

MOUNTAIN PASS UTILITY COMPANY (MPUC)
SADDLEBROOKE RANCH WATER RECLAMATION PLANT EXPANSION
TUCSON, AZ

CAG 208 WATER QUALITY MANAGEMENT PLAN AMENDMENT

DRAFT

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Previous Amendments:

This CAG 208 Plan Amendment to the Saddlebrooke Ranch WRP supersedes the
"Mountain Pass Utility Company – Phase 1, November 2000" CAG 208 Plan Amendment

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LIST OF ACROMYMS

Acronym	Definition
ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
APP	Aquifer Protection Permit
ASLD	Arizona State Land Department
AZPDES	Arizona Pollutant Discharge Elimination System
BPU	Biological Processing Unit
CAG	Central Arizona Governments
DMA	Designated Management Area
MAG	Maricopa Association of Governments
MGD	Million Gallons per Day
MPUC	Mountain Pass Utility Company
RWQS	Reclaimed Water Quality Standards
UV	Ultraviolet
WMU	Waste Management Utility
WRP	Water Reclamation Plant

1.0 INTRODUCTION

1.1 ABSTRACT

1.1.1 Amendment Description

The CAG Section 208 Water Quality Management Plan (CAG Regional Plan) categorizes Mountain Pass Utility Company (MPUC) as a Wastewater Management Utility (WMU) in which exclusive rights to plan for wastewater services is held within its Certificate of Convenience and Necessity (CC&N) only. The CC&N is the Service Area for WMU as defined within the CAG Regional Plan.

This Plan Amendment supersedes the “Mountain Pass Utility Company – Phase 1, November 2000” CAG 208 Plan Amendment and any information regarding the Saddlebrooke Ranch Water Reclamation Plant (WRP) that was approved prior to this Plan Amendment. The Plan Amendment serves to provide an updated planning document regarding the WRP for the next 20 years.

As proposed within this updated Plan Amendment, the current capacity for the Saddlebrooke Ranch WRP of 0.249 MGD will be increased to 0.498 MGD by 2025, by adding another biological processing unit (BPU) and clarifier for expanded treatment and redundancy. The build-out capacity will ultimately be 0.747 MGD.

1.1.2 Ownership

The Saddlebrooke Ranch WRP is owned and operated by Mountain Pass Utility Company (MPUC). MPUC maintains authority required by Section 208(c)(2) of the Clean Water Act to implement this plan.

1.1.3 Location

The Saddlebrooke Ranch WRP is in Pinal County, approximately one-mile northwest of Oracle Junction and 22 miles north of Tucson along Highway 77. The WRP is located at 59283 East Phoebe Lane, Tucson, in Township 10 South, Range 14 East, Section 7. The Service Area and WRP location is shown in Appendix G.

1.2 HISTORY OF THE PROPOSAL

This CAG 208 Plan Amendment (Plan Amendment) is being initiated as a result of the previous amendment elapsing the 20-year planning horizon, as it was initially approved in 2000.

MPUC intends to expand the Saddlebrooke Ranch WRP by adding another BPU and clarifier for expanded treatment and redundancy. The immediate need is to provide redundancy to the current treatment capacity at the WRP while also providing for future growth of the adjacent community. The effluent pumps at the WRP would continue to discharge to the golf course impoundment lake

and supply Saddlebrooke Ranch Golf Club with reclaimed water for turf irrigation via a lake pump station. The effluent produced by the WRP meets Reclaimed Water Quality Standards (RWQS) for Class B+ Reclaimed Water and is not anticipated to negatively impact aquifer water quality in the areas discharged for irrigation. Under the current AZPDES permit, the WRP is also authorized to discharge treated domestic wastewater to an unnamed wash, tributary to Big Wash, tributary to Canada del Oro in the Santa Cruz Basin. Under the proposed conditions, discharge to the unnamed wash would continue to only occur during emergency overflow conditions. To date, a discharge from the WRP to the unnamed wash has not occurred.

1.3 NATURAL ENVIRONMENT

1.3.1 Groundwater Hydrology

The Saddlebrooke Ranch WRP is located in Falcon Valley, which is located in northern Canada del Oro Valley, north of Oracle Junction. The valley is structurally a graben bounded by faults to the east and west. The regional aquifer in the area is contained within the basin alluvial deposits which are estimated to be greater than 3,200 feet thick.

Groundwater flow direction in the project area is to the south-southwest. The depth to groundwater in the project area is approximately 373 feet below land surface (bfs).

2.0 PROJECT DESCRIPTION

2.1 OVERVIEW

2.1.1 Service Area

The CAG Section 208 Water Quality Management Plan (CAG Regional Plan) categorizes Mountain Pass Utility Company (MPUC) as a Wastewater Management Utility (WMU) in which exclusive rights to plan for wastewater services is held within its Certificate of Convenience and Necessity (CC&N) only. The CC&N is the Service Area for WMU as defined within the CAG Regional Plan.

The Saddlebrooke Ranch WRP is in Pinal County, approximately one-mile northwest of Oracle Junction and 22 miles north of Tucson along Highway 77. The Service Area includes approximately 2,500 acres of development northeast of the WRP. A map of the Service Area boundary is provided in Appendix G.

There is intent for future expansion of the Service Area from the current boundary within the next 20 years. The potential expansion would include 430 acres to the west for a total of 2,930 acres. MPUC understands that future expansion of its Service Area will trigger another CAG 208 Plan Amendment.

2.1.2 Facility Ownership

The Saddlebrooke Ranch WRP is owned and operated by MPUC. MPUC maintains authority required by Section 208(c)(2) of the Clean Water Act to implement this plan. MPUC owns the land in which the WRP is located.

2.1.3 Type of Facilities

The Saddlebrooke Ranch WRP includes wastewater treatment facilities that provide preliminary, secondary, tertiary treatment, and solids handling facilities. The current treatment process consists of an influent pump station that is equipped with a comminutor, splitter box, package BPU and clarifier, tertiary disc filter, ultraviolet (UV) disinfection, and effluent pump station.

Currently, the solids generated at the WRP are hauled offsite for dewatering. The liquid sludge is removed from the WRP clarifier and transported directly to the Butterfield Station Landfill.

The proposed WRP expansion would consist of a new bypass vault at the headworks, an additional BPU and clarifier, a new post equalization basin and discharge vault, and a new dewatering building. As per the proposed improvements, solids would now be dewatered on-site utilizing a new centrifuge dewatering system.

The effluent pumps supply the golf course impoundment lake and Saddlebrooke Ranch Golf Club with B+ reclaimed water for turf irrigation. The effluent pump station is also equipped with an overflow to the AZPDES discharge if the pumps are out of operation. The AZPDES discharge is an outfall adjacent to the property which directs flow to an unnamed tributary of Big Wash, during emergency.

2.1.4 Build Out Capacity

The Saddlebrooke Ranch WRP is currently permitted through the ADEQ Aquifer Protection Permit (APP) Program to produce up to 0.249 MGD. This Plan Amendment is proposing a 0.747 MGD build-out capacity for the WRP.

Table 1. Facility Capacity

Water Reclamation Plant	Saddlebrooke Ranch WRP
208 Planned Capacity, MGD	0.249
Aquifer Protection Permit Capacity, MGD	0.249
Current Constructed Capacity, MGD	0.249
Next Phase Capacity, MGD	0.249
Next Phase Total Capacity, MGD	0.498
Ultimate Buildout Capacity, MGD	0.747

2.1.5 Stakeholders and Neighboring Communities

Below are the identified stakeholders through this Plan Amendment process for the Saddlebrooke Ranch WRP. The purpose of the stakeholders is to provide comments and/or input that is focused on the technical aspects and completeness of the amendment proposal to identify any potential issues prior to moving forward with the public process.

- Pinal County

Per the CAG Water Quality Management Plan (2016), Section 5-6, Stakeholder Meeting(s): “If a stakeholder does not provide a ‘Letter of Support or No Objection’ or a ‘Letter of Objection’ received by CAG within 30 days (60 days for ASLD) from the initial stakeholders meeting, they forfeit their opportunity to object as a stakeholder and allow the applicant to move forward in the process.” Stakeholder Letters can be reviewed in Appendix C. The Arizona State Land Department (ASLD) was initially identified as a Stakeholder but elected to not issue a letter.

2.2 BOUNDARY & LEGAL DESCRIPTIONS

2.2.1 Facility Address

The Saddlebrooke Ranch WRP is located at 59283 East Egret Trail, Oracle, Arizona.

2.2.2 Legal Description

The Saddlebrooke Ranch WRP is located in Township 10 South, Range 14 East, Section 7. The WRP Service Area includes two full sections and five partial sections. Appendix G shows the Service Area for the WRP. The following table illustrates the sections served by the WRP.

Table 2. Sections Served by Saddlebrooke Ranch WRP

Township / Range	Section	Portion Served
T10S R14E	4	N ½
T10S R14E	5	Full
T10S R14E	7	SE ¼
T10S R14E	8	N ½, SW ¼
T9S R14E	32	Full
T9S R14E	33	S ½
T9S R14E	34	S ½

2.3 CURRENT & FUTURE CONDITIONS

2.3.1 Population

The Maricopa Association of Governments (MAG) conducts modeling activities to produce socioeconomic projections for population, dwelling units, and employment for Pinal County. The data is then reported to the State of Arizona to be used as the State's official estimates and projections. As part of MAG's modeling efforts, the data is refined to a smaller geographic boundary known as a Traffic Analysis Zone (TAZ). Some of the TAZs, and the data within them, were adjusted and/or extrapolated to fit the overall Service Area in order to provide the best population and dwelling unit estimates and projections.

Data received from MAG is presented in Table 3 and compared to developer projections. Due to the large discrepancy of projected growth patterns, developer data was chosen based on consistent sales patterns and known growth rates over the previous 15 years. Projections assume an occupancy density of two people per single family dwelling unit.

Table 3 indicates that growth was rapid over the first decade, with an average of 32% annual growth every year. Projected growth rates are predicted to be much slower, with annual growth between 3% and 6%.

Table 3. Population Projection for Service Area

Year	State Data Population Source: MAG MAZ 219010	Developer Data	
		Dwelling Units (single family)	Population (2 people per unit)
<i>Actual</i>			
2010	N/A	70	140
2015	N/A	411	822
2020	N/A	1,160	2,320
2022	N/A	1,490	2,980
<i>Projected</i>			
2025	5781	1,700	3,400
2030	7677	2,300	4,600
2035	8365	2,900	5,800
2045	8905	4,100	8,200
Build Out (2062)	8944	6,200	12,400

2.3.2 Land Use

The Maricopa Association of Governments (MAG) Land Use Explorer was utilized to obtain existing and projected future land use for the Saddlebrooke Ranch WRP Service Area. The MAG Land Use Explorer includes data from Maricopa and Pinal Counties that is published as of 2020.

The existing and future land usage for the Saddlebrooke Ranch WRP Service Area is shown in the following Table 4.

Table 4. Land Use, % of Total, Existing & Future Projections

Land Use Sector	Existing Conditions		Future Projections	
	Area, Acres	Area, % of Total	Area, Acres	Area, % of Total
Single Family	454	18.2%	1,500	60.0%
Industrial	3	0.1%	3	0.1%
Transportation	45	1.8%	150	6.0%
Open Space	258	10.3%	847	33.9%
Undeveloped	1,740	69.6%	0	0.0%
Total	2,500	100%	2,500	100%

2.3.3 Wastewater Flows

Metered Flow Records

Table 5 illustrates observed flow records for flows at the Saddlebrooke Ranch WRP for the year 2023. The current capacity of the Saddlebrooke Ranch WRP is 0.249 MGD. The max hour capacity is 1.0 MGD while the max day capacity is 0.5 MGD.

Table 5. Saddlebrooke Ranch WRP Existing Wastewater Flow Rates

Parameter	Value
Range of Flow, MGD	0.087 – 0.150
Max Month, MGD	0.137
Min Month, MGD	0.103
Max Day, MGD	0.150
Min Day, MGD	0.087

Future Flow Projections

Future flow projections are based on dwelling unit estimations based on master planned growth. Projections are also based on influent records from 2017 to 2022. The average daily flow per person is 40 gallons. See Table 6.

Table 6. Saddlebrooke Ranch WRP Wastewater Flow Projections

Year	Dwelling Units (single family)	Average Daily Flow MGD
2025	1,700	0.136
2030	2,300	0.184
2035	2,900	0.232
2045	4,100	0.328
Build Out (2062)	6,200	0.496

*Average Daily Flow = Dwelling Units x 2 (people per home) x 40 gallons per person

The intent of this Plan Amendment application is not to address the build out scenario or an expansion of the Service Area. A separate amendment will be submitted when further expansion is considered in the future which is anticipated in approximately 20 years. The scenario is provided for planning purposes only.

2.3.4 Sewer Master Plan

The master plan, "Saddlebrooke Ranch Master Sewer Report", completed by B & R Engineering (2006), addresses the sewer collection system for the development through buildout. The report addresses design criteria to determine design flows and gravity line limitations, and gravity line sizing. According to the report, a network of gravity lines will convey sewage flow to the WRP, located at the southwest corner of the project, and no lift stations are required. The natural topography of the project slopes from northeast to southwest at 1 to 2% and pipe sizes range from 8-inch to 18-inch.

3.0 WASTEWATER TREATMENT FACILITY

3.1 TREATMENT FACILITY DESCRIPTION

3.1.1 Physical Address / Legal Description

The Saddlebrooke Ranch WRP is located at 59283 East Egret Trail, Oracle, Arizona in Township 10 South, Range 14 East, Section 7 SE 1/4.

3.1.2 Flow Rates

Influent flow rates based on wastewater flow records for 2023 are shown in Table 7. The Saddlebrooke Ranch WRP is currently designed to treat up to 0.249 MGD. The next phase of the facility, which will add an additional 0.249 MGD of capacity, has been designed and is anticipated to be online by 2025. The expansion will increase the treatable capacity to 0.498 MGD.

Table 7. Saddlebrooke Ranch WRP Existing Wastewater Flow Rates

Parameter	Value
Range of Flow, MGD	0.087 – 0.150
Max Month, MGD	0.137
Min Month, MGD	0.103
Max Day, MGD	0.150
Min Day, MGD	0.087

A summary of flow projections is shown in Table 8. The methodology for calculating these projections was included in Section 2.3.3.

Table 8. Saddlebrooke Ranch WRP Wastewater Flow Projections

Year	Dwelling Units (single family)	Average Daily Flow MGD
2025	1,700	0.136
2030	2,300	0.184
2035	2,900	0.232
2045	4,100	0.328
Build Out (2062)	6,200	0.496

3.1.3 Sewage Acceptance

The Saddlebrooke Ranch WRP receives 100% domestic sewage. The facility does not accept septic waste and there is no plan to accept septic waste in the future.

3.2 SEWAGE COLLECTION SYSTEM

3.2.1 Sewer Works Infrastructure

The Saddlebrooke Ranch WRP collection system includes a network of gravity sewer collection pipes. Gravity sewer mains range from 8-inches to 18-inches in diameter. The sewer collection system does not include any lift stations or force mains.

3.2.2 Treatment Process

The existing Saddlebrooke Ranch WRP includes a two-stage BNR activated sludge facility designed to meet permit limitations as described in the facility APP and AZPDES permit. The WRP was also designed to meet RWQS for Class B+ effluent. With the expansion project, the Saddlebrooke Ranch WRP will consist of preliminary, secondary, tertiary, and solids handling facilities. The following is a description of each facility.

Bypass Vault (proposed)

A bypass vault will be added with the proposed improvements. Influent will flow into the bypass vault prior to the influent pump station. The bypass vault will be equipped with a Muffin Monster in-line grinder for pre-treatment. A redundant bar screen and trash rack is also included in the event the Muffin Monster is down for maintenance.

Influent Pump Station (existing)

The influent pump station consists of a wetwell with two 7.5 hp submersible solids handling pumps and two VFD-controlled 3 hp pumps. Water is pumped to the splitter box.

Splitter Box (existing)

The splitter box is elevated for gravity flow into the BPUs. Flow enters from the bottom and flows over weirs to outlet chambers that are isolated with slide gates. A total of four outlets are available, one of which is in operation and directs flow into the existing BPU. A second chamber will become operational with the addition of a second BPU.

BPU (existing)

The BPU, aerobic sludge digester (ASD) and clarifier is a circular all-in-one unit with the biological processes and ASD in outer segments, and a circular clarifier in the middle. The unit is constructed as a package treatment plant complete with baffles, airlifts, mixers, and other required components. The combined volume of each BPU is 0.5 MG. The BPU uses the modified Ludzak Ettinger (mLE) flow-through activated sludge process to achieve the required nitrate limits specified in the APP. The

multi-stage centrifugal blowers located west of the BPU's provide compressed air for the treatment process.

Dewatering (proposed)

An on-site solids handling system will be added with the proposed improvements. Settled sludge will be pumped to a centrifuge where polymer will be added to the sludge stream for thickening. Dewatered solids will be discharged to a storage bin to be hauled off-site. Water removed during the process will be returned to the treatment system.

Post Equalization Basin (proposed)

A post equalization basin will also be added with the proposed improvements. The purpose of the post equalization basin is to reduce peak flows and associated impacts on downstream processes including filtration, disinfection, and final effluent handling. Discharge from the clarifiers will enter the post equalization basin where a modulating valve regulates flow to downstream treatment processes.

Tertiary Filtration (existing)

The tertiary filter is a disc filter which contains up to six woven cloth discs. Effluent flows inside the unit and out of the discs to the outlet weir.

UV Disinfection (existing)

The UV disinfection system is an open channel system that provides a dose of ultraviolet transmittance with three 40-lamp banks in series.

Flow Measurement (proposed)

Flow is measured following the post equalization basin modulating valve and following UV disinfection through MAG meters. Influent flow is not metered. Daily reclaimed water and discharges to the AZPDES outfall are measured separately and reported to ADEQ.

Effluent Pump Station (existing)

The effluent pump station consists of a concrete wetwell with duplex 10 hp vertical turbine pumps. The effluent pumps provide B+ reclaimed water to Saddlebrooke Ranch Golf Club for turf irrigation.

AZPDES Discharge (existing)

The effluent pump station is equipped with an overflow to the AZPDES discharge if the pumps are out of operation. The discharge consists of a an 18-inch effluent line that flows to Big Wash, which is adjacent to the property.

Standby Generator (existing)

A 350 kW, 480V, 3-phase diesel fuel generator provides standby power to the WRP when the utility power is out of service.

3.2.3 Products

Effluent

The Saddlebrooke Ranch WRP is designed to produce an effluent meeting Class B+ RWQS. This level of quality is enforceable through the ADEQ APP permit issued for the facility. Furthermore, the WRP must also meet effluent limits in accordance with the facility AZPDES permit which sets limits to ensure discharges do not cause or contribute to an exceedance of an applicable water quality standard when discharging to an unnamed tributary of Big Wash.

Sludge

Currently, sludge produced at the Saddlebrooke Ranch WRP is hauled off-site to the Saddlebrooke Wastewater Treatment Plant under AZPDES Permit #AZ0022853, where it is treated and dewatered prior to disposal at an authorized landfill. With the proposed expansion, Class B sludge produced by the Saddlebrooke Ranch WRP will be dewatered on-site using centrifuge dewatering technology. Dewatered sludge will be removed from the site and disposed of in an authorized landfill. The landfill that currently receives dewatered sludge is the Butterfield Station Landfill.

