be collected for pH. At least one sample must coincide with WET testing to aid in the determination of the cause of toxicity if toxicity is detected. pH sampling must also coincide with ammonia sampling when required.
Temperature	R18-11-109C the discharge shall not cause an increase in the ambient water temperature.  A&Ww: no more than 3.0°C	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Discharge temperature is to be monitored for discharge characterization by discrete sample. 40 CFR Part 136 specifies that discrete samples must be collected for temperature. Temperature sampling must also coincide with ammonia sampling when required.
Total Dissolved Solids (TDS)	No applicable standard	No Data	N/A	N/A	N/A	Monitoring not required. The discharge is downstream of the Imperial Dam and outside of the area of Colorado River Basin Salinity Control Forum numeric criteria for TDS concentration.
Ammonia	Standard varies with temperature and pH	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Ammonia is to be monitored for discharge characterization by discrete sample. One sample must coincide with WET sampling to aid in the determination of the cause of toxicity, if toxicity is detected.

**Table 1. Permit limitations and monitoring requirements.**

Parameter	Lowest Standard/Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/Rationale (1)
Nutrients (Total Kjeldahl Nitrogen and Total Phosphorus)	No applicable standards	TKN – 0.5 mg/L P – 0.024 mg/L	3	N/A	N/A	Monitoring and reporting required. No limits or assessment levels are set. The Main Street WTP is not listed as a point source in the 1992 TMDL.
Antimony	6 µg/L DWS	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Monitoring required for discharge characterization.
Arsenic	10 µg/L DWS	2.3 µg/L	3	13 µg/L	RP Exists	Monitoring is required and a WQBEL remains in the permit.
Beryllium	4 µg/L DWS	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Monitoring required for discharge characterization.
Cadmium (2)	5 µg/L DWS	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Monitoring required for discharge characterization.
Chromium (Total)	100 µg/L DWS	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Monitoring required as an indicator parameter for Chromium VI.
Chromium VI	11 µg/L A&Ww chronic	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Monitoring required for discharge characterization.
Copper (2)	24 µg/L A&Ww chronic	0.96 µg/L	3	5.4 µg/L	No RP	Monitoring required for discharge characterization.
Cyanide	9.7 µg/L A&Ww chronic	<50 µg/L	3	N/A	RP Indeterminate (High LOQ)	Monitoring is required with an Assessment Level.
Hardness	No applicable standard. Hardness is used to determine standards for specific metal parameters.	310 mg/L	3	N/A	N/A	A&W standards for cadmium, copper, lead, nickel, silver and zinc used for RP determinations were based on the average receiving water hardness value of 310 mg/L. Monitoring for hardness is required whenever monitoring for hardness dependent metals is required.

**Table 1. Permit limitations and monitoring requirements.**

Parameter	Lowest Standard/Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/Rationale (1)
Hydrogen sulfide	2 µg/L A&Ww chronic	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Monitoring is required for sulfides as an indicator parameter for hydrogen sulfide. If sulfides are detected, monitoring for hydrogen sulfide is required for the remainder of the permit term.
Iron	1,000 ug/L A&Ww chronic	130 µg/L	3	728 µg/L	No RP	Monitoring required for discharge characterization.
Lead (2)	8.4 µg/L A&Ww chronic	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Monitoring required for discharge characterization.
Mercury	0.01 µg/L A&Ww chronic	0.002 µg/L	3	0.01 µg/L	RP Exists	Monitoring required and a WQBEL remains in the permit.
Nickel (2)	135 µg/L A&Ww chronic	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Monitoring required for discharge characterization.
Selenium	2.2 µg/L A&Ww chronic Site-specific Net Ecological Benefit (NEB) standards apply (A.A.C. R18-11-106 and Appendix C)	1.5 µg/L	3	8.4 µg/L	RP Exists	Monitoring required and a WQBEL remains in the permit.
Silver (2)	23 µg/L A&Ww acute	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Monitoring required for discharge characterization.
Sulfides	No applicable standard	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Indicator parameter for hydrogen sulfide. Monitoring required. If sulfides are detected, monitoring for hydrogen sulfide is required for the remainder of the permit term.
Thallium	2 µg/L DWS	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Monitoring required for discharge characterization.
Zinc (2)	306 µg/L A&Ww acute and chronic	No Data (monitoring not required in previous permit)	0	N/A	RP Indeterminate	Monitoring required for discharge characterization.
Gross Alpha Particle Activity	15 pCi/L DWS	3.5 pCi/L	3	19.6	RP Exists	Monitoring is required and a WQBEL is set.