Butterfield Station Landfill
40404 99th Avenue
Maricopa, AZ 85139
Phone: (866) 909-4458

3.3 EFFLUENT MANAGEMENT

3.3.1 Overview

Currently there are three disposal methods for effluent from the Saddlebrooke Ranch WRP: lake impoundment, reuse at the golf course, and flow directed to an unnamed tributary of Big Wash, a Canada del Oro tributary (during emergency). In the future, other end users and uses could be

added to the disposal methods. The effluent pumps supply the Saddlebrooke Ranch Golf Club with B+ reclaimed water for turf irrigation under APP P-105334 to discharge a maximum of 0.249 MGD. The pump station is equipped with an overflow to the AZPDES discharge if the pumps are out of operation. The AZPDES discharge (Permit #AZ0024775) through Outfall 001 consists of an 18-inch effluent line adjacent to the facility. The unnamed wash leads to Big Wash.

The plan amendment proposes the next phase capacity increase to the Saddlebrooke Ranch WRP from 0.249 MGD to 0.498 MGD. Ultimate build-out capacity will be 0.747 MGD. Future effluent management will continue to include the same three disposal methods and may add groundwater recharging facilities via recharge basins and/or aquifer storage recovery wells. Recharge facilities could provide an additional option and flexibility for operators to manage increased effluent due to plant expansion.

3.3.2 Discharge

Effluent that is discharged is pumped from the effluent pump station to the golf course impoundment lake. In the event of an emergency discharge, an overflow at the effluent pump station discharges water to an unnamed tributary of Big Wash. The facility has current APP (P-105334) and AZPDES (AZ0024775) permits.

Table 9. AZPDES Discharge Outfall Location

AZPDES Outfall No.	Description	Latitude / Longitude
001	Surface Discharge to unnamed tributary of Big Wash	32° 34' 20" N 110° 56' 03" W

3.3.3 Reclamation / Reuse

The effluent is reused as reclaimed water for lake impoundment and irrigation of the Saddlebrooke Ranch Golf Club. Currently, 100% of the effluent reclaimed water is pumped to the golf course lake where it is added to well water and used for golf course irrigation.

4.0 CONSTRUCTION

4.1 CONSTRUCTION SUMMARY

The existing facility is currently capable of treating the wastewater generated from the adjacent development. The purpose of the plan amendment is to provide for expanded treatment capacity and redundancy. The Saddlebrooke Ranch WRP Expansion project has been designed and is ready for construction.

Table 10. Construction Summary

Phase	Year Capacity Available	Dwelling Units	Estimated Population	Treatment Capacity, MGD
1	2035	2,900	5,800	0.249
2	2052	4,960	9,920	0.498
3	2062	6,200	12,400	0.747

5.0 IMPACT

This plan amendment proposes to increase the capacity of the Saddlebrooke Ranch WRP by adding another BPU and clarifier for expanded treatment and redundancy. The immediate need is to provide redundancy to the current treatment capacity at the WRP while also providing for future growth of the adjacent community. Expansion of the existing Saddlebrooke Ranch WRP will provide continued benefits to the adjacent community and reduce impacts to the environment, including the following:

- The WRP provides treated effluent that may be reused as irrigation.
- The WRP reduces the potential for groundwater contamination from septic systems since adjacent residents must connect to the wastewater collection system.
- An expanded WRP will facilitate growth in the area in an environmentally safe manner.
- The WRP produces treated effluent that meets surface water quality standards where required.

6.0 PERMITS

6.1 AIR QUALITY PERMIT

The Air Quality permit for the Saddlebrooke Ranch WRP is through Pinal County and regulates discharges from the onsite diesel generator. A second generator will not be added as part of the next phase.

6.2 ADWR GROUNDWATER SAVINGS FACILITY PERMIT

There is no Groundwater Savings Facility permit for the Saddlebrooke Ranch WRP.

6.3 ADWR RECOVERY WELL PERMIT

There is no ADWR Recovery Well permit for the Saddlebrooke Ranch WRP.

6.4 ADWR UNDERGROUND STORAGE (RECHARGE) FACILITY PERMIT

There is no ADWR Underground Storage Facility permit for the Saddlebrooke Ranch WRP.

6.5 AQUIFER PROTECTION PERMIT (APP)

The current APP (P-105334) for the Saddlebrooke Ranch WRP, issued November 4, 2011, is included in Appendix H.

6.6 AZPDES / NPDES PERMIT

The current AZPDES (AZ0024775) for the Saddlebrooke Ranch WRP, issued June 20, 2018, is included in Appendix H.

6.7 AZPDES / NPDES STORM WATER POLLUTION PREVENTION PERMIT

Not applicable. A Storm Water Pollution Prevention permit will be obtained at the time of Saddlebrooke Ranch WRP Expansion construction project, as required.

6.8 CAG 208 WATER QUALITY MANAGEMENT PLAN AMENDMENT

This document will serve as the 208 Water Quality Plan Amendment for the Saddlebrooke Ranch WRP.

6.9 CONSTRUCTION PERMITS

Not applicable. The Saddlebrooke Ranch WRP expansion project is at the end of the design phase. At the time of construction, the appropriate construction permits will be obtained.

6.10 LOCAL FLOODPLAIN AND DRAINAGE REGULATIONS

The existing Saddlebrooke Ranch WRP project boundary is located outside Zone A of the mapped FEMA floodplain boundary.

6.11 NON-POINT SOURCE PERMITS

Not applicable.

6.12 RECLAIMED WATER REUSE PERMIT

A Type 2 Reclaimed Water General Permit (#106284) was issued to MPUC for B+ effluent from the Saddlebrooke Ranch WRP, which limits reuse to restricted access landscape including turf irrigation at the adjacent Saddlebrooke Ranch Golf Club.

6.13 SLUDGE MANAGEMENT

The sewage sludge from the Saddlebrooke Ranch WRP will be disposed of at an ADEQ approved landfill. The Class B sludge will be stabilized and dewatered prior to disposal. The landfill that currently receives dewatered sludge is the Butterfield Station Landfill.

Butterfield Station Landfill
40404 99th Avenue
Maricopa, AZ 85139
Phone: (866) 909-4458

7.0 FINANCE INFORMATION

The financing will consist of additional capital, paid by existing shareholders, to construct the Saddlebrooke Ranch WRP expansion project. The shareholders are ready, willing and able to finance the construction of the project. MPUC operates as a sewer utility under Title 14, Article 6 of the Arizona Administrative Code regulated by the Arizona Corporation Commission. MPUC's tariff (AOC Docket SW-03841A-00-0124, Decision No. 62757 effective 07/25/00) allows for a sewer hook-up fee (HUF) of \$30.00 and a monthly flat fee of \$49.25 per connection. The company has the authority to levy use-charges to finance construction and operation of the facilities. The golf courses will be owned and operated by the Homeowner's Association, while the Saddlebrooke Ranch WRP and reuse system will be owned and operated by MPUC. Effluent is sold to the HOA with average yearly revenues of approximately \$32,000 during the past three years.

The Engineer's Opinion of Probable Construction Costs for the expansion is summarized below.

Opinion of Probable Costs

Owner: Mountain Pass Utility Company
Project: Saddlebrooke WRP Expansion 2022

By: EN
Date: Oct-22

ITEM NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	Mobilization	1	LS	\$ 325,000.00	\$ 325,000.00
2	Pre-Construction Video	1	LS	\$ 3,000.00	\$ 3,000.00
3	Subsurface Investigation (Locate and uncover existing utilities)	40	HR	\$ 300.00	\$ 12,000.00
4	Demolition (Shed and Concrete Pad)	1	LS	\$ 5,000.00	\$ 5,000.00
5	Materials Sampling & Testing	1	LS	\$ 10,000.00	\$ 10,000.00
6	Earthwork Excavation and Compaction (Bypass Vault, New BPU, Post EQ Basin, Post EQ Discharge Vault, Dewatering Building, and Polymer Shed, etc.)	1	LS	\$ 200,000.00	\$ 200,000.00
	Subtotal				\$ 555,000.00
	HEADWORKS BYPASS VAULT				
7	Concrete Vault	1	LS	\$ 20,000.00	\$ 20,000.00
8	Stop Gate	4	EA	\$ 1,500.00	\$ 6,000.00
9	Bar Screen and Trash Screen	1	EA	\$ 15,000.00	\$ 15,000.00
10	Muffin Monster	1	EA	\$ 75,000.00	\$ 75,000.00
11	Hand Rail	30	LF	\$ 150.00	\$ 4,500.00
12	Temporary Bypass Pumping	1	LS	\$ 20,000.00	\$ 20,000.00
13	Grating	1	LS	\$ 8,000.00	\$ 8,000.00
	Subtotal of Bypass Vault				\$ 148,500.00
	SPLITTER BOX MODIFICATIONS				
14	Support Modifications	1	LS	\$ 8,000.00	\$ 8,000.00
15	Adjustable V-Notch Weir Gate	3	EA	\$ 20,000.00	\$ 60,000.00
16	Grating	1	LS	\$ 10,000.00	\$ 10,000.00
17	12-Inch Welded Steel Outlet Piping to New BPU	50	LF	\$ 350.00	\$ 17,500.00
18	12-Inch Pipe Supports	3	EA	\$ 3,000.00	\$ 9,000.00
	Subtotal of Splitter Box Modifications				\$ 104,500.00
	BIOLOGICAL PROCESSING UNIT (BPU)				
19	Concrete Foundation	131	CY	\$ 900.00	\$ 117,900.00
20	Anti-Corrosion Coating for Concrete Foundation	1	LS	\$ 50,000.00	\$ 50,000.00
21	Biological Treatment Unit (BPU)	1	LS	\$ 1,955,000.00	\$ 1,955,000.00
22	6-Inch DIP (Clarifier Drain)	50	LF	\$ 144.00	\$ 7,200.00
23	8-Inch Plug Valve	1	EA	\$ 5,000.00	\$ 5,000.00
24	6-Inch Plug Valve	1	EA	\$ 4,000.00	\$ 4,000.00
25	4-Inch Plug Valve	2	EA	\$ 3,300.00	\$ 6,600.00
26	10-Inch Butterfly Valve	1	EA	\$ 3,000.00	\$ 3,000.00
27	10-Inch Check Valve	1	EA	\$ 3,000.00	\$ 3,000.00
28	10-Inch Rubber Expansion Joint	1	EA	\$ 2,000.00	\$ 2,000.00
	Subtotal of BPU				\$ 2,153,700.00
	BLOWER SYSTEM MODIFICATIONS				
29	Centrifugal Blower	1	LS	\$ 33,000.00	\$ 33,000.00
30	Blower Piping	1	LS	\$ 18,000.00	\$ 18,000.00
31	8-Inch Butterfly Valve	1	EA	\$ 2,300.00	\$ 2,300.00
32	8-Inch Check Valve	1	EA	\$ 2,200.00	\$ 2,200.00
33	8-Inch Rubber Expansion Joint	1	EA	\$ 1,500.00	\$ 1,500.00
34	Pressure Gauge	1	EA	\$ 220.00	\$ 220.00
	Subtotal of Blower System Modifications				\$ 57,220.00
	POST EQUALIZATION BASIN				
35	Concrete Foundation	25	CY	\$ 900.00	\$ 22,500.00
36	Tank with Stairs and Landing	1	LS	\$ 690,000.00	\$ 690,000.00
37	Level Sensor	1	EA	\$ 6,000.00	\$ 6,000.00
38	4-Inch DIP (To 6-Inch Clarifier Drain)	40	LF	\$ 120.00	\$ 4,800.00
39	8-Inch DIP	40	LF	\$ 160.00	\$ 6,400.00
40	12-Inch DIP	10	LF	\$ 200.00	\$ 2,000.00
41	12-Inch Plug Valve	1	EA	\$ 6,500.00	\$ 6,500.00
42	8-Inch Plug Valve	1	EA	\$ 5,000.00	\$ 5,000.00
43	4-Inch Plug Valve	1	EA	\$ 3,300.00	\$ 3,300.00
	Subtotal of Post Equalization Basin				\$ 746,500.00
	POST EQUALIZATION DISCHARGE VAULT				
44	Concrete Vault	1	LS	\$ 20,000.00	\$ 20,000.00
45	8-Inch Restrained Coupling	2	EA	\$ 400.00	\$ 800.00
46	8-Inch DIP	70	LF	\$ 160.00	\$ 11,200.00
47	8-Inch Plug Valve	3	EA	\$ 3,200.00	\$ 9,600.00
48	8-Inch Plug Valve and Electric Valve Actuator	1	EA	\$ 35,000.00	\$ 35,000.00
49	8-Inch Mag Flow Meter	1	EA	\$ 6,000.00	\$ 6,000.00
50	8-Inch Restrained Flanged Coupling Adapter	1	EA	\$ 650.00	\$ 650.00
51	Hand Rail	1	LS	\$ 5,000.00	\$ 5,000.00
52	4-Inch Drain Assembly	1	LS	\$ 400.00	\$ 400.00
	Subtotal of Post Equalization Discharge Vault				\$ 88,650.00

TERTIARY DISC FILTER MODIFICATIONS					
53	Additional Disc Filter	1	EA	\$ 20,000.00	\$ 20,000.00
Subtotal of Tertiary Disc Filter Modifications					\$ 20,000.00
DEWATERING BUILDING					
54	Concrete Foundation (Dewatering Building and Polymer Shed)	25	CY	\$ 900.00	\$ 22,500.00
55	Dewatering Building	1	LS	\$ 120,000.00	\$ 120,000.00
56	4-Inch DIP	152	LF	\$ 120.00	\$ 18,240.00
57	4-Inch Plug Valve	1	EA	\$ 3,300.00	\$ 3,300.00
58	6-Inch DIP	30	LF	\$ 144.00	\$ 4,320.00
59	6-Inch Plug Valve	2	EA	\$ 4,000.00	\$ 8,000.00
60	6-Inch Restrained Coupling	1	EA	\$ 1,000.00	\$ 1,000.00
61	4-Inch Ultrasonic Flow Meter	1	EA	\$ 6,000.00	\$ 6,000.00
62	Roll Off Dumpster	1	LS	\$ 20,000.00	\$ 20,000.00
63	Progressive Cavity Pump	1	LS	\$ 24,000.00	\$ 24,000.00
64	Aldec 75 Centrifuge Decanter	1	LS	\$ 425,000.00	\$ 425,000.00
65	Centrifuge Spare Rotating Assembly	1	LS	\$ 230,000.00	\$ 230,000.00
66	Manual Trolley Hoist	1	EA	\$ 6,000.00	\$ 6,000.00
67	Pressure Gauge	1	EA	\$ 800.00	\$ 800.00
68	4-Inch Pipe Supports	5	EA	\$ 250.00	\$ 1,250.00
69	2.5-Inch DIP and Fittings	25	LF	\$ 86.00	\$ 2,150.00
70	2-Inch Ball Valve	1	EA	\$ 1,000.00	\$ 1,000.00
71	2.5-Inch Ball Valve	1	EA	\$ 1,200.00	\$ 1,200.00
72	Polymer Shed	1	LS	\$ 35,000.00	\$ 35,000.00
73	Polymer Skid	1	EA	\$ 19,000.00	\$ 19,000.00
74	3/4-Inch PVC	110	LF	\$ 16.00	\$ 1,760.00
75	Eye Wash Station	1	LS	\$ 3,000.00	\$ 3,000.00
76	2-Inch PVC	30	LF	\$ 22.00	\$ 660.00
77	4-Inch Drain Assembly	3	EA	\$ 400.00	\$ 1,200.00
78	Bollard Protection Post	2	EA	\$ 420.00	\$ 840.00
79	Grating	1	LS	\$ 16,000.00	\$ 16,000.00
Subtotal of Dewatering Building					\$ 972,220.00
PLANT REUSE WATER SYSTEM MODIFICATIONS					
80	Plant Reuse Water	1	LS	\$ 32,000.00	\$ 32,000.00
Subtotal of Plant Reuse Water System Modifications					\$ 32,000.00
SITE PIPING					
81	10-Inch Welded Steel Air Piping to New BPU	90	LF	\$ 160.00	\$ 14,400.00
82	8-Inch PVC (Clarified Water)	20	LF	\$ 120.00	\$ 2,400.00
83	6-Inch PVC (Clarifier Drain)	270	LF	\$ 95.00	\$ 25,650.00
84	4-Inch PVC (Anoxic and Aeration Drains)	50	LF	\$ 80.00	\$ 4,000.00
85	4-Inch PVC (To 6-Inch Clarifier Drain)	20	LF	\$ 80.00	\$ 1,600.00
86	8-Inch PVC (Post Eq to Post Eq Vault)	40	LF	\$ 120.00	\$ 4,800.00
87	12-Inch PVC (Post Eq Influent)	100	LF	\$ 180.00	\$ 18,000.00
88	4-Inch PVC (Post Eq Vault Drain)	30	LF	\$ 80.00	\$ 2,400.00
89	6-Inch PVC (Sludge Line)	270	LF	\$ 95.00	\$ 25,650.00
90	Influent Wet Well Penetration	2	EA	\$ 1,200.00	\$ 2,400.00
91	4-Inch PVC (Polymer Shed Drain to Dewatering Building Drain)	50	LF	\$ 80.00	\$ 4,000.00
92	2-Inch PVC (Reclaimed Water Main)	290	LF	\$ 52.00	\$ 15,080.00
93	2-Inch PVC (Washdown Water Main)	140	LF	\$ 52.00	\$ 7,280.00
94	6-Inch PVC (Dewatering Building Drain)	280	LF	\$ 95.00	\$ 26,600.00
95	Manhole	1	EA	\$ 6,000.00	\$ 6,000.00
Subtotal of Site Piping					\$ 160,260.00
ELECTRICAL					
96	Blower Controls	1	LS	\$ 30,000.00	\$ 30,000.00
97	New BPU Electrical	1	LS	\$ 55,000.00	\$ 55,000.00
98	Post Equalization Basin Level Sensor Controls	1	LS	\$ 18,000.00	\$ 18,000.00
99	Post Equalization Basin Lighting	1	LS	\$ 15,000.00	\$ 15,000.00
100	8-Inch Modulating Valve Controls	1	LS	\$ 12,000.00	\$ 12,000.00
101	8-Inch Ultrasonic Flow Meter Controls	1	LS	\$ 12,000.00	\$ 12,000.00
102	Aldec 75 Centrifuge Controls	1	LS	\$ 25,000.00	\$ 25,000.00
103	Progressive Cavity Pump Controls	1	LS	\$ 18,000.00	\$ 18,000.00
104	4-Inch Ultrasonic Flow Meter Controls	1	LS	\$ 4,000.00	\$ 4,000.00
105	Promix Polymer Skid Controls	1	LS	\$ 8,000.00	\$ 8,000.00
106	Polymer Shed Lighting	1	LS	\$ 15,000.00	\$ 15,000.00
107	Dewatering Building Electrical and Lighting	1	LS	\$ 65,000.00	\$ 65,000.00
108	Plant Reuse Water Submersible Pump Controls	1	LS	\$ 25,000.00	\$ 25,000.00
109	Splitter Box Lighting	1	LS	\$ 15,000.00	\$ 15,000.00
110	MCC Modifications	1	LS	\$ 100,000.00	\$ 100,000.00
Subtotal of Electrical					\$ 417,000.00
SCADA INTEGRATION					
111	SCADA Integration	1	LS	\$ 65,000.00	\$ 65,000.00
Subtotal SCADA Integration					\$ 65,000.00
Construction Subtotal					\$ 5,521,000
Contingency 20%					\$ 1,104,000
TOTAL CONSTRUCTION					\$ 6,625,000
In providing opinions of probable construction cost, the Client understands that the Engineer has no control over costs or the price of labor, equipment or materials, or over the Contractor's method of pricing, and that the opinion of probable construction cost provided herein is made on the basis of the Engineer's qualifications and experience. The Engineer makes no warranty, expressed or implied, as to the accuracy of such opinions compared to bid or actual costs.					

MOUNTAIN PASS UTILITY COMPANY

9532 East Riggs Road, Sun Lakes, Arizona 85248

May 12, 2023

Arizona Department of Environmental Quality
Groundwater Protection Value Stream
1110 W. Washington Street
Phoenix, AZ 85007

Re: Mountain Pass Utility Company Water Reclamation Plant (WRP) Expansion
Significant Amendment to Aquifer Protection Permit No. 105334
Letter of Financial Assurance

To Whom it May Concern:

As the Mountain Pass Utility Company's Chief Financial Officer, I certify that the Mountain Pass Utility Company has the financial capability to construct, operate, maintain, close, and post-closure care of the Water Reclamation Plant. The attached cost summary provided by our consultant, Sunrise Engineers, is a true and best estimate of the total costs associated with construction and operation of the WRP Expansion. The company has the authority to levy use-charges to finance construction, operation, closure and post-closure care costs associated with the facility.

I verify under penalty of perjury that the above is true and correct.

Sincerely,
Mountain Pass Utility Company



Brian Smith, Chief Financial Officer

Enclosures: Cost Summary

APPENDICES

Appendix A – 208 Checklist

Appendix B – Self Certification Letter

Appendix C – Letters of Support

Appendix D – Legal Description

Appendix E – Record of Public Participation

Appendix F – Communications

Appendix G – Maps

Appendix H – Saddlebrooke Ranch WRP APP & AZPDES Permits

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APPENDIX A

208 Checklist

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**Section 208 Clean Water Act
40 CFR Part 130.6**

Requirement	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
<p><u>AUTHORITY</u></p> <p>1) Proposed Designated Management Agency (DMA) shall self-certify that it has the authorities required by Section 208(c)(2) of the Clean Water Act to implement the plan for its proposed planning and service areas. Self-certification shall be in the form of a legal opinion by the DMA or entity attorney.</p>	<p>MPUC has the authority to implement this plan. MPUC is a private utility company and is considered as a WMU within the CAG Section 208 Water Quality Management Plan. WMUS cannot be a DMA. A self-certification letter is included in Appendix B.</p>	<p>Section 1.1.2 Section 2.1.2 Appendix B</p>
<p><u>20-YEAR NEEDS</u></p> <p>Clearly describe the existing wastewater treatment (WWT) facilities:</p> <p>2) Describe existing WWT facilities.</p>	<p>The existing Saddlebrooke Ranch WRP consists of a two-stage BNR activated sludge facility with a capacity of 0.249 MGD.</p> <p>Treated effluent from Saddlebrooke Ranch WRP is pumped from the effluent pump station to the adjacent golf course impoundment lake. The effluent is reused as reclaimed water for lake impoundment and irrigation of the Saddlebrooke Ranch Golf Club.</p>	<p>Section 3.2.2 Section 3.3</p>
<p>3) Show WWT certified and service areas for private utilities and sanitary district boundaries if possible.</p>	<p>The MPUC Service Area is described in the report and shown as an exhibit in Appendix G. The Service Area is located approximately one-mile northwest of Oracle Junction and 22 miles north of Tucson along Highway 77. The Service Area includes approximately 2,500 acres of development.</p>	<p>Section 2.1.1 Appendix G</p>
<p>Clearly describe alternatives and the recommended WWT plan:</p> <p>4) Provide POPTAC population estimates (or COG-approved estimates only where POPTAC not available) over 20-year period.</p>	<p>Population projections are based on dwelling unit estimations based on master planned growth. Projections assume an occupancy density of two people per single family unit. Population estimates show anticipated growth in the Saddlebrooke Ranch WRP Service Area from about 2,980 in 2022 to 8,200 people in 2045.</p>	<p>Section 2.3.1</p>
<p>5) Provide wastewater flow estimates over the 20-year planning period.</p>	<p>Future wastewater flow estimates are based on dwelling unit estimations based on master planned growth. Projections are also based on influent records from 2017 to 2022. Average daily flow in 2045 is estimated at 0.328 MGD.</p>	<p>Section 2.3.3</p>
<p>6) Illustrate the WWT planning and service areas.</p>	<p>The Service Area is shown in Appendix G.</p>	<p>Appendix G</p>

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**Section 208 Clean Water Act
40 CFR Part 130.6**

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Requirement	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
7) Describe the type and capacity of the recommended WWT Plant.	The current constructed facility capacity and permitted capacity flow rates are summarized in Section 2.1.4. The Saddlebrooke Ranch WRP is currently designed for 0.249 MGD with a permitted flow of 0.249 MGD. An expansion project has been designed, is ready for construction, and would add an additional 0.249 MGD to the next phase capacity (total capacity of 0.498 MGD) with an ultimate buildout capacity of 0.747 MGD.	Section 2.1.4, Table 2
8) Identify water quality problems, consider alternative control measures, and recommend solution for implementation.	No water quality problems have been identified as the facility is designed to meet the water quality parameters of the APP and the AZPDES permit.	Section 5.0
9) If private WWT utilities with certificated areas are within the proposed regional service area, define who (municipal or private utility) serves what area and when. Identify whose sewer lines can be approved in what areas and when?	The Saddlebrooke Ranch WRP is owned and operated by MPUC for the defined Service Area. There are no other WMUs within the Service Area.	Appendix G
10) Describe method of effluent disposal and reuse sites (if appropriate).	The Saddlebrooke Ranch WRP produces B+ reclaimed water. Currently there are three disposal methods for effluent from the WRP: lake impoundment, reuse at the adjacent golf course, and flow directed to an unnamed tributary of Big Wash (during emergency). 100% of the effluent is currently being used for the golf course. Future effluent management will continue to include the same disposal methods as the current permit is sufficient for added flows due to the proposed expansion. Effluent disposal locations are described in the report.	Section 3.3
11) If Sanitary Districts are within a proposed planning or service area, describe who serves the Sanitary Districts and when.	Does not apply.	
12) Describe ownership of land proposed for plant sites and reuse areas.	The land for the Saddlebrooke Ranch WRP is owned by MPUC. The golf course is owned by the developer and operated by the HOA.	Section 2.1.2
13) Address time frames in the development of the treatment works.	The Saddlebrooke Ranch WRP expansion project has been designed and is ready for construction.	Section 4.1

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**Section 208 Clean Water Act
40 CFR Part 130.6**

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Requirement	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
14) Address financial constraints in the development of the treatment works.	MPUC does not anticipate financial constraints in the development of the expansion project. Financing will consist of capital from existing shareholders to construct the project.	Section 7.0
15) Describe how discharges will comply with EPA municipal and industrial stormwater discharge regulations (Section 405, CWA).	The Saddlebrooke Ranch WRP is permitted to discharge through AZPDES permit. A SWPPP will be obtained at the time of construction of the expansion project.	Section 6.6
16) Describe how open areas and recreational opportunities will result from improved water quality and how those will be used.	Effluent from the Saddlebrooke Ranch WRP is used for lake impoundment and irrigation of the Saddlebrooke Ranch Golf Club. Effluent may be used for other end users should the opportunity arise.	Section 3.3.3
17) Describe potential use of lands associated with treatment works and increased access to water-based recreation, if applicable.	As described in 16 above, treated effluent from Saddlebrooke Ranch WRP is reused for beneficial use, including lake impoundment and irrigation of the Saddlebrooke Ranch Golf Club.	Section 3.3.3
<u>REGULATIONS</u>	The Saddlebrooke Ranch WRP has a valid APP (APP P-105334), and AZPDES permit (AZ0024775). MPUC has a Type 2 Reclaimed Water General permit (106284) for B+ effluent from the WRP.	Section 6.0
18) Describe types of permits needed, including AZPDES, APP and reuse.		
19) Describe restrictions on AZPDES permits, if needed, for discharge and sludge disposal.	The AZPDES permit allows surface discharge at one outfall point for emergency discharges only.	Section 6.6
20) Provide documentation of communication with ADEQ Permitting Section 30 to 60 days prior to public hearing regarding the need for specific permits.	Pending	
21) Describe pretreatment requirements and method of adherence to requirements (Section 208 (b)(2)(D), CWA).	No pretreatment requirements.	
22) Identify, if appropriate, specific pollutants that will be produced from excavations and procedures that will protect ground and surface water quality (Section 208(b)(2)(K) and Section 304, CWA).	A SWPPP will be obtained at the time of construction of the expansion project.	Section 6.7

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**Section 208 Clean Water Act
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Requirement	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
23) Describe alternatives and recommendation in the disposition of sludge generated. (Section 405 CWA)	Currently, sludge produced at the Saddlebrooke Ranch WRP is hauled off-site to the Saddlebrooke WWTP where it is treated and dewatered prior to disposal at Butterfield Station Landfill. With the proposed expansion, sludge produced by the WRP will be dewatered on-site using centrifuge dewatering technology. Dewatered sludge will be removed from the site for disposal at Butterfield Station Landfill.	Section 3.2.3
24) Define any nonpoint issues related to the proposed facility and outline procedures to control them.	There are no anticipated or known non-point pollution issues.	Section 6.11
25) Describe process to handle all mining runoff, orphan sites and underground pollutants, if applicable.	No mining run-off, orphan sites, or known underground pollutants are involved with the Saddlebrooke Ranch WRP.	N/A
26) If mining related, define where collection of pollutants has occurred, and what procedures are going to be initiated to contain contaminated areas.	N/A	N/A
27) If mining related, define what specialized procedures will be initiated for orphan sites, if applicable.	N/A	N/A
<u>CONSTRUCTION</u>		
28) Define construction priorities and time schedules for initiation and completion.	The Saddlebrooke Ranch WRP Expansion project has been designed and is ready for construction. The facility will be expanded from 0.249 MGD to 0.498 MGD. Ultimate buildout capacity is 0.747 MGD.	Section 4.1
29) Identify agencies that will construct, operate and maintain the facilities and otherwise carry out the plan.	MPUC is the owner and operator of the facility.	Section 2.1.2

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**Section 208 Clean Water Act
40 CFR Part 130.6**

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Requirement	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
30) Identify construction activity-related sources of pollution and set forth procedures and methods to control, to the extent feasible, such sources.	When the Saddlebrooke Ranch WRP expansion is under construction, a general SWPPP will be obtained by the contractor to minimize pollution.	Section 6.7 Section 6.9
<u>FINANCING AND OTHER MEASURES NECESSARY TO CARRY OUT THE PLAN</u>	N/A	N/A
31) If plan proposes to take over certificated private utility, describe how, when and financing will be managed.		
32) Describe any significant measure necessary to carry out the plan, e.g., institutional, financial, economic, etc.	No significant measures are required to carry out the plan. Shareholders are ready and willing to finance the construction of the project.	
33) Describe proposed method(s) of community financing.	MPUC's tariff allows for a sewer hook-up fee of \$30 and a monthly flat fee per connection of \$49.25.	Section 7.0
34) Provide financial information to assure DMA has financial capability to operate and maintain wastewater system over its useful life.	Refer to the included Financial Assurance Letter signed by the Chief Financial Officer dated May 12, 2023. The letter was prepared in support of the Aquifer Protection Amendment.	Section 7.0
35) Provide a time line outlining period of time necessary for carrying out plan implementation.	The expansion of the Saddlebrooke WRP from a total capacity of 0.249 MGD to 0.498 MGD is anticipated to be completed and online in 2025. Ultimate build-out capacity of 0.747 MGD is anticipated by 2062.	Section 4.1
36) Provide financial information indicating the method and measures necessary to achieve project financing. (Section 201 CWA or Section 604 may apply).	Financing will consist of capital from existing shareholders to construct the project.	Section 7.0

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**Section 208 Clean Water Act
40 CFR Part 130.6**

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Requirement	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
<u>IMPLEMENTABILITY</u> 37) Describe impacts and implementability of Plan. 38) Describe impacts on existing wastewater (WW) facilities, e.g., Sanitary district, infrastructure/facilities and certificated areas.	The change proposed, which is to increase the capacity of the Saddlebrooke Ranch WRP, will not impact existing wastewater facilities. The effluent discharge strategy will remain the same, with effluent discharging first to the lake impoundment then reuse/irrigation of the Saddlebrook Ranch Golf Club. Surface discharge to an unnamed tributary of Big Wash will only be used in an emergency.	Section 3.3.1
39) Describe how and when existing package plants will be connected to a regional system.	N/A	N/A
40) Describe the impact on communities and businesses affected by the plan.	The WRP expansion will improve the capability and operational flexibility to treat existing and new sewage flows as the Saddlebrooke Ranch retirement community continues to add new residents and businesses (retirement amenities).	
41) If a municipal WWT system is proposed, describe how WWT service will be provided until the municipal system is completed; i.e., will package plants and septic systems be allowed and under what circumstances (Interim services).	The Saddlebrooke Ranch WRP is a private utility in unincorporated Pinal County. Package plants and septic systems will not be allowed within the existing Service Area defined within this Amendment.	N/A
<u>PUBLIC PARTICIPATION</u> 42) Submit copy of mailing list used to notify the public of the public hearing on the 208 Amendment. (40 CFR, Chapter 1, part 25.5)	Pending	
43) List location where documents are available for review at least 30 days before public hearing.	Pending	

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**Section 208 Clean Water Act
40 CFR Part 130.6**

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Requirement	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
44) Submit copy of the public notice of the public hearing as well as an official affidavit of publication from the area newspaper. Clearly show the announcement appeared in the newspaper at least 45 days before the hearing.	Pending	
45) Submit affidavit of publication for official newspaper publication.	Pending	
46) Submit responsiveness summary for public hearing.	Pending	

APPENDIX B

Self Certification Letter

DRAFT

MOUNTAIN PASS UTILITY COMPANY

9532 East Riggs Road, Sun Lakes, Arizona 85248

August 30, 2023

Central Arizona Governments
Attention: Andrea Robles, Executive Director
2540 W. Apache Trail, Suite 108
Apache Junction, Arizona 85219

Re: Mountain Pass Utility Company, 208 Plan Amendment— Self Certification

Dear Ms. Robles:

On behalf of Mountain Pass Utility Company, I hereby certify that (i) Mountain Pass Utility Company owns and operates wastewater treatment works that serve customers within Arizona Corporation Commission designated service area; and pursuant to Section 208 of the Clean Water Act [33 U.S.C. §1288(c)(2)(A) through (I)] Mountain Pass Utility Company is authorized by law:

- (A) To carry out appropriate portions of the Central Arizona Governments' Areawide Water Quality Management Plan (208 Plan) developed under Section 208 of the Clean Water Act;
- (B) To manage effectively waste treatment works and related facilities serving such area in conformance with the 208 Plan;
- (C) Directly or by contract, to design and construct new works, and to operate and maintain new and existing works as required by the 208 Plan;
- (D) To accept and utilize grants, or other funds from any source, for waste treatment management purposes;
- (E) To raise revenues, including the assessment of waste treatment charges;
- (F) To incur short- and long-term indebtedness;
- (G) To assure in implementation of the 208 Plan that each participating community pays its proportionate share of treatment costs;

(H) To refuse to receive any wastes from any municipality or subdivision thereof, which does not comply with any provisions of the 208 Plan applicable to such area; and

(I) To accept for treatment industrial wastes.

Please let me know if your department needs any additional information in connection with this self-certification.

Sincerely,
Mountain Pass Utility Company



Brian Smith, Vice President

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APPENDIX C

Letters of Support

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Leo Lew
County Manager



PINAL COUNTY
WIDE OPEN OPPORTUNITY

Himanshu Patel
Deputy County Manager

Mary Ellen Sheppard
Deputy County Manager

Brent Billingsley
Director Community Development

September 12, 2023

Travis Ashbaugh
Central Arizona Governments 2540
W. Apache Trail, Suite 108
Apache Junction, AZ 85120

Re: SADDLEBROOKE RANCH WATER RECLAMATION PLANT EXPANSION

Dear Mr. Ashbaugh:

This constitutes Pinal County's comment/response with respect to the expansion of the Saddlebrooke Ranch WRP is in Pinal County, approximately one-mile northwest of Oracle Junction and 22 miles north of Tucson along Highway 77. The service area includes approximately 2,500 acres of development northeast of the WRP.

Pinal County has long maintained that 208 applications should clearly affirm whether adjoining political subdivisions and wastewater providers within the CAG Region support CAG 208 applications. Pinal County supports the Saddlebrooke Ranch efforts to obtain a CAG 208 Amendment and recommends approval of their application.

Should you have any further questions or concerns, do not hesitate to discuss the matter with me at your convenience.

Sincerely,

Atul Shah, PE
Pinal County Community Development
Aquifer Protection Division

COMMUNITY DEVELOPMENT
Aquifer Protection Division

85 North Florence Street, Building F, PO Box 2973, Florence, AZ 85132 T 520-866-6442 FREE 888-431-1311 F 520-866-6007

www.pinalcountyaz.gov

APPENDIX D

Legal Description

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Appendix D – Legal Description

The Saddlebrooke Ranch WRP is located in Township 10 South, Range 14 East, Section 7. The WRP service area includes two full sections and five partial sections.

Table D-1. Legal Description (Service Area)

Township / Range	Sections	
	Full	Partial (Approximate)
T10S R14E	5	4 (N ½), 7 (SE ¼), 8 (N ½, SW ¼)
T9S R14E	32	33 (S ½), 34 (S ½)

APPENDIX E

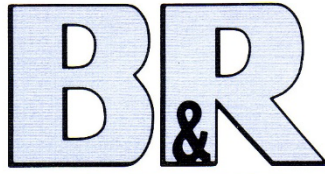
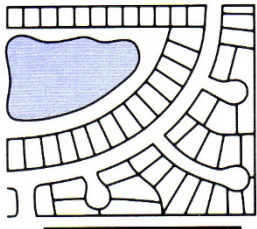
Record of Public Participation

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APPENDIX F

Communications

DRAFT



ENGINEERING, INC.

CIVIL ENGINEERING • LAND DEVELOPMENT

9666 E. Riggs Road, Suite 118, Sun Lakes, AZ 85248-7404 • (480) 895-0799 • FAX (480) 895-5557

June 10, 2024

Andrea Robles, Executive Director
Central Arizona Governments
2540 W. Apache Trail, Suite 108
Apache Junction, AZ 85120

Re: **Mountain Pass Utility Company SaddleBrooke Ranch Water Reclamation Plant**

Dear Ms. Robles,

In response to your comments received 6/10/24, please see responses to each comment below:

1. *PDF Page 11, within Table 3, regarding the "State Data Population Source" label of "MAG MAZ 219010." What is an MAZ? Should it be TAZ for Traffic Analysis Zone?*

Response: Based on email correspondence with Jesse Ayres at MAG, the TAZ boundary can be subdivided into smaller MAZ boundaries which was beneficial for the Saddlebrooke Ranch analysis. Refer to Attachment A for the email correspondence.

2. *PDF Page 12, in Table 6, the original comment was not addressed. The original comment was "Should this be 1.0 MGD....since that's what the ultimate Build-Out Capacity is?" The Response Sheet provided stated that it was revised but I don't see any changes (or explanation fi the 0.496 figure should remain under "Average Daily Flow" for Build-out). I'm assuming since this is average daily flow that this is different than the ultimate capacity (which I now understand is 0.747 MGD).*

Response: You are correct, the ultimate capacity (0.747 MGD) is greater than the build out average daily flow (0.496 MGD) to provide operational flexibility and to ensure effluent parameters/quality, specified in the Aquifer Protection Permit (APP), are achieved.

If you have any questions or require additional information, please contact me at 480-883-2120 or bemmerton@bnraz.com

Sincerely,
B&R Engineering, Inc.