**Table 1. Permit limitations and monitoring requirements.**

Parameter	Lowest Standard/Designated Use		Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/Rationale (1)
Whole Effluent Toxicity (WET)	No toxicity (A.A.C. R18-11-108(A) (6))	<i>Pseudo-kirchneriella subcapitata</i> (3)	1 TUc	1	N/A	No RP	Monitoring required and an action level is set.
		<i>Pimephales promelas</i>	1 TUc	1	N/A	No RP	Monitoring required and an action level is set.
		<i>Ceriodaphnia dubia</i>	1 TUc	3	N/A	No RP	Monitoring required and an action level is set.

Footnotes:

1. The monitoring frequencies are as specified in the permit.
2. Hardness-dependent metal - the standard for this parameter is based on the average hardness value of the effluent or receiving water as indicated above.
3. Formerly known as *Selenastrum capricornutum* or *Raphidocelis subcapitata*.

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### VIII. NARRATIVE WATER QUALITY STANDARDS

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

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

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

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

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

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

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

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

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

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

#### **Electronic reporting**

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

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

### X. BIOSOLIDS REQUIREMENTS

Not applicable.

**XI. SPECIAL CONDITIONS (Part IV in Permit)**

**Permit Reopener**

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

**XII. ANTIDegradATION**

Antidegradation rules have been established under A.A.C. R18-11-107 to ensure that existing surface water quality is maintained and protected. The discharge from Main Street Water Treatment Plant will be to a perennial water with Tier 2 antidegradation protection. This is a renewal permit for an existing facility with no new or expanded discharge, and the existing uses have been maintained. Therefore, an antidegradation review is not required at this time. Effluent quality limitations and monitoring requirements have been established under the proposed permit to ensure that the discharge will meet the applicable water quality standards. As long as the permittee maintains consistent compliance with these provisions, the designated uses of the receiving water will be presumed protected, and the facility will be deemed to meet currently applicable antidegradation requirements under A.A.C. R18-11-107.

**XIII. STANDARD CONDITIONS**

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

**XIV. ADMINISTRATIVE INFORMATION**

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

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

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

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

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

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

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

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

### **XV. ADDITIONAL INFORMATION**

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

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

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### **XVI. INFORMATION SOURCES**

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

1. AZPDES Permit Application Forms 1 and 2C, received February 4, 2022, along with supporting data, facility diagram, and maps submitted by the applicant with the application forms.
2. ADEQ files on Main Street Water Treatment Plant.
3. ADEQ Geographic Information System (GIS) Web site
4. Arizona Administrative Code (AAC) Title 18, Chapter 11, Article 1, *Water Quality Standards for Surface Waters*, adopted December 31, 2016.
5. A.A.C. Title 18, Chapter 9, Article 9. *Arizona Pollutant Discharge Elimination System* rules.
6. Code of Federal Regulations (CFR) Title 40:
  - Part 122, *EPA Administered Permit Programs: The National Pollutant Discharge Elimination System*.
  - Part 124, *Procedures for Decision Making*.
  - Part 133. *Secondary Treatment Regulation*.
  - Part 503. *Standards for the Use or Disposal of Sewage Sludge*.
7. EPA Technical Support Document for Water Quality-based Toxics Control dated March 1991.
8. *Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs*, US EPA, May 31, 1996.
9. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA /821-R-02-013).
10. U.S. EPA NPDES Permit Writers' Manual, September 2010.