Brent Emmerton

ATTACHMENT A
MAG Correspondence

DRAFT

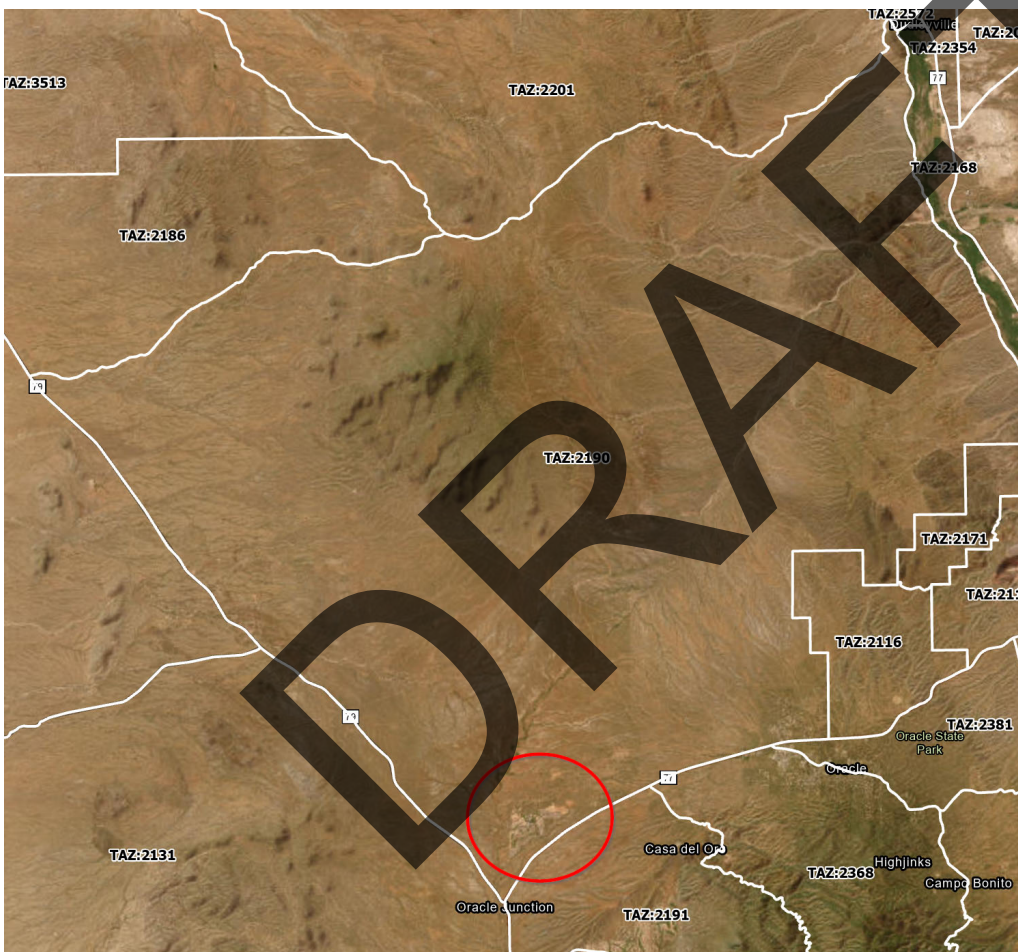
Brent Emmerton

From: Jesse Ayers <JAyers@azmag.gov>
Sent: Thursday, January 4, 2024 3:36 PM
To: Brent Emmerton
Subject: RE: Message from AZMAG.gov

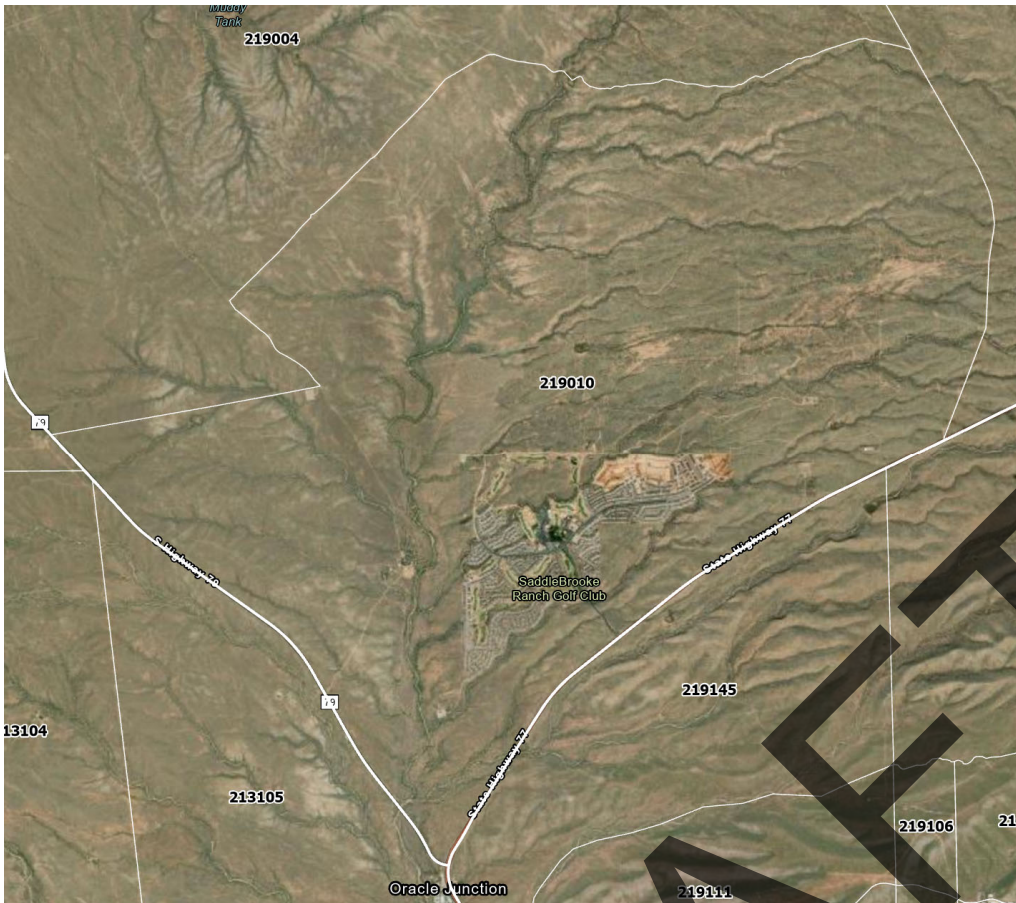
Hi Mr. Emmerton,

I can help you with your request. First I have a few questions for you: Are you doing work on behalf of one of our member agencies? (Cities and towns in Maricopa County and northern Pinal County, including the counties themselves)

How large of an area are you interested in looking at? The TAZ that Saddlebrooke Ranch is in is pretty large:



I can also offer projections by our MAZ geography, which cuts up the TAZes into smaller pieces:



Finally, what years are you interested in besides 2060? We have every year from 2020 to 2060 available.

Thanks!

-- Jesse Ayers
-- Socioeconomic Modeling Program Manager
-- Maricopa Association of Governments
-- www.azmag.gov [azmag.gov]

-----Original Message-----

From: Anubhav Bagley <abagley@azmag.gov>
Sent: Thursday, January 4, 2024 2:58 PM
To: Jesse Ayers <JAyers@azmag.gov>
Cc: Scott Wilken <SWilken@azmag.gov>
Subject: FW: Message from AZMAG.gov

Hi, Jesse - Can you please help Brent with this request? Thanks

-----Original Message-----

From: SQLService@azmag.gov <SQLService@azmag.gov>
Sent: Thursday, January 4, 2024 10:11 AM
To: Anubhav Bagley <abagley@azmag.gov>
Subject: Message from AZMAG.gov

The message below was sent to you by a visitor to the MAG website.

Name: Brent Emmerton
Email: bemmerton@bnraz.com
Page Sent From: <https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fazmag.gov%2FAbout-Us%2FContact-Us&data=05%7C02%7CJAyers%40azmag.gov%7C2925c98fa0f941a73f0008dc0d703a06%7C0bd2ae09fa4b4de6a3c3c1884d595b44%7C0%7C0%7C638400022875369123%7CUnknown%7CTWFPbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTil6lk1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=iCFuocwG5dYm1aJ6eV4UB8C590Msu7V3%2B2NqLerZnAQ%3D&reserved=0>

=====

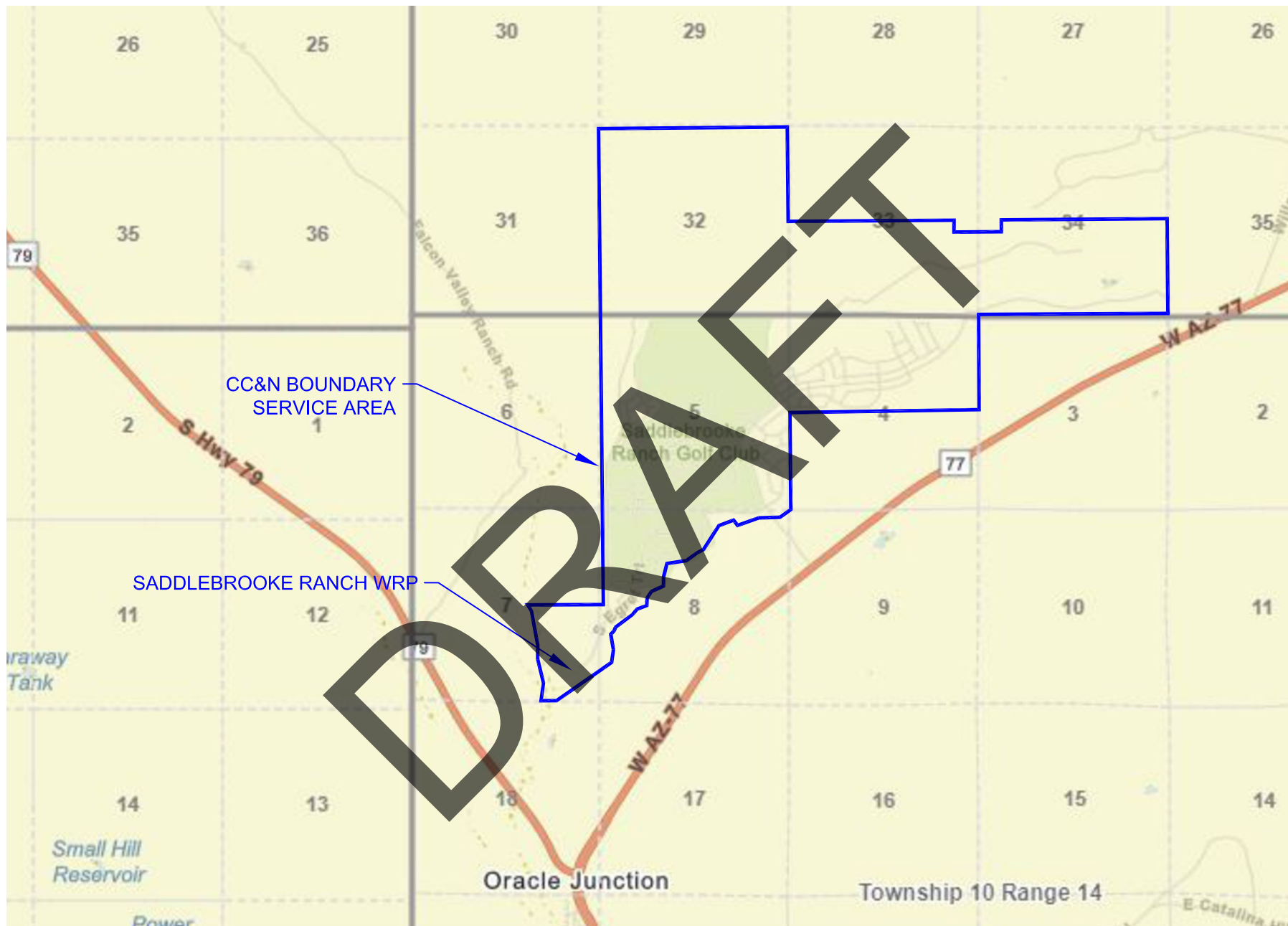
Good Morning Anubhav,
I am looking for TAZ level population growth data to 2060 in the area of Saddlebrooke Ranch (Northeast of Oracle Junction). Could you provide guidance on how I obtain this data?
Thank you,
Brent Emmerton

DRAFT

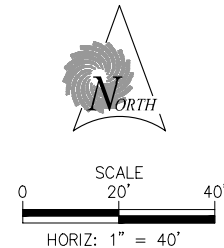
APPENDIX G

Maps

DRAFT



MOUNTAIN PASS UTILITY COMPANY CC&N SERVICE AREA



REV NO.		COMMENT		DATE	
		 SUNRISE ENGINEERING			
		1180 N MOUNTAIN SPRINGS PKWY SPRINGVILLE, UTAH 84663 TEL 801.704.5220 www.sunrise-eng.com			
MOUNTAIN PASS UTILITY CO.					
SADDLEBROOKE WRP EXPANSION					
2022					
SITE PLAN					
SET NO. 08179	DESIGNED EN	DRAWN EN	CHECKED DA	SHEET NO. 7 of 55	P1

P:\mountain pass utility company\08179 saddlebrook wrp expansion\Design\DWG\08179 - SITE PLAN_v2.dwg Feb 24, 2023 2:05pm alex.maskovich

APPENDIX H

Saddlebrooke Ranch WRP APP & AZPDES Permits

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STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-105334
PLACE ID 13097, LTF 53551
SIGNIFICANT AMENDMENT

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A.A.C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, Mountain Pass Utility Company is hereby authorized to operate the SaddleBrooke Ranch Water Reclamation Plant, 59283 East Phoebe Lane, in Pinal County, Arizona, over groundwater of the northern portion of the Upper Santa Cruz Sub-basin, located in the Tucson Active Management Area, in Township 10 S, Range 14 E, Section 07, NE ¼, NE ¼, SW ¼, of the Gila and Salt River Baseline and Meridian.


This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods) unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant and as determined at the applicable POC occurs as a result of the discharge from the facility.

1.1 PERMITTEE INFORMATION

Facility Name: SaddleBrooke Ranch Water Reclamation Plant (WRP)
Facility Address: 59283 East Phoebe Lane
Tucson, Arizona 85739
County: Pinal
Permittee: Mountain Pass Utility Company
Permittee Address: 9532 E. Riggs Road
Sun Lakes, Arizona 85248
Facility Contact: Steve Soriano, Vice President
Emergency Phone No.: (480) 895-9200
Latitude/Longitude: 32° 34' 21" N/ 110° 56' 00" W
Legal Description: Township 10S, Range 14E, Section 07, of the Gila and Salt River Baseline and Meridian

1.2 AUTHORIZING SIGNATURE



Michael A. Fulton, Director
Water Quality Division
Arizona Department of Environmental Quality

Signed this 4th day of November, 2011

THIS PERMIT SUPERCEDES ALL PREVIOUS PERMITS

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]**2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]**

Mountain Pass Utility Company is authorized to operate the SaddleBrooke Ranch Water Reclamation Plant (WRP) with a design flow of 249,000 gallons per day (gpd). The treatment process includes headworks with a bar rack screen and comminutor, an influent pump station with flow meter, a package plant with anoxic and aerobic zones for nitrification/denitrification, an integral clarifier and an aerobic digester, an equalization basin, an automatic backwash traveling bridge filter, two ultraviolet (UV) disinfection units, an effluent pump station (for distributing reclaimed water), and a centrifuge (for dewatering sludge on-site). The equalization basin, an effluent pump station, and a centrifuge will be installed in the future as per Section 3.0, Compliance Schedule.

Effluent may be discharged by gravity to Big Wash, a tributary to the Cañada del Oro in the Upper Santa Cruz River Basin under a valid AZPDES permit, or used for beneficial purposes under a valid reclaimed water permit (A.A.C. R18-9 Article 7). The WRP is classified for Class B+ reclaimed water according to A.A.C. R18-11, Article 3.

Sludge shall be removed from the clarifier and transferred to the aerobic digester. The sludge shall be pumped from the aerobic digester and hauled to the SaddleBrooke Wastewater Treatment Facility (P-100356), located in Tucson, Arizona, where the sludge shall be managed in accordance with applicable state and federal regulations. In the future, the permittee may install a centrifuge to receive the sludge directly from the aerobic digester for on-site dewatering. According to Compliance Schedule once the dewatering equipment is installed, the permittee shall manage the dewatered sludge in accordance with applicable federal, state, and local regulations.

During the initial start-up period, lasting not more than two (2) years, up to 20,000 gallons per day of wastewater may be vaulted and hauled off-site to an approved facility as per Section 4.1, Table I.

The depth to groundwater is approximately 430 feet below ground surface (bgs) and the direction of groundwater flow is to the southwest.

The WRP was designed and shall be constructed according to plans approved by the ADEQ Wastewater, Recharge and Reuse Unit on October 4, 2005. Design plans pertaining to the addition of noise, odor, and aesthetic controls and the applicable change in the setback requirement, were approved by the ADEQ Technical Support Unit on February 5, 2007. Noise, odor, and aesthetic controls are for future installation (when required). According to Compliance Schedule the 100-foot setback requirement shall apply prior to the sale of residential housing within 500 feet of the treatment and disposal components of the sewage treatment facility.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
SaddleBrooke Ranch Water Reclamation Plant	32° 34' 21" N	110° 56' 00" W
Discharge to Big Wash (AZPDES outfall)	32° 34' 18" N	110° 56' 03" W

This significant permit amendment was initiated by the permittee, Mountain Pass Utility Company, for the purpose of increasing the vault-and-haul provision of the SaddleBrooke Ranch WRP start-up operations from 10,000 gpd to 20,000 gpd, and extending the start-up period for an additional two (2) years.

Annual Registration Fee [A.R.S. § 49-242]

The Annual Registration Fee for this permit is established by A.R.S. § 49-242 and is payable to the Arizona Department of Environmental Quality (ADEQ) each year. The design flow is 0.249 million gallons per day (mgd).

Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee shall maintain financial capability throughout the life of the facility. The estimated dollar amount demonstrated for financial capability was \$200,000 for operating costs and \$50,000 for closing costs. The financial capability was demonstrated through Robson Communities, Inc. (RCI), in support of Mountain Pass Utility Company as per A.A.C. R18-9-203(C)(2).

2.2 Best Available Demonstrated Control Technology [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

The WRP shall be designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities with a design flow of less than 250,000 gpd as specified in A.A.C. R18-9-B204.

The permittee shall meet the requirements for pretreatment by conducting monitoring as per A.A.C. R18-9-B204(B)(6)(b).

The treatment facility shall not exceed a maximum seepage rate of 550 gallons per day per acre for all containment structures within the treatment works.

2.2.1 Engineering Design

The WRP design report was prepared by L.J. Farrington Engineers, Inc., dated November 10, 2004. The design report in support of the significant permit amendment to add noise, odor, and aesthetic controls and adjust the setbacks was prepared by Michael S. Goldman, P.E., and Water 3 Engineering, Inc., dated January 9, 2007.

2.2.2 Site-specific Characteristics

Not applicable.

2.2.3 Pre-operational Requirements

The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department as per the Compliance Schedule in Section 3.0. The Certificate shall be submitted to the Groundwater Section and a copy shall be sent to the Water Quality Compliance Section.

2.2.4 Operational Requirements

1. Permittee shall maintain a copy of the up-to-date Operations and Maintenance Manual at the WWTP site at all times, and the manual shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.2, Table III - FACILITY INSPECTION (OPERATIONAL MONITORING).
3. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used shall be documented on the Self-Monitoring Report Form submitted quarterly to the ADEQ Water Quality Compliance Section.

2.2.5 Reclaimed Water Classification

[A.A.C. R18-9-703(C)(2)(a), A.A.C. R18-11-303 through 307]

The treatment facility is rated as producing reclaimed water meeting the Class B+ Reclaimed Water Quality Standards (A.A.C. R18-11, Article 3) which may be used for any allowable Class A, B, or C use under a valid reclaimed water permit (A.A.C. R18-9, Article 7).

2.2.6 Certified Areawide Water Quality Management Plan Conformance

[A.A.C. R18-9-A201(B)(6)(a)]

Facility operations must conform to the approved Certified Areawide Water Quality Management Plan according to the 208 consistency determination in place at the time of permit issuance.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

1. The permittee is authorized to operate the WRP with a maximum average monthly flow of 0.249 mgd.
2. The permittee shall notify all users that the materials authorized to be disposed of through the WRP are typical household sewage and pre-treated commercial wastewater and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.
3. The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of applicable BADCT pollutant control technologies including liner failure¹, uncontrollable leakage, overtopping (e.g., exceeding the maximum storage capacity, defined as a fluid level exceeding the crest elevation of a permitted impoundment), of basins, lagoons, impoundments or sludge drying beds, berm breaches, accidental spills, or other unauthorized discharges.
4. Specific discharge limitations are listed in Section 4.2, Tables IA and IB.

2.4 Points of Compliance (POCs) [A.R.S. § 49-244]

The POCs are established at the following designated locations:

POC#	POC Locations	Latitude	Longitude
1	Approximately 200 feet west-southwest of the effluent discharge point into Big Wash, and 200 feet from the effluent manhole at the WRP property line.	32° 34' 22" N	110° 56' 13" W

Groundwater monitoring is not required at the point of compliance well, until the flow rate exceeds 247,500 gpd, as a monthly average, as per Section 3.0, Compliance Schedule.

The Director may amend this permit to require installation of wells and initiation of groundwater monitoring at the POC or to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

¹Liner failure in a single-lined impoundment is any condition that would result in leakage exceeding 550 gallons per day per acre.

2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]

All monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and Chain-of-Custody procedures shall be followed, in accordance with currently accepted standards of professional practice. The permittee shall develop a site-specific Quality Management Plan (QMP) which describes the sample collection and analysis procedures to ensure that the result of work performed under this permit will satisfy the data quality objectives of the permit. The permittee shall be responsible for the quality and accuracy of all data required by this permit. If a third party collects or analyzes samples on behalf of the permittee, the permittee shall obtain a copy of the third party site-specific QMP. The permittee shall consult with the most recent version of the ADEQ QMP and Title 40, PART 136 of the Environmental Protection Agency's Code of Federal Regulations (CFR) for guidance in this regard. Copies of laboratory analyses and Chain-of-Custody forms shall be maintained at the permitted facility. Upon Request, these documents shall be made immediately available for review by ADEQ personnel.

2.5.1 Pre-operational Monitoring

During the initial start-up period, the permittee shall monitor the flow rate according to Section 4.1, Table I. Flow rate shall be measured at influent pump station vault of the treatment facility. Monitoring under Section 4.1, Table I shall continue until permittee ceases to vault and haul and initiates routine discharge monitoring under Section 4.2, Table IA or when flow reaches 20,000 gpd, or within two (2) years after the date of permit signature, whichever comes first.

2.5.2 Routine Discharge Monitoring

Upon cessation of the initial start-up period, the permittee shall monitor the effluent on a routine basis according to Section 4.2, Table IA. Representative samples of the effluent shall be collected at the point of discharge from the ultraviolet disinfection unit.

2.5.3 Reclaimed Water Monitoring

On a routine basis, the permittee shall monitor the reclaimed water parameters listed under Section 4.2, Table IB in addition to the routine discharge monitoring parameters listed in Section 4.2, Table IA. Representative samples of the reclaimed water shall be collected at the point of discharge from the ultraviolet disinfection unit.

2.5.4 Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.2, Table III.

1. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented on the SMRF submitted quarterly to the ADEQ Water Quality Compliance Section, Data Unit. If none of the conditions occur, the report shall say "no event" for a particular reporting period. If the facility is not in operation, the permittee shall indicate this on the SMRF.
2. The permittee shall submit data required in Section 4.2, Table III regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

2.5.5 Groundwater Monitoring and Sampling Protocols

Groundwater monitoring is not required at time of issuance. Groundwater monitoring is required when the facility exceeds the flow limit of 247,500 gpd as a monthly average of daily flows. Within 30 days after such exceedance, the permittee shall submit to the ADEQ Groundwater Section an Other Amendment application to include a design for the POC well at the location designated in Section 2.4.

2.5.6 Surface Water Monitoring and Sampling Protocols

Not applicable.

2.5.7 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state-approved methods. If no state-approved method exists, then any appropriate EPA-approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona state-certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Avenue
Phoenix, Arizona 85007
Phone: (602) 364-0720

2.5.8. Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the ADEQ Groundwater Section for approval prior to installation and the permit shall be amended to include any new monitoring points.

2.6 Contingency Plan Requirements

[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 General Contingency Plan Requirements

At least one copy of this permit and the approved contingency and emergency response plan(s) submitted in the application shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

Any AL exceedance, violation of a DL, AQL, or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL, or any other permit condition.

2.6.2 Exceeding of Alert Levels/Performance Levels

2.6.2.1 Exceeding of Performance Levels Set for Operational Conditions

1. If an operational performance level (PL) set in Section 4.2, Table III has been exceeded the permittee shall:
 - a. Notify the ADEQ Water Quality Compliance Section within five days of becoming aware of the exceedance.
 - b. Submit a written report within 30 days after becoming aware of the exceedance. The report shall document all of the following:
 - (1) A description of the exceedance and its cause;
 - (2) the period of the exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;
 - (3) any action taken or planned to mitigate the effects of the exceedance or spill, or to eliminate or prevent recurrence of the exceedance or spill;
 - (4) any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS; and
 - (5) any malfunction or failure of pollution control devices or other equipment or process.
2. The facility is no longer on alert status once the operational indicator no longer indicates that a PL is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2.6.2.2 Exceeding of Alert Levels (ALs) Set for Discharge Monitoring

1. If an AL set in Section 4.2, Table IA has been exceeded, the permittee shall immediately investigate to determine the cause. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the exceedance;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences; and
 - c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the exceedance, the permittee shall sample individual waste streams composing the wastewater for the parameters in question, if necessary to identify the cause of the exceedance.
2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.
3. Within 30 days of an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, Data Unit, along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.2.2.1 Exceeding Permit Flow Limit

1. If the AL for average monthly flow in Section 4.1, Table I or Section 4.2, Table IA has been exceeded, the permittee shall submit an application for an APP amendment

to expand the WRF or submit a report detailing the reasons that expansion is not necessary.

2. Acceptance of the report instead of an application for expansion requires ADEQ approval.

2.6.3 Discharge Limit Violation

1. If a DL set in Section 4.1, Table I or Section 4.2, Tables IA or IB has been violated, the permittee shall immediately investigate to determine the cause of the violation. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the violation;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences; and
 - c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the violation, the permittee shall sample individual waste streams composing the wastewater for the parameters in violation, if necessary to identify the cause of the violation.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ-approved contingency plan, or separately approved according to Section 2.6.6.

2. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.4 Aquifer Quality Limit Violation

Not applicable - Groundwater monitoring is not required under this permit.

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. § 49-201(12) and pursuant to A.R.S. § 49-241

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(19)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the ADEQ Water Quality Compliance Section within 24 hours of discovering the discharge of hazardous material which (a) has the potential to cause an AWQS or AQL exceedance, or (b) could pose an endangerment to public health or the environment.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the ADEQ Water Quality Compliance Section and the within 24 hours of discovering the discharge of non-hazardous material which (a) has the potential to cause an AQL exceedance, or (b) could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to the ADEQ Water Quality Compliance Section and within 30 days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in the notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

Specific contingency measures identified in Section 2.6 have already been approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Groundwater Section prior to implementing a corrective action to accomplish any of the following goals in response to exceedance of an AL or violation of an AQL, DL, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer;
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the ADEQ Water Quality Compliance Section, a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements [A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self-monitoring Report Form

1. The permittee shall complete the SMRFs provided by ADEQ, and submit them to the Water Quality Compliance Section, Data Unit.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a reporting period, the permittee shall enter "not required" on the SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.
3. The tables contained in Section 4.0 list the parameters to be monitored and the frequency for reporting results for compliance monitoring. Analytical methods shall be recorded on the SMRFs.
4. In addition to the SMRF, the information contained in A.A.C. R18-9-A206(B)(1) shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms, or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

1. Name of inspector;
2. Date and shift inspection was conducted;
3. Condition of applicable facility components;
4. Any damage or malfunction, and the date and time any repairs were performed;
5. Documentation of sampling date and time; and
6. Any other information required by this permit to be entered in the log book.

Monitoring records for each measurement shall comply with A.A.C. R18-9-A206(B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Compliance Section in writing (by mail or by fax - see Section 2.7.5) within five days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation, or of an AL exceedance.
2. The permittee shall submit a written report to the Water Quality Compliance Section within 30 days of becoming aware of the violation of any permit condition or discharge limitation. The report shall document all of the following:
 - a. Identification and description of the permit condition for which there has been a violation and a description of the cause;
 - b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
 - c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;
 - d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS;
 - e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
 - f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

The permittee shall complete the SMRF provided by the Department to reflect facility inspection requirements designated in Section 4.2, Table III and submit to the ADEQ Water Quality Compliance Section, Data Unit quarterly along with other reports required by this permit. Facility inspection reports shall be submitted no less frequently than quarterly, regardless of operational status.

If the treatment facility is classified for reclaimed water under this permit, the permittee shall submit the reclaimed water monitoring results as required in Section 4.2, Table IB and flow volumes to any of the following in accordance with A.A.C. R18-9-703(C)(2)(c):

1. Any reclaimed water agent who has contracted for delivery of reclaimed water from the permittee; and
2. Any end user who has not waived interest in receiving this information.

2.7.5 Reporting Location

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality
 Water Quality Compliance Section, Data Unit
 Mail Code 5415B-1
 1110 West Washington Street
 Phoenix, Arizona 85007
 Phone (602) 771-4681

All documents required by this permit to be submitted to the Water Quality Compliance Section shall be directed to the following address:

Arizona Department of Environmental Quality
 Water Quality Compliance Section
 Mail Code 5415B-1
 1110 West Washington Street
 Phoenix, Arizona 85007
 Phone (602) 771-4497
 Fax (602) 771-4505

All documents required by this permit to be submitted to the Groundwater Section shall be directed to:

Arizona Department of Environmental Quality
 Groundwater Section
 Mail Code 5415B-3
 1110 West Washington Street
 Phoenix, Arizona 85007
 Phone (602) 771-4428

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates²:

Monitoring conducted during quarter:	Quarterly Report due by:
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

The following table lists the semi-annual and annual report due dates:

Monitoring conducted:	Report due by:
Semi-annual: January-June	July 30
Semi-annual: July-December	January 30
Annual: January-December	January 30

²A post-mark date no later than the due date is considered meeting the due date requirements under this Section.

2.7.7 Changes to Facility Information in Section 1.0

The Groundwater Section, and the Water Quality Compliance Section, shall be notified within ten days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person, or Emergency Telephone Number.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the Water Quality Compliance Section before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

1. If applicable, direct the wastewater flows from the facility to another state-approved wastewater treatment facility;
2. Correct the problem that caused the temporary cessation of the facility; and
3. Notify the ADEQ Water Quality Compliance Section and the with a monthly facility status report describing the activities conducted on the treatment facility to correct the problem.

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Water Quality Compliance Section of the operational status of the facility every three years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]

For a facility addressed under this permit, the permittee shall give written notice of closure to the Water Quality Compliance Section of the intent to cease operation without resuming activity for which the facility was designed or operated.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Groundwater Section, a closure plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3).

If the closure plan achieves clean-closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean-closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Groundwater Section indicating that the approved closure plan has been implemented fully and providing supporting documentation to demonstrate that clean-closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean-closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of post-closure stated in this permit:

1. Clean-closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with AWQS at the applicable POC;

3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remediation or mitigation measures are necessary to achieve compliance with Title 49, Ch. 2; and
5. Further action is necessary to meet property use restrictions.

2.10 Post-closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9 A209(C)]

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Groundwater Section.

In the event clean-closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Section a post-closure plan that addresses post-closure maintenance and monitoring actions at the facility. The post-closure plan shall meet all requirements of A.R.S. §§ 49-201(30) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the post-closure plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the post-closure plan.

2.10.1 Post-closure Plan

A specific post-closure plan may be required upon the review of the closure plan.

2.10.2 Post-closure Completion

Not required at the time of permit issuance.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Groundwater Section. A copy of the cover letter must also be submitted to the ADEQ Water Quality Compliance Section.

Description	Due by:
The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion (ECC) in a format approved by the Department that confirms that the treatment process components excluding equalization basin, effluent pump-station and centrifuge have been constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharging under this permit and within 90 days of completion of construction.
Notify of cessation of vault and haul.	Within 15 days after the date of flow reaches 20,000 gpd, or two (2) years from the date of permit signature, whichever comes first.
The permittee shall submit a signed, dated, and sealed Engineer's statement that confirms that the following components have been constructed according to the Department-approved design: Equalization Basin Effluent Pump Station (for distribution of reclaimed water) Centrifuge (for on-site sludge de-watering)	Prior to operation of each of these components.
The permittee shall submit a signed, dated, and sealed Engineer's statement that confirms that facility noise, odor, and aesthetic controls have been constructed according to the Department-approved design.	Prior to the sale of residential lots within 500 feet of the treatment and disposal components of the sewage treatment facility.
Groundwater monitoring shall be required when the facility exceeds the flow limit of 247,500 gpd as a monthly average of daily flows. An Other Amendment application shall be submitted including a design for the POC well at the location designated in Section 2.4, a well drilling permit from ADWR, and a schedule for drilling the well and establishing the ambient water quality in the aquifer.	Within 30 days after exceeding 247,500 gpd as a monthly average of daily flows.

4.0 TABLES OF MONITORING REQUIREMENTS**4.1 PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)****TABLE I
INITIAL START-UP PLAN³**

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
1	Influent pump station vault		32° 34' 22" N		110° 56' 00" W
Parameter	AL⁴	DL⁵	Units	Sampling Frequency	Reporting Frequency
Total Flow: Daily ⁶	Not Established ⁷	0.02	mgd ⁸	Everyday	Quarterly

³ Monitoring under this table shall continue until the flow reaches 20,000 gpd or two (2) years from the date of permit signature, whichever comes first.

⁴ AL = Alert Level

⁵ DL = Discharge Limit

⁶ Flow shall be measured using a continuous recording flow meter that totals the flows daily.

⁷ Not Established means monitoring is required but no limits are specified.

⁸ mgd = million gallons per day

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA
ROUTINE DISCHARGE MONITORING⁹

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	Point of discharge from the UV disinfection unit			32° 16' 20" N	110° 56' 01" W
Parameter	AL	DL ¹⁰	Units	Sampling Frequency	Reporting Frequency
Total Flow ¹¹ : Daily ¹²	Not Established ¹³	Not Established	mgd ¹⁴	Everyday	Quarterly
Total Flow: Monthly Average ¹⁵	0.2475	0.249	mgd	Monthly Calculation	Quarterly
Flow: AZPDES	Not Established	Not Established	mgd	Everyday	Quarterly
Flow: AZPDES Average Monthly	0.2475	0.249	mgd	Monthly Calculation	Quarterly
Total Flow - Reuse Daily	Not Established	Not Established	mgd	Everyday	Quarterly
Total Flow - Reuse Monthly Average	0.2475	0.249	mgd	Monthly Calculation	Quarterly
Fecal Coliform: Single sample maximum	Not established	800	CFU or MPN ¹⁶	Daily ¹⁷	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week ¹⁸	Not established	200 ¹⁹	CFU or MPN	Daily	Quarterly
Total Nitrogen ²⁰ : Five-sample rolling geometric mean	8.0	10.0	mg/l	Monthly ²¹	Quarterly

⁹ The permittee shall initiate monitoring under this table upon discontinuing monitoring in Section 4.1, Table I.

¹⁰ DL = Discharge Limit

¹¹ Total flow for all methods of disposal as reuse, and AZPDES.

¹² Flow shall be measured using a continuous recording flow meter which totals the flow daily.

¹³ Not Established means monitoring is required but no limits are specified.

¹⁴ mgd = million gallons per day

¹⁵ Monthly average of daily flow values.

¹⁶ CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1.0 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

¹⁷ For fecal coliform, "daily" sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each week are obtained and analyzed.

¹⁸ Week means a seven-day period starting on Sunday and ending on the following Saturday.

¹⁹ If at least four (4) of seven (7) samples in a week are equal to or less than 200 CFU or MPN per 100ml, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of seven (7) samples in a week are greater than 200 CFU or MPN per 100 ml, report "no" in the appropriate space on the SMRF (indicating that the standard has not been met).

²⁰ Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

²¹ A five-month geometric mean of the results of the five (5) most recent samples

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ²²	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

²²Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IB
RECLAIMED WATER MONITORING TABLE - CLASS B+²³

Sampling Point Number	Sampling Point Identification		Latitude	Longitude
2	Point of discharge from the UV disinfection unit		32° 16' 20" N	110° 56' 01" W
Parameter	DL	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ²⁴ : Five-sample rolling geometric	10.0	mg/l	Monthly	Quarterly
Fecal Coliform: Single-sample maximum	800	CFU or MPN ²⁵	Daily ²⁶	Quarterly
Fecal Coliform: Four (4) of last seven (7) samples	200 ²⁷	CFU or MPN	Daily	Quarterly

²³ Reclaimed water monitoring under Table IB shall be performed anytime effluent is discharged to the reuse site according to an approved Reclaimed Water Permit and is *in addition to* routine discharge monitoring.

²⁴ Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

²⁵ CFU = Colony Forming Units per 100 ml; MPN = Most Probable Number per 100 ml.

²⁶ For fecal coliform, "daily" sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four (4) samples in each 7-day period are obtained and analyzed.

²⁷ If at least four (4) of the last seven (7) samples are equal to or less than 200 CFU or MPN per 100 ml, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of the last seven (7) samples are greater than 200 CFU or MPN per 100 ml, report "no" in the appropriate space on the SMRF (indicating that the standard has **not** been met).

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II
GROUNDWATER MONITORING

Not applicable.

TABLE III
FACILITY INSPECTION (Operational Monitoring)

Pollution Control Structures/Parameter	Performance Levels	Inspection Frequency	Reporting Frequency
Pump Integrity	Good working condition	Weekly	Quarterly
Treatment Plant Components	Good working condition	Weekly	Quarterly

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. APP Application, dated: May 1, 2003 (original APP, Signed 2/7/2005)
November 6, 2006(sig. amend. signed 12/6/2007)
December 15, 2010 (Sig. Amend.)
2. Contingency Plan, dated: May 1, 2003 (original APP)
3. Final Hydrologist Report, dated: October 26, 2005 (original APP)
4. Final Engineering Report, dated: October 6, 2005 (original APP)
January 9, 2007 (significant amendment)
5. Public Notice, dated: October 6, 2005 (original APP)
June 25, 2007 (significant amendment)
August 16, 2011(significant amendment)
6. Public Hearing, dated: Not applicable.
7. Responsiveness Summary, dated: Not applicable.

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6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons-per-day (gpd) as established by A.R.S. § 49-242(D).

6.2 Duty to Comply [A.R.S. §§ 49-221 through 263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending 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.

6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an AWQS at the applicable POC for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an AWQS for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability

[A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. the filing of bankruptcy by the permittee; or
2. the entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

6.8 Inspection and Entry [A.R.S. §§ 41-1009, 49-203(B), and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

**6.10 Permit Action: Amendment, Transfer, Suspension, and Revocation
[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]**

This permit may be amended, transferred, suspended, or revoked for cause, under the rules of the Department. The permittee shall notify the Groundwater Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Other Information [A.R.S. § 49-243(K)(8)]

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, the permittee shall promptly submit the correct facts or information.

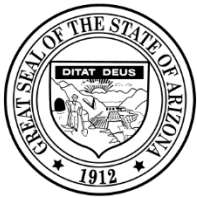
7.2 Severability [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

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 the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).

DRAFT



Katie Hobbs
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Karen Peters
Director

July 19, 2023

LTF No. 97213

Brian Smith, Vice President
Mountain Pass Utility Company
c/o Mike Andrews, P.E. B&R Engineering
9532 E. Riggs Road
Sun Lakes, AZ 85248
(Sent via DocuSign)

Re: Mountain Pass Utility Company, SaddleBrooke Ranch Water Reclamation Plant
Minor Modification of AZPDES Permit No. AZ0024775

Dear Brian Smith:

As per A.A.C. R18-9-B906(B), ADEQ has one made minor modification to the AZPDES permit referenced above to correct one typographical error that is outlined below. A corrected permit is provided with this DocuSign email. Please note the minor modification effective date at the bottom of Page 1 and a notice of minor modification replacement page insertion at the top of Page 4. Please use this permit with minor modification as your final copy of the AZPDES permit.

- 1) Page 4. Table 1 Mercury monitoring sample type has been changed from 8-hour composite to Discrete.

If you have any questions please contact me at by phone at 602-771-4144 or by email at hammond.corin@azdeq.gov.

Sincerely,

Corin M. Hammond
Permits Unit
Surface Water Section

Enclosures (2): Modified AZPDES Permit No. AZ0024775
Minor Modification Citation A.A.C. R18-9-B906(B)

cc: Mike Andrews, P.E., B&R Engineering
Chris Montague-Breakwell, Manager, ADEQ Surface Water Permits Unit
Mike Tenczar, ADEQ Surface Water Compliance Data Unit
Gary Sheth, EPA Region 9 Project Officer



ADEQ Inventory No.	105334	Permit No.	AZ0024775
LTF No.	97213	Place ID No.	13097

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 U.S.C. §1251 *et seq.*, as amended), and Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 9 and 10, and amendments thereto the,

Mountain Pass Utility Company
SaddleBrooke Ranch Water Reclamation Plant
9532 E. Riggs Road
Sun Lakes, AZ 85248

is authorized to discharge treated domestic wastewater from the wastewater treatment plant located at the southern terminus of South Egret Trail in the SaddleBrooke Ranch community serving the SaddleBrooke Ranch community in Pinal County, Arizona to Upper Holding Ravine, a tributary to Big Wash, a protected surface water in Arizona that is a Water of the U.S. (WOTUS), in the Santa Cruz Basin at:

Outfall No.	Latitude	Longitude	Legal
001	32° 34' 19.992" N	110° 56' 3.011" W	Township 10 S, Range 14 E, Section 7

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

Annual Registration Fee [A.R.S. 49-255.01 and A.A.C. R18-14-104]

The annual registration fee for this permit is payable to ADEQ each year. The permitted flow for fee calculation is 249,000 gallons per day (gpd). If the facility is not yet constructed or is incapable of discharge at this time, the permittee may be eligible for reduced fees under rule. Send all correspondence requesting reduced fees to the Water Quality Division of ADEQ. Please reference the permit number, LTF number and why reduced fees are requested under rule.

This permit shall become effective on June 06, 2023.

This permit and the authorization to discharge shall expire on June 05, 2028.

Signed May 11, 2023

DocuSigned by:

7A7C293F922A4A2...

Trevor Baggiore, Director
Water Quality Division
Arizona Department of Environmental Quality

Minor Modification Effective Date [July 19, 2023]



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PART I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Effluent Limitations and Monitoring Requirements

- 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 0.249 million gallons per day (MGD).

Table 1. Effluent Limitations and Monitoring Requirements

Parameter	Maximum Allowable Discharge Limitations						Monitoring Requirement (2)(3)	
	Mass Limits (1)			Concentration Limits			Monitoring Frequency	Sample Type
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum		
Discharge Flow (MGD)	REPORT (4)	---	REPORT	---	---	---	Continuous	Metered
Biochemical Oxygen Demand (BOD) (5-day)	28 kg/day	42 kg/day	---	30 mg/L	45 mg/L	---	1x/Month	8-hour Composite (5)
BOD (6)	---	---	---	85% REMOVAL MINIMUM	---	---	1x/Month	8-hour Composite
Total Suspended Solids (TSS)	28 kg/day	42 kg/day	---	30 mg/L	45 mg/L	---	1x/Month	8-hour Composite
TSS (6)	---	---	---	85% REMOVAL MINIMUM	---	---	1x/Month	8-hour Composite
<i>E. coli</i>	---	---	---	126 cfu/100 mL (7)	---	575 cfu/100 mL (7)	4x/Month (7)	Discrete
Chlorine, Total Residual (TRC) (8) (9)	8 g/day	---	17 g/day	9 µg/L	---	18 µg/L	1x/Week	Discrete
Copper (10)	7 g/day	---	14 g/day	7.4 µg/L	---	15 µg/L	1x/6 Months	8-hour Composite
Mercury	0.01 g/day	---	0.02 g/day	0.01 µg/L	---	0.02 µg/L	1x/6 Months	Discrete
Zinc (10)	59 g/day	---	119 g/day	63 µg/L	---	126 µg/L	1x/6 Months	8-hour Composite
Hardness (CaCO ₃) effluent (10)	---	---	---	REPORT [mg/L]	---	REPORT [mg/L]	1x/6 Months	8-hour Composite
pH (9)	Not less than 6.5 standard units (S.U.) nor greater than 9.0 S.U.						1x/week	Discrete

Footnotes

- Mass values are to be calculated and reported using the following formulas: 1) Mass in kilograms per day = 3.785 x flow in MGD x concentration in mg/L, and 2) mass in grams per day = 3.785 x flow in MGD x concentration in µg/L. See the definition for "Monthly Average Mass Limit", "Weekly Average Mass Limit", or "Daily Maximum Mass Limit" in Appendix A. See definitions for "Monthly Average Mass Loading", "Weekly Average Mass Loading", and "Daily Maximum Mass Loading" in Appendix A for guidance on DMR reporting of mass-based DMR reporting. All metals effluent Limitations are for total recoverable metals.
- Testing must coincide with the Whole Effluent Toxicity Test (WET) samples, if any, taken during that monitoring period as per Part I.C, Table 3 of the permit. See Part IV of the permit.
- If discharge is infrequent, see Part I.D for minimum effluent characterization monitoring requirements
- Monitoring and reporting required. No limit set at this time. In addition to the average and maximum flows reported on the Discharge Monitoring forms, daily discharge shall be recorded on the Discharge Flow Record provided in Appendix B. See Part II.B. for reporting requirements.
- For the purposes of this permit, a "8-hour composite" sample has been defined as a flow-proportioned mixture of two or more discrete samples (aliquots) obtained at equal time intervals over an 8-hour period. If only two samples are collected, they should be taken approximately 8 hours apart. The volume of each aliquot shall be directly proportional to the discharge flow rate at the time of sampling.



- 6 Both the influent and the effluent shall be monitored.
- 7 cfu = colony forming units; "most probable number" (mpn) is considered equivalent for reporting purposes. The monthly average for *E. coli* is calculated as a geometric mean. A minimum of 4 samples (one sample per week of each month) are required in order to report a geometric mean. See the definition for "Monthly or Weekly Average Concentration Limit" in Appendix A.
- 8 Sample when chlorine or bromine compounds are used for disinfection. See Part II.A.7 for specific monitoring requirements for chlorine.
- 9 pH and TRC must be measured at the time of sampling and do not require use of a certified laboratory. Measurements must be obtained in accordance with the applicable method and must meet all method quality assurance/quality control requirements to be considered valid data.
- 10 Limits listed are based on the average effluent hardness of 106 mg/L as CaCO₃. The effluent must be tested for hardness at the same time that the metal sample is taken. Please see the hardness definition in Appendix A, Part B.

B. Trace Substance Monitoring

1. The permittee shall monitor discharges from Outfall 001 as specified in Table 2. Monitoring results above the Assessment Levels (ALs) listed below do not constitute a permit violation, but may trigger evaluation of Reasonable Potential (RP) by ADEQ. The permittee shall use an approved analytical method with a Limit of Quantitation (LOQ) lower than the AL values as described in Part II.A.5.

Table 2. Assessment Level Monitoring

Parameter	Assessment Levels (1) (2)		Monitoring Requirements (3) (4)	
	Monthly Average	Daily Maximum	Monitoring Frequency	Sample Type
Ammonia (5)	REPORT [mg/L] (5)	REPORT [mg/L] (5)	1x/Month	Discrete
Ammonia Impact Ratio (AIR) (6)	1	2	1x/Month	Discrete
Cyanide (as free cyanide)	7.9 µg/L	16 µg/L	1x/6 Months	Discrete
Hydrogen sulfide (7)	2 µg/L	3 µg/L	1x/6 Months	Discrete
Sulfides (7)	REPORT [µg/L] (7)	REPORT [µg/L] (7)	1x/6 Months (7)	Discrete
Oil & Grease	10 mg/L	15 mg/L	1x/Year	Discrete
pH - effluent (5) (8)	REPORT [S.U.] (5)	REPORT [S.U.] (5)	1x/Month	Discrete
Temperature - effluent (5) (8)	REPORT [°C] (5)	REPORT [°C] (5)	1x/Month	Discrete

Footnotes

- 1 Concentration values are calculated based on Arizona Water Quality Standards. Monitoring and reporting required.
- 2 All metals effluent Assessment Levels are for total recoverable metals, except for chromium VI, for which the assessment levels listed are dissolved.
- 3 Testing must coincide with the Whole Effluent Toxicity Test (WET) samples, if any, taken during that monitoring period as per Part I.C, Table 3 of the permit. See Part IV of the permit.
- 4 If discharge is infrequent see Part I.D for minimum effluent characterization monitoring requirements.
- 5 The ammonia assessment level is dependent on pH and temperature. The effluent must be tested for pH and temperature at the same time that the ammonia samples are taken. In addition to reporting the ammonia values on the DMRs, the Ammonia Data Log shall also be completed including values of the effluent. See Part II.B of the permit.
- 6 The Ammonia Impact Ratio (AIR) is calculated as the ratio of the reported effluent ammonia concentration and the calculated ammonia standard as determined by comparing concurrent measurement of the effluent pH and temperature with the values in the ammonia criteria table in Appendix C. In addition to reporting the AIRs on the DMRs, the ammonia data log in Appendix C shall also be completed. See Part II.B of the permit.
- 7 With a detection limit no higher than 100 µg/L, any detection of sulfides shall trigger monitoring for hydrogen sulfide for the remainder of the permit term. Monitoring for hydrogen sulfide is only required if sulfide is detected.
- 8 pH and temperature must be measured at the time of sampling and do not require use of a certified laboratory. Measurements must be obtained in accordance with the applicable method and must meet all method quality assurance/quality control requirements to be considered valid data.



C. Whole Effluent Toxicity Monitoring

1. The permittee shall monitor discharges from Outfall 001 for Whole Effluent Toxicity (WET) as specified in Table 3 which follows. If toxicity is detected above an Action Level specified as follows, the permittee must perform follow-up testing and, as applicable, follow the TIE/TRE processes in Part IV.D of the permit.

Table 3. WET Testing

Effluent Characteristic (1)	Action Levels		Monitoring Requirements	
	Daily Maximum (2) (3)	Monthly Median (3)	Monitoring Frequency (5)	Sample Type
Acute Toxicity (4) <i>Pimephales promelas</i> (Fathead minnow)	N/A	Fail	1x/Permit term	8-hr Composite (7)
Acute Toxicity (4) <i>Ceriodaphnia dubia</i> (Water flea)	N/A	Fail	1x/Permit term	8-hr Composite
Chronic Toxicity <i>Pseudokirchneriella subcapitata</i> (Green algae) (6)	1.6 TUC	1.0 TUC	1x/Permit term	8-hr Composite
Chronic Toxicity <i>Pimephales promelas</i> (Fathead minnow)	1.6 TUC	1.0 TUC	1x/Permit term	8-hr Composite
Chronic Toxicity <i>Ceriodaphnia dubia</i> (Water flea)	1.6 TUC	1.0 TUC	1x/Permit term	8-hr Composite

Footnotes

- 1 See Part IV for additional 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 is considered to be the highest allowable test result.
- 3 If chronic toxicity is detected above the Action Levels in this table or an acute test fails, the permittee must perform follow-up testing. See Part IV for details.
- 4 The requirement for an acute test applies when duration of discharge doesn't allow for chronic tests to be conducted. See Part IV.
- 5 If discharge is infrequent see Part I.D for minimum effluent characterization monitoring requirements.
- 6 Formerly known as *Selenastrum capricornutum* or *Raphidocelis subcapitata*.
- 7 For the purposes of this permit, a "8-hour composite" sample has been defined as a flow-proportioned mixture of two or more discrete samples (aliquots) obtained at equal time intervals over an 8-hour period. If only two samples are collected, they should be taken approximately 8 hours apart. The volume of each aliquot shall be directly proportional to the discharge flow rate at the time of sampling.



D. Effluent Characterization Testing

1. The permittee shall monitor to characterize the facility's effluent for the parameters listed in Tables 4.a – b whether discharging or not. When the facility discharges, monitoring is to be conducted at the frequency indicated in Tables 1 through 3. No limits or ALs are established, but the LOQ must be low enough to allow comparison of the results to the applicable water quality standards (WQS). If a LOQ below the WQS cannot be achieved, then the permittee shall use the method expected to achieve the lowest LOQ, as defined in Appendix A of this permit. Samples are to be representative of any seasonal variation in the discharge:

Table 4.a. Effluent Characterization Testing—General Chemistry and Microbiology

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (1)	Sample Type
Ammonia (as N) (2)	mg/L	1x/Quarter	Discrete
Biochemical Oxygen Demand (BOD-5)	mg/L	1x/Quarter	8-hour Composite (6)
Chlorine, Total Residual (TRC) (4)(5)	µg/L	1x/Quarter	Discrete
Dissolved Oxygen (5)	mg/L	1x/Year	Discrete
<i>E. coli</i>	cfu/100 mL (3)	1x/Quarter	Discrete
Nitrate/Nitrite (as N)	mg/L	1x/Quarter	8-hour Composite
Nitrogen, Total Kjeldahl (TKN)	mg/L	1x/Quarter	8-hour Composite
Oil and Grease	mg/L	1x/Year	Discrete
pH (5)	S.U.	1x/Quarter	Discrete
Phosphorus	mg/L	1x/Quarter	8-hour Composite
Temperature (5)	°Celsius	1x/Quarter	Discrete
Total Dissolved Solids (TDS)	mg/L	1x/Quarter	8-hour Composite
Total Suspended Solids (TSS)	mg/L	1x/Quarter	8-hour Composite

Footnotes

- 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 4.a. requirements.
- 2 When sampling for ammonia, temperature and pH must be determined concurrently and the results recorded on the **Ammonia Data Log** provided in Appendix C. See Part II.B for reporting requirements.
- 3 cfu = colony forming units; "most probable number" (mpn) is considered equivalent for reporting purposes
- 4 Sample when chlorine or bromine compounds are used for disinfection. See Part II.A.7 for specific monitoring requirements for chlorine
- 5 Temperature, pH, TRC and dissolved oxygen must be measured at the time of sampling and do not require use of a certified laboratory. See Part II.A.7 for methods of analyses for chlorine. Measurements must be obtained in accordance with the applicable method and must meet all method quality assurance/quality control requirements to be considered valid data.
- 6 For the purposes of this permit, a "8-hour composite" sample has been defined as a flow-proportioned mixture of two or more discrete samples (aliquots) obtained at equal time intervals over an 8-hour period. If only two samples are collected, they should be taken approximately 8 hours apart. The volume of each aliquot shall be directly proportional to the discharge flow rate at the time of sampling.



Table 4.b. Effluent Characterization Testing—Selected Metals, Trace Substances and WET

Parameter (1)	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (2)	Sample Type
Antimony	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite (6)
Arsenic	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Barium	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Beryllium	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Boron	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Cadmium	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Chromium (4)	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Chromium VI (4)	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Copper	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Iron	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Hydrogen Sulfide (5)	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Sulfides (5)	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Lead	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Manganese	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Mercury	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Nickel	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Selenium	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Silver	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Thallium	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Zinc	µg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Hardness	mg/L	1x/year in years 2025,2026,2027 of permit term	8-hour Composite
Cyanide (as free cyanide)	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Whole Effluent Toxicity - Chronic (all 3 species) (3)	TUc	1x/Permit term in year 2027	8-hour Composite

Footnotes

- 1 All metals analyses shall be for total recoverable metals, except chromium VI, which is dissolved.
- 2 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 4.b. requirements.
- 3 If chronic toxicity is detected above the Action Levels specified in Table 3 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, whether discharging or not. See Part IV for additional information on requirements for testing and reporting Whole Effluent Toxicity (WET).
- 4 If total chromium exceeds 8 µg/L, the permittee must conduct sampling for chromium VI for the remainder of the permit. Otherwise, monitoring for chromium VI is not required.
- 5 The permittee may initially monitor for sulfide instead of hydrogen sulfide. The limit of quantification shall be no higher than 100 µg/L, and any detection of sulfides shall trigger monitoring for hydrogen sulfide for the remainder of the permit term.
- 6 For the purposes of this permit, a "8-hour composite" sample has been defined as a flow-proportioned mixture of two or more discrete samples (aliquots) obtained at equal time intervals over an 8-hour period. If only two samples are collected, they should be taken approximately 8 hours apart. The volume of each aliquot shall be directly proportional to the discharge flow rate at the time of sampling.

**E. Surface Water Quality Standards**

1. The discharge shall be free from pollutants in amounts or combinations that:
 - a. Settle to form bottom deposits that inhibit or prohibit the habitation, growth or propagation of aquatic life;
 - b. Cause objectionable odor in the area in which the surface water is located;
 - c. Cause off-flavor in aquatic organisms;
 - d. Are toxic to humans, animals, plants or other organisms;
 - e. 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;
2. 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.
3. The discharge shall not cause an increase in the ambient water temperature of more than 3.0 degrees Celsius.
4. 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 and 1 mg/L from sunset to 3 hours after sunrise, unless the percent saturation of oxygen remains equal to or greater than 90%.



PART II. MONITORING AND REPORTING

A. Sample Collection and Analysis

1. Samples taken for the monitoring requirements specified in Part I shall be collected at the following locations:
 - a. Influent samples shall be taken after the last addition to the collection system and prior to the first treatment process.
 - b. Effluent samples shall be taken downstream from the last treatment process and prior to mixing with the receiving waters.
2. The permittee is responsible for the quality and accuracy of all data required under this permit.
3. The permittee shall keep a QA Manual on site that describes the sample collection and analyses processes. If the permittee collects samples or conducts sample analyses in house, the permittee shall develop a QA Manual that addresses these activities. If a third party collects and/or analyzes samples on behalf of the permittee, the permittee shall obtain a copy of the applicable QA procedures. The QA Manual shall be available for review by ADEQ upon request. The QA Manual shall be updated as necessary to reflect current conditions, and shall describe the following:
 - a. Project Management, including:
 - i. Purpose of sample collection and sample frequency;
 - ii. When and where samples will be collected;
 - iii. How samples will be collected;
 - iv. Laboratory(s) that will perform analyses;
 - v. Any field tests to be conducted (detail methods and specify equipment, including a description of any needed calibrations); and
 - vi. Pollutants or analytes being measured and for each, the permit-specific limits, Assessment Levels, or thresholds (e.g. the associated detection limits needed).
 - b. Sample collection procedures including:
 - i. Equipment to be used;
 - ii. Type and number of samples to be collected including QA/QC samples (i.e., background samples, duplicates, and equipment or field blanks);
 - iii. Types, sizes and number of sample bottles needed;
 - iv. 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);
 - v. Chain of Custody procedures.
 - c. Specify approved analytical method(s) to be used and include:
 - i. Limits of Detection (LOD) and Limits of Quantitation (LOQs);
 - ii. 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
 - iii. 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; complete DMRs and records used to report results to ADEQ; resolve data quality issues; and identify limitations on the use of the data.



4. Sample collection, preservation and handling shall be performed as described in 40 CFR 136 including the referenced Edition of *Standard Methods for the Examination of Water and Wastewater*, or by procedures referenced in A.R.S. Title 9, Chapter 14 of the Arizona Department of Health Services (ADHS) Laboratory Licensure rules. The permittee shall outline the proper procedures in the QA Manual, and samples taken for this permit must conform to these procedures whether collection and handling is performed directly by the permittee or contracted to a third-party.
5. Analytical requirements
 - a. The permittee shall use a laboratory licensed by the ADHS Office of Laboratory Licensure and Certification that has demonstrated proficiency within the last 12 months under A.A.C. R9-14-609, for each parameter to be sampled under this permit. However, this requirement does not apply to parameters which require analysis at the time of sample accordance with A.A.C. 36-495.02(A)(3). (These parameters may include flow, dissolved oxygen, pH, temperature, and total residual chlorine.)
 - b. The permittee must utilize analytical methods specified in this permit. If no test procedure is specified, the permittee shall analyze the pollutant using:
 - i. A test procedure listed in 40 CFR 136 which is also approved under A.A.C. R9-14-610 and is sufficiently sensitive in accordance with 40 CFR 136.1(c);
 - ii. An alternative test procedure approved by EPA as provided in 40 CFR 136 and which is also approved under A.A.C. R9-14-610;
 - iii. A test procedure listed in 40 CFR 136, with modifications allowed by EPA or approved as a method alteration by ADHS under A.A.C. R9-14-610C; or
 - iv. If no test procedure for a pollutant is available under (5)(b)(i) through (5)(b)(iii) above, any Method approved under A.A.C. R9-14-610(B) for wastewater may be used, except the use of field kits 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 and reporting limits may be used for analyses.
 - c. For results to be considered valid, all analytical work, including those tests conducted by the permittee at the time of sampling (see Part II.A.4.a), shall meet quality control standards specified in the approved methods.
 - d. The permittee shall use analytical methods with a Limit of Quantitation (LOQ) that is lower than the effluent limitations, Assessments Levels, Action Levels, or other water quality criteria, if any, specified in this permit. If all methods have LOQs higher than the applicable water quality criteria, the Permittee shall use the approved analytical method with the lowest LOQ.
 - e. The permittee shall use a standard calibration curve when applicable to the method, where the lowest standard point is equal to or less than the LOQ.
6. Mercury Monitoring - The permittee shall use an ADHS-certified low-level mercury analytical method such as EPA method 245.7 or 1631E to achieve a reporting limit at or below the discharge limitations or assessment levels for mercury as specified in this permit. The permittee shall also use a "clean hands/dirty hands" sampling technique such as EPA Method 1669 if necessary to achieve these reporting limits.
7. Chlorine Monitoring - Because of the short holding time for chlorine, samples may be analyzed on-site using Hach Method No. 10014. Other methods are also acceptable for chlorine if the Method has a LOQ lower than discharge limits specified in this permit.



8. Metals Analyses - In accordance with 40 CFR 122.45(c), all effluent metals concentrations, with the exception of chromium VI, shall be measured as "total recoverable metals". Discharge Limits and Assessment Levels in this permit, if any, are for total 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) to the ADEQ electronic submission portal MyDEQ. 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 a reporting period, the permittee shall specify "No discharge" on the DMR. The results of all discharge analyses conducted during the monitoring period shall be included in determinations of the monthly average and daily maximums reported on the DMRs if the analyses were by methods specified in Part II.A above, as applicable.
2. DMRs and attachments are to be submitted by the 28th day of the month following the end of a monitoring period. For example, if the monitoring period ends January 31st, the permittee shall submit the DMR by February 28th. The permittee shall electronically submit all compliance monitoring data and reports using the myDEQ electronic portal provided by ADEQ. The reports required to be electronically submitted include, but are not limited to, the following:
 - a. Discharge Monitoring Reports
 - b. Whole Effluent Toxicity (WET) reports
 - c. Original copies of laboratory results
 - d. Ammonia data logs
 - e. AZPDES discharge flow records
3. When sampling the effluent for ammonia, the pH and temperature of the effluent must be recorded at the time of sample collection. Results for all three parameters as well as the applicable ammonia standard and the calculated Ammonia Impact Ratio shall be recorded on the **Ammonia Data Log** provided in Appendix C. The effluent ammonia concentrations, effluent pH and temperature, and calculated ammonia impact ratio shall also be recorded on DMRs. The ammonia data log shall be submitted to ADEQ annually using the myDEQ electronic portal provided by ADEQ.
4. If requested to participate, the permittee shall submit the results of the annual NPDES DMR/QA Study to ADEQ and ADHS for all laboratories used in monitoring compliance with this permit by December 31st of each year. The permittee shall also conduct any proficiency testing required by the NPDES DMR-QA Study for those parameters listed in the study that the permittee analyzes in house or tests in the field at the time of sampling (these parameters may include pH and total residual chlorine). All results of the NPDES DMR-QA Study shall be submitted to the email and addresses listed below, or submit by any other alternative mode as specified by ADEQ:

Arizona Department of Environmental Quality
Email: AZPDES@azdeq.gov

Arizona Department of Health Services
Attn: Office of Laboratory Licensure and Certification
250 North 17th Avenue
Phoenix, AZ 85007

5. For the purposes of reporting, the permittee shall use the Limit of Quantitation.



6. For parameters with Daily Maximum Limits or Daily Maximum Assessment Levels in this permit, the permittee shall review the results of all samples collected during the reporting period and report as outlined in Table 5.
7. For parameters with Monthly Average Limits or Monthly Average Assessment Levels in this permit, the permittee shall review the results of all samples collected during the reporting period and report as outlined in Table 6.

Table 5. DMR Reporting Requirements for Daily Maximum Limits and Assessment Levels

For Daily Maximum Limits/Assessment Levels	The Permittee shall Report on the DMR
When the maximum value of any analytical result is greater than or equal to the LOQ	The maximum value of all analytical results
When the maximum value detected is greater than or equal to the laboratory's LOD but less than the LOQ	NODI (Q)
When the maximum value is less than the laboratory's LOD	NODI (B)

Table 6. DMR Reporting Requirements for Monthly Average Limits / Assessment Levels

For Monthly Average Limits/Assessment Levels		The Permittee shall Report on the DMR
If only one sample is collected during the reporting period (weekly, monthly, quarterly, annually, etc.) (In this case, the sample result is also the weekly or monthly average.)	When the value detected is greater than or equal to the LOQ	The analytical result
	When the value detected is greater than or equal to the laboratory's LOD, but less than the LOQ	NODI (Q)
	When the value is less than the laboratory's LOD	NODI (B)
If more than one sample is collected during the reporting period	<p>All samples collected in the same calendar month must be averaged.</p> <ul style="list-style-type: none"> • When all results are greater than or equal to the LOQ, all values are averaged • If some results are less than the LOQ, use the LOD value in the averaging • Use '0' for values less than the LOD 	The highest monthly average which occurred during the reporting period

8. For all field testing, or if the information below is not included on the laboratory reports required by Part II.B.2, the permittee shall attach a bench sheet or similar documentation to each DMR that includes, for all analytical results during the reporting period the following:
 - a. the analytical result,
 - b. the number or title of the approved analytical method, preparation and analytical procedure utilized by the field personnel or laboratory, and the LOD and LOQ for the analytical method for the parameter, and
 - c. any applicable data qualifiers using the most current revision of the Arizona Data Qualifiers (available online at: <http://www.azdhs.gov>)



C. Twenty-four Hour Reporting of Noncompliance

1. The permittee shall orally report to the Emergency Response Unit hotline at (602) 771-2330 any noncompliance that poses imminent threat to the environment or human health within 24 hours from the time the permittee becomes aware of the circumstances. The permittee shall also submit an electronic notification within 5 days of the noncompliance event using the myDEQ electronic portal provided by ADEQ. 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.

The following instances of noncompliance are subject to the 24-hour and 5-day reporting requirements and must be reported orally to the Emergency Response Unit hotline:

- a. Any unanticipated bypass which exceeds any effluent limitations in the permit,
 - b. Any upset which exceeds any effluent limitation in the permit, or
 - c. Any spill or discharge that poses an imminent threat to human health or the environment.
2. All other instances of noncompliance remain subject to the 24-hour and 5-day reporting requirements, and must call the ADEQ AZPDES hotline at (602) 771-1440. For example, an exceedance of any maximum daily limit for the parameters listed in Part 1.A Table 1 that does not poses an imminent threat to human health or the environment.

D. Retention of Monitoring Records

1. The permittee shall retain the following monitoring records:
 - a. Date, exact location and time of sampling or measurements performed, preservatives used;
 - b. Individual(s) who performed the sampling or measurements;
 - c. Date(s) the analyses were performed;
 - d. Laboratory(s) which performed the analyses;
 - e. Analytical techniques or methods used;
 - f. Chain of custody forms;
 - g. 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. If results include information on initial and continuing calibration, surrogate analyses, blanks, duplicates, laboratory control samples, matrix spike and matrix spike duplicate results, sample receipt condition, or holding times and preservation, these records must also be retained.
 - h. Summary of data interpretation and any corrective action taken by the permittee.



PART III. BIOSOLIDS / SEWAGE SLUDGE 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 of Disposal Requirements

1. All biosolids/sewage sludge generated and/or prepared at this facility shall be used or disposed of in compliance with the applicable portions of 18 A.A.C. 9, Article 10 and
2. 40 CFR 503 Subpart C: for biosolids that are placed on the land (surface disposal) for the purpose of disposal (dedicated land disposal sites, lagoons, or monofills).
3. 40 CFR 258: for biosolids disposed of in municipal solid waste landfills; and
4. 40 CFR 257: for all biosolids use and disposal practices not covered under 40 CFR 258 or 503.

B. Biosolids Preparer's Responsibility

1. The permittee is responsible for ensuring that all biosolids/sewage sludge produced or accepted at this facility are used or disposed of in accordance with 40 CFR 503 Subpart C, 257, 258 and 18 A.A.C. 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 any subsequent transporters, preparers, applicators, and disposers of the requirements that they must meet under 18 A.A.C. 9, Article 10.

C. Duty to Mitigate

1. 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 Requirements

1. The permittee shall ensure that:
 - a. No biosolids generated and/or prepared at this facility enter wetlands or other waters of the United States;
 - b. Biosolids treatment, storage, use or disposal does not contaminate surface water or groundwater. (Note: Surface disposal or land treatment sites for biosolids must be permitted under the aquifer protection program per A.A.C. R18-9-1002(E)(2) and may also require a separate AZPDES permit. The permittee shall ensure a site has appropriate permits before directing biosolids to a surface disposal or land treatment site.)
 - c. 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.
 - d. Biosolids generated and/or prepared at this facility are not applied to the land or placed on a surface disposal site if the biosolids are likely to adversely affect a threatened or endangered species as listed under section 4 of the Endangered Species Act (16 U.S.C 1533), or its designated critical habitat as defined in 16 U.S.C. 1532;



- e. Land application sites receiving bulk biosolids generated and/or prepared at this facility are registered with ADEQ in accordance with A.A.C. R18-9-1004.

E. Biosolids Storage

1. Biosolids shall not be stored on land for over two years from the time they are generated unless permit for surface disposal is obtained per 18 A.A.C. 9, Article 10 and 40 CFR 503 Subpart C, or written notification has been submitted to the ADEQ Surface Water Permits Unit with the information in 40 CFR 503.209(b) that sufficiently demonstrates the need for longer temporary storage.
2. For the protection of public health, biosolids shall not be stored uncovered on-site or off-site unless the permittee can demonstrate that prior to placement in storage:
 - a. Biosolids meet Class A or B pathogen reduction requirements established in A.A.C. R18-9-1006(D) or (E), and
 - b. Biosolids meet one of the vector attraction reduction alternatives in A.A.C. R18-9-1010 subsections (A)(1) through (A)(8).
 - c. For biosolids which are classified as EQ or Class A, or as Class B through pathogen reduction Alternative 1, the permittee must also sample for pathogen reduction following storage and within 30 days prior to reuse/disposal or distribution (see Part III.J.2.d). Sampling before storage shall occur at least at the minimum frequencies given in Part III.I.1, and sampling after storage shall be conducted as specified in Part III.I.4.
3. Prior to storing biosolids at an off-site storage location, the permittee shall notify the ADEQ Surface Water Permits Unit in writing where the biosolids will be stored and the expected date of final use or disposal.

F. Surface Water Protection

1. The permittee must design and operate all on-site treatment, disposal, or storage areas for biosolids to:
 - a. Divert surface run-on from adjacent areas to prevent contact with biosolids;
 - b. Protect the site boundaries from erosion; and
 - c. Prevent any drainage that has contacted biosolids from escaping the site.
2. These features shall be designed to be protective for at least a 25-year 24-hour storm event. If the permittee sends biosolids off-site that are not EQB, the permittee shall ensure all treatment, disposal, or storage areas that receive those biosolids have the same level of protection.

G. Facilities with Pretreatment Programs

1. Permittees with pretreatment programs shall:
 - a. Sample and analyze biosolids for all the priority pollutants listed under Section 307.a.1 of the Clean Water Act, except asbestos. This shall consist of an annual full priority pollutant scan, with quarterly samples analyzed only for those pollutants detected in the full scan.
 - b. Sample and analyze biosolids quarterly for the following Pollutants of Concern:

Arsenic	Copper	Mercury	Selenium
Cadmium	Cyanide	Molybdenum	Silver
Chromium	Lead	Nickel	Zinc



2. If any biosolids generated and/or prepared at this facility are or will be land applied, the permittee shall design local limits to achieve the ceiling and monthly average pollutant concentration levels for pollutants given in Table 9 of this permit. If pollutants in the biosolids exceed any of these monthly average pollutant concentration levels, the permittee shall revise its local limits as necessary in order to meet these levels.

H. Inspection and Entry

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

1. Enter upon all premises where biosolids 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 and per 18 A.A.C. 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 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. General Biosolids Monitoring Requirements (dry weight testing)

1. Biosolids Self-monitoring Frequency
Unless otherwise specified in this permit, the permittee shall conduct self-monitoring events at least at the frequency listed in Table 7 for any sampling required in Part III of this permit.

Table 7. Biosolids Self-Monitoring Frequency

Amount of Biosolids Prepared per Calendar Year (dry metric tons)	Minimum Monitoring Frequency
> 0 to < 290	One sampling event per year
≥ 290 to < 1,500	One sampling event per quarter
≥ 1500 to < 15,000	One sampling event per 60 days
≥ to 15,000	One sampling event per month

2. Sampling and Analysis Method
 - a. 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) that are sufficiently sensitive in accordance with 40 CFR 122.21(e)(3). Testing shall be performed at a laboratory operating in compliance with A.R.S. 36-495. Because of the potential for re-growth of pathogens, for Class A or EQ biosolids, samples demonstrating pathogen reduction shall be taken within 30 days before biosolids are shipped off-site, so verification that requirements are met is obtained before the biosolids leave the site.
3. Representative Sampling:
 - a. The permittee shall ensure that sampling conducted during a monitoring period adequately represents the quality of all biosolids used/treated/disposed over the monitoring period. This may entail taking several samples per sampling event and/or sampling more frequently than the minimum specified.



4. Testing Stockpiled/Accumulated Biosolids Prior to Distribution or Use
 - a. If, after treatment, biosolids classified as EQ or Class A, or as Class B demonstrated through Alternative 1, are stockpiled or accumulated on-site prior to reuse/disposal, the permittee shall develop a sampling plan that ensures samples representative of the entire stockpile are collected and analyzed for pathogens within 30 days before distribution or use. The plan shall detail the number and location of samples to be taken from a cross section of each pile or area. The plan must include at least 1 sample for each 0-290 metric dry ton increments. More sampling is appropriate when the biosolids are inconsistent in nature or non-uniformly treated.
 - b. The permittee must collect and analyze representative samples per the sampling plan. Distribution or use/disposal shall not occur until the permittee verifies that the biosolids sampled meet all applicable requirements for its use/disposal.
5. Testing for Hazardous Waste Determination
 - a. The permittee shall test biosolids at least annually, and more frequently as necessary, to determine if biosolids are hazardous in accordance with 40 CFR 261. Initial screening of the biosolids may be conducted by analyzing biosolids for the total amount of a pollutant. This screening test is all that is required each monitoring period if the total amount doesn't exceed the 20X TCLP screening value in Table 8. If the total amount of a pollutant exceeds the 20X TCLP screening value, then the leachable amount must be determined using the Toxicity Characteristic Leaching Procedure (TCLP). The disposal of biosolids that test hazardous is not covered under this permit, and all such biosolids must be disposed of in accordance with the Resource Conservation and Recovery Act (RCRA).



Table 8. Toxicity Characteristic Leaching Procedure Test

Parameter	TCLP Limit mg/L	20 X TCLP Screening Value mg/kg	Minimal Monitoring Frequency per Generator
Metals			
Arsenic	5	100	1x / year
Barium	100	2000	1x / year
Cadmium	1	20	1x / year
Chromium	5	100	1x / year
Lead	5	100	1x / year
Mercury	0.2	4	1x / year
Selenium	1	20	1x / year
Silver	5	100	1x / year
Volatiles and Semi-Volatiles			
Benzene	0.5	10	1x / year
Carbon Tetrachloride	0.5	10	1x / year
Chlorobenzene	100	2000	1x / year
Chloroform	6	120	1x / year
1,2-Dichloroethane	0.5	10	1x / year
1,1-Dichloroethylene	0.7	14	1x / year
Methyl ethyl ketone	200	4000	1x / year
Tetrachloroethylene	0.7	14	1x / year
Trichloroethylene	0.5	10	1x / year
Vinyl Chloride	0.2	4	1x / year
1,4-Dichlorobenzene	7.5	150	1x / year
o-cresol (1)	200	4000	1x / year
m-cresol (1)	200	4000	1x / year
p-cresol (1)	200	4000	1x / year
Cresol (total) (1)	200	4000	1x / year
2,4-Dinitrotoluene	0.13	2.6	1x / year
Hexachlorobenzene	0.13	2.6	1x / year
Hexachlorobutadiene	0.5	10	1x / year
Hexachloroethane	3	60	1x / year
Nitrobenzene	2	40	1x / year



Parameter	TCLP Limit mg/L	20 X TCLP Screening Value mg/kg	Minimal Monitoring Frequency per Generator
Pentachlorophenol	100	2000	1x / year
Pyridine	5	100	1x / year
2,4,5-Trichlorophenol	400	8000	1x / year
2,4,6-Trichlorophenol	2	40	1x / year
Herbicides / Pesticides			
2,4-D	10	200	1x / year
2,4,5-TP (Silvex)	1	20	1x / year
Chlordane	0.03	0.6	1x / year
Endrin	0.02	0.4	1x / year
Heptachlor	0.008	0.16	1x / year
Heptachlor epoxide	0.008	0.16	1x / year
Lindane	0.44	8.8	1x / year
Methoxychlor	10	200	1x / year
Toxaphene	0.5	10	1x / year

Footnotes

- 1 If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/L.

J. Biosolids Limitations and Monitoring Requirements for Land Applications

1. The permittee shall monitor biosolids generated and/or prepared at this facility for land application and limit their use as follows (Table 9).
 - a. Metals Concentrations for Land Application - Biosolids shall be sampled for the metals listed in the following table at a frequency not less than the minimum indicated for the amount of biosolids prepared annually. Samples shall be taken after all treatment and blending processes, but prior to land application.
 - b. The permittee shall not land apply biosolids with pollutant concentrations that exceed any of the ceiling concentrations in Table 9. The permittee shall not sell or give away biosolids for land application if pollutant concentrations exceed any of the ceiling concentrations in the following table.
 - c. If biosolids exceed any Ceiling Concentration in the following table, the permittee must:
 - i. Notify the ADEQ Surface Water Permits Unit;
 - ii. Find alternative disposal methods other than land application for the biosolids represented by that sampling event; and
 - iii. Identify the source of the pollutants and take appropriate source control measures to reduce the presence of the pollutant(s) of concern.
 - d. If biosolids exceed a Monthly Average Pollutant Concentration listed in the table in Part III.I.1.a above:
 - i. The biosolids shall not be applied as bulk biosolids to a lawn or garden.



- ii. The biosolids shall not be sold or given away if any annual pollutant loading rate listed in Table 3 of A.A.C. R18-9-1005(D) will be exceeded. The annual pollutant loading rate shall be determined using the methodology in 18 A.A.C. 9, Article 10, Appendix A.
- iii. The biosolids shall not be applied to a site if any cumulative pollutant loading rate in Table 4 of A.A.C. R18-9-1005(D) will be exceeded. The cumulative pollutant loading rate shall be determined using the methodology in A.A.C. R18-9-1005(D).
- e. The permittee shall not apply, sell, or give away biosolids for application to a lawn or garden unless they are Exceptional Quality (EQ) biosolids.
- f. The permittee shall be able to demonstrate that all biosolids meet the definition of EQ biosolids in order to claim exemption from the management practices in A.A.C. R18-9-1007 and R18-9-1008. If claiming biosolids are EQ, during the first two years of EQ biosolids preparation, the permittee shall submit the results of all biosolids testing and details about the pathogen and vector control treatment processes to the ADEQ Surface Water Permits Unit. The permittee shall receive written confirmation from ADEQ that the results demonstrate the biosolids meet EQ requirements prior to selling or giving away or land applying any biosolids for uses requiring an EQ biosolids classification.

Table 9. Metal Concentrations for Land Applications

Pollutant	Ceiling Concentrations (milligrams/ kilogram) (1)	Monthly Average Pollutant Concentrations (milligrams/ kilogram) (1)	Minimum Monitoring Frequency per Volume Prepared Annually
Arsenic	75.0	41.0	0 to < 290 dry metric tons—1 sampling event /year
Cadmium	85.0	39.0	
Chromium	3000.0	Not Applicable	
Copper	4300.0	1500.00	≥ 290 to < 1500 dry metric tons—1 sampling event /quarter
Lead	840.0	300.00	
Mercury	57.0	17.0	
Molybdenum	75.0	Not Applicable	≥ 1500 to < 15,000 dry metric tons—1 sampling event/60 days
Nickel	420.0	420.00	
Selenium	100.0	100.0	
Zinc	7500.0	2800.00	≥ 15,000 dry metric tons—1 sampling event /month

Footnotes

(1) Dry-weight basis.

2. Pathogen Reduction Requirements for Land Application

- a. Biosolids must meet Class A or Class B pathogen reduction requirements established in A.A.C. R18-9-1006 at the time the biosolids are land applied and, if stored uncovered prior to land application, at the time the biosolids are stored. The permittee shall also verify that the reduction is met within 30 days prior to distribution (see Part III.I.4). The permittee shall document and retain records of the treatment used to achieve Class A or Class B pathogen reduction levels and, if demonstrating treatment to Class A, the fecal coliform or *Salmonella sp.* density. Retesting is required within 30 days of distribution for EQ and Class A biosolids and for Class B biosolids if pathogen reduction was demonstrated through Alternative 1.



- b. Biosolids sold or given away in a bag or other container for land application, or applied on a lawn or home garden, shall meet the Class A pathogen reduction requirements established in A.A.C. R18-9-1006(D).
 - c. The permittee shall maintain daily records of the operating parameters for the pathogen reduction treatment alternative used. If using A.A.C. R18-9-1006(D) Alternative 4, the permittee shall demonstrate acceptable levels of enteric virus and viable helminth ova through monitoring.
 - d. Microbiological monitoring for fecal coliforms or *Salmonella sp.* to demonstrate pathogen reduction during a given monitoring period shall be conducted as close to the actual distribution or disposal of the biosolids as feasible. The analytical results must demonstrate effective pathogen reduction is achieved prior to distributing or disposing of the biosolids. If the permittee stores biosolids before they are distributed for use or disposal, microbiological testing must take place within 30 days prior to distribution or disposal.
 - e. In order to demonstrate Class B pathogen reduction using A.A.C. R18-9-1006(E) Alternative 1;
 - i. At least seven individual grab samples must be taken and analyzed for fecal coliform during each monitoring event (unless an alternate sampling plan has been approved by ADEQ).
 - ii. The geometric mean of the results must be <2,000,000 MPN/gram or CFU/gram of total solids (dry-weight basis).
 - iii. Samples are to be taken over a 14-day period to adequately represent sludge variability. (Note: A 'monitoring event' includes the period of time that samples are collected, analyzed, and the sample results provided to the permittee.)
 - f. In order to demonstrate Class A pathogen reduction, in addition to meeting one of the alternative pathogen treatment options in A.A.C. R18-9-1006(D)
 - i. At least seven individual grab samples must be collected and analyzed for fecal coliform during each monitoring event (unless an alternate sampling plan has been approved by ADEQ) and all seven samples must be < 1,000 MPN/gram.; or
 - ii. At least seven individual grab samples must be collected and analyzed for *Salmonella sp.* during each monitoring event (unless an alternate sampling plan has been approved by ADEQ) and each must be <3 MPN/4 grams total solids (dry-weight basis).
 - iii. Samples are to be taken over a 14-day period to adequately represent sludge variability.
 - g. If demonstrating Class A pathogen reduction using A.A.C. R18-9-1006(D) Alternative 4;
 - i. One composite sample consisting of at least seven grab samples must be collected and analyzed for enteric virus during each monitoring event and the arithmetic mean of 4 duplicate analyses of that composite must be < 1 PFU/ 4 grams total solids (dry-weight basis). Grab samples are to be taken over a 14-day period prior to compositing them to adequately represent sludge variability, and the maximum holding time is 2 weeks.
 - ii. One composite sample consisting of at least seven grab samples must be collected and analyzed for viable helminth ova during each monitoring event and the arithmetic mean of 4 duplicate analyses of that composite must be < 1 viable ova/ 4 grams total solids (dry-weight basis). Grab samples are to be taken over a 14-day period prior to compositing them to adequately represent sludge variability.
3. Vector Attraction Reduction Requirements for Land Application
- a. The permittee shall ensure that all biosolids generated and/or prepared at this facility meet the vector attraction reduction requirements established in A.A.C. R18-9-1010 when the biosolids are land-applied. If biosolids are stored uncovered prior to land application, one of the vector attraction reduction alternatives established in A.A.C. R18-9-1010 subsections (A)(1) through (A)(8) must be met prior to storage. The permittee shall document and retain records of the operational parameters or application methods used to achieve the vector attraction reduction requirements.



- b. The permittee shall ensure that all biosolids generated and/or prepared at this facility that are sold or given away in a bag or other container, or applied to a lawn or home garden, meet one of the vector attraction reduction alternatives established in A.A.C. R18-9-1010 subsections (A)(1) through (A)(8). The permittee shall document and retain records of the operational parameters or application methods used to achieve the vector attraction reduction requirements.

K. Management Practices for Land Applications

1. The permittee shall ensure that all non-EQ bulk biosolids generated and/or prepared at this facility are land applied in accordance with the management practices in A.A.C. R18-9-1007, unless the bulk biosolids are land applied for reclamation.
2. If the permittee generates or prepares non-EQ bulk biosolids that are land applied for reclamation, the permittee shall ensure that the biosolids are land applied in accordance with the management practices in A.A.C. R18-9-1008.
3. If the permittee generates or prepares non-EQ biosolids placed in a bag or other container for distribution/land application or reclamation, the permittee shall distribute a label or information sheet to the person receiving the material. This label or information sheet shall contain the information in A.A.C. R18-9-1007(B).

L. Biosolids/Sewage Sludge Limitations and Monitoring Requirements for Surface Disposal

The permittee shall ensure that any sewage sludge or biosolids directed to or placed in a surface disposal unit meets the requirements of 40 CFR 503 Subpart C. The permittee shall also ensure the surface disposal site is permitted under the aquifer protection program and has a valid AZPDES permit prior to disposal of any biosolids in the unit.

M. Biosolids Monitoring Requirements for Disposal in a Municipal Landfill

Biosolids placed in a municipal landfill shall be tested by the Paint Filter Test (method 9095) at the frequency in Table 9 or more often as necessary to demonstrate that there are no free liquids. The permittee shall keep records documenting that biosolids disposed in a municipal landfill did not contain free liquids.

N. On-site Management Plan

1. The permittee shall submit a Management Plan (Plan) within 180 days of permit issuance or maintain a previously submitted Plan for the on-site management operations.
2. 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 shall give specific protocols to be followed to ensure that the material generated at this facility will consistently meet all applicable requirements in 18 A.A.C. 9, Article 10 and 40 CFR Part 503 Subpart C and the provisions of this permit. The Plan must address issues of potential concern such as storage areas; run-on and run-off control; 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 specify how and when representative samples of biosolids will be taken and contain a contingency plan for managing biosolids that exceed the requirements for the expected end use/disposal.



O. Record Keeping

1. The permittee shall collect and retain all biosolids information required by this permit and 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 biosolid records are subject to periodic inspection, and copying by ADEQ.

P. Notification Requirements

1. The permittee, either directly or through contractual arrangements with their biosolids management contractors, shall comply with the following:
2. Notification of Noncompliance
 - a. The permittee shall notify ADEQ of any noncompliance with the biosolids provisions of this permit or with 18 A.A.C. 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 (See Part II.C of this permit.)
 - b. For other instances of noncompliance with the biosolids provisions, the permittee shall notify the ADEQ Surface Water Permits Unit 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 noncompliance within the time-frames specified in Sections P.2.a and b.
3. Notification of Shipment to another State
If biosolids are shipped to another State or to Indian Lands, the permittee shall send a notice of the shipment to the NPDES 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 Arizona Surface Water Permits Unit. The notice shall be sent at least 60 days before the biosolids are planned to be shipped.
4. Notification of Change in Land Application Sites, Applicators, or Disposal Methods
 - a. Prior to sending, placing or applying any bulk biosolids generated and/or prepared at this facility to a site that the permittee has not previously utilized for biosolids use/disposal within the last five years, the permittee must verify that the application site has been registered in accordance with A.A.C. R18-9-1004 and shall notify the ADEQ Surface Water Permits Unit of the planned change. The notification shall include a description and topographic map of the proposed site(s), latitude and longitude coordinates at the center of each field/site, slope of land surface, names and addresses of the applicator(s) and site owner(s), a listing of any state or local permits which must be obtained, a description of the crops or vegetation to be grown at each site, proposed loading rates and determination of agronomic rates.
 - b. Prior to selling or giving away bulk biosolids for land application to an applicator that the permittee has not sold or given biosolids to within the last five years, the permittee shall notify the ADEQ Surface Water Permits Unit of the planned change. The notification shall include: the name, address, and telephone number of the applicator and any agent of the applicator; the name and telephone number of a primary contact person who has specific knowledge of the land application activities of the applicator; and whether the applicator holds a NPDES or AZPDES permit, and, if so, the permit number.



- c. Prior to changing the method of biosolids use, treatment or disposal that was identified in the permittee's application for this permit, the permittee shall notify the ADEQ Surface Water Permits Unit of the planned change in writing. If ADEQ determines that the newly proposed practice is not covered under this permit, the permittee shall request and receive a permit modification prior to making the change.
- d. The permittee shall keep records of site registration verifications and of all notifications made to ADEQ.

5. **Notification of Land Application of Biosolids that Exceed Monthly Average Pollutant Concentrations**
The permittee must notify the ADEQ Surface Water Permits Unit and any subsequent biosolids handlers if biosolids generated and/or prepared at this facility do not meet any of the Monthly Average Pollutant Concentration values listed in Table 9. The permittee shall ensure that bulk biosolids exceeding a monthly average pollutant concentration will not be applied to a site if any cumulative pollutant loading rate (Table 4 in A.A.C. R18-9-1005) will be exceeded per A.A.C. R18-9-1005(D)(2).
6. **Notification to Subsequent Land Applicators**
The permittee shall notify the applicator of all the applicator's requirements under Title 18 Chapter 9 Article 10 including the requirement that the applicator certify that management practices, site restrictions, and any applicable vector attraction reduction requirements have been met.
7. **Notification of Surface Disposal**
Prior to disposal in a new or previously unreported surface disposal site, the permittee shall notify the Surface Water Permits Unit in writing. Notice shall include a description and a topographic map of the proposed site; the names of the site operator and site owner; whether the site has any permits; and shall include a description of procedures for ensuring public access and grazing restrictions until three years following site closure. The permittee shall not direct biosolids to the surface disposal site without prior written approval from ADEQ.

Q. Annual Report for all Permittees

1. The permittee shall submit an annual biosolids report to ADEQ by February 19 of each year for the period covering the previous calendar year. The report shall be filled out on forms prescribed by ADEQ and shall include.
 - a. The amount of biosolids received/generated the previous calendar year and the amount stored at the beginning and end of the previous calendar year, in dry tons or dry metric tons (prefer metric tons), and the amount distributed.
 - b. The results of all biosolids analytical monitoring conducted during the previous calendar year and copies of the laboratory analytical reports. Metals (other than TCLP metals) shall be reported on a 100% dry weight basis. Note: make certain microbiological testing submitted meets required holding times.
 - c. Descriptions of pathogen reduction methods and vector attraction reduction methods used during the previous calendar year. The permittee must submit sludge processing data used to demonstrate how treatment alternative(s) in A.A.C. R18-9-1006 and R18-9-1010 were attained, (such as time, temperature, percent solids, pH etc.) as applicable.
 - d. Names, mailing addresses, and street addresses of all persons who received biosolids generated and/or prepared at this facility for storage, further treatment, disposal in a municipal waste landfill, or for other use/disposal methods not covered under 40 CFR 258 or 503, and the amount delivered to each.



- e. 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:
 - i. Locations of land application sites (with field names and numbers) used that calendar year, size of each field applied to, applicator, and site owner;
 - ii. Volumes applied to each field (in wet tons and dry metric tons), nitrogen applied, calculated plant available nitrogen;
 - iii. Crop(s) planted, date of planting, harvesting;
 - iv. 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 each of these sites to date;
 - v. Certifications of management practices in A.A.C. R18-9-1007 or A.A.C. R18-9-1008; and
 - vi. Certifications of site restrictions in A.A.C. R18-9-1009.
- f. For surface disposal sites, the permittee shall ensure that the following information is submitted, the permittee requires its biosolids management contractors to report this information directly to ADEQ:
 - i. Locations of sites, site operator, site owner, size of parcel on which disposed;
 - ii. Results of any required groundwater monitoring;
 - iii. A description of and certifications of management practices in 40 CFR 503.24; and
 - iv. For closed sites, date of site closure and certifications of management practices for the three years following site closure.

R. Reporting

An electronic copy of the annual report shall be submitted to biosolids@azdeq.gov. ADEQ is developing an electronic reporting portal through myDEQ where all annual reports shall be submitted. ADEQ will notify the permittee that all reports shall be submitted through the electronic portal in accordance with the U.S. EPA's electronic reporting requirements when the myDEQ portal becomes available.



PART IV. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. General Conditions

1. The permittee shall conduct chronic or acute toxicity tests on an 8-hour composite samples of the final effluent at the frequencies specified in Part I. 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 all the parameters listed in Parts I.A and B of this permit whose required sample type is a composite shall be performed on a split of one composite sample taken for an acute WET test or a split of at least one of the three composite samples taken for one chronic WET test. For those parameters listed in Parts I.A and B of this permit whose required sample type is discrete, the testing shall be performed on a discrete sample collected concurrently with one sample, discrete or composite, collected for an acute or chronic WET test.
4. Definitions related to toxicity are found in Appendix A.

B. Acute Toxicity

1. If chronic toxicity testing is not required per 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.
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 toxicity testing. 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, *Pseudokirchneriella subcapitata* (formerly known as *Selenastrum capricornutum* or *Raphidocelis subcapitata*) (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 monitoring period in which the discharge(s) does not occur over seven consecutive calendar days and is (are) not repeated more frequently than every thirty days, except as specified in Part I.D (chronic WET testing for effluent characterization is required whether discharging or not). The discharge does not have to be continuous to fall under this requirement.
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 result greater than 1.6 TUC or any calculated monthly median value greater than 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, and 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 (i.e., 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. *No Significant Difference in Test Controls* - 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. *Significant Difference in Test Controls* - 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) Process

1. If acute or chronic toxicity is detected above a WET action level or Limit specified in this permit and the source of toxicity is known (for instance, a temporary plant upset), 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. For intermittent discharges, the follow-up test shall be conducted whether discharging or not. 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 acute or chronic toxicity is detected above an action level or Limit specified in this permit 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 limit) 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, the first follow-up test shall be conducted whether discharging or not; the subsequent three follow-up tests shall be conducted during the next three discharge events.
 - a. If none of the four tests exceed a WET action level or limit, then the permittee may return to the routine WET testing frequency specified in this permit.



- b. If a WET action level or limit 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.A and B, Tables 1 and 2, and Part IV.A.3 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.



PART V. SPECIAL CONDITIONS

A. Operation

1. 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

1. 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.

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Appendix A. Part A: Acronyms

A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
ADHS	Arizona Department of Health Services
EQ	Exceptional Quality (biosolids)
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
PFU	Plaque-Forming Unit
QA	Quality Assurance
SSU	Sewage Sludge Unit
TBEL	Technology-based Effluent Limitation
µg/L	Micrograms per Liter, also equal to parts per billion (ppb)
WQBEL	Water quality-based Effluent Limitation

Appendix A. Part B: Definitions

Active Sewage Sludge Unit	A sewage sludge unit that has not closed.
Acute Toxicity Test	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., pint estimate techniques or hypothesis testing) and is reported as PASS/FAIL or in TUas, where $TU_a = 100LC_{50}$.
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.
Agronomic Rate	The whole biosolids application rate on a dry-weight basis that meets the following conditions: a.) The amount of nitrogen needed by existing vegetation or a planned or actual crop has been provided, and b.) The amount of nitrogen that passes below the root zone of the crop or vegetation is minimized.
Ammonia Impact Ratio (AIR)	The ratio of the concentration of ammonia in the effluent and the calculated ammonia standard as determined by the use of effluent/receiving water pH and temperature.
Annual Pollutant Loading Rate	The maximum amount of a pollutant that can be applied to an acre or hectare of land during a 365-day period.



Applicator	A person who arranges for and controls the site-specific land application of biosolids in Arizona.
Base Flood	A flood that has a one percent chance of occurring in any given year (or a flood that is likely to occur once in 100 years).
Bulk Biosolids	Biosolids that are transported and land-applied in a manner other than in a bag or other container holding biosolids of 1.102 short tons or 1 metric ton or less.
Chronic Toxicity Test	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	A sample that is formed by combining a series of individual, discrete samples of specific volumes at specified intervals. Composite samples characterize the quality of a discharge over a given period of time. Although, composite samples can be time-weighted or flow-weighted, this permit requires the collection of flow-proportional composite samples. This means that samples are collected and combined using aliquots in proportion to flow rather than time. Also see Flow-Proportional Composite.
Cumulative Pollutant Loading Rate	The maximum amount of a pollutant applied to land application site.
Daily Maximum Concentration Limit	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	The maximum allowable total mass of a pollutant discharged in a calendar day.
Daily Mass Loading	The mass loading reported against the daily maximum mass limit. The measured daily pollutant discharges by mass. Use the flow observed on the day of sample collection. If there are multiple samples collected within the monitoring period, calculate the daily mass loading as above for each day sampling occurred. Report the highest mass value.
Discrete or Grab Sample	An individual sample of at least 100 mL collected from a single location, or over a period of time not exceeding 15 minutes.
Dry-Weight Basis	The weight of biosolids calculated after the material has been dried at 105 °C until reaching a constant mass.
Effect Concentration Point (ECP)	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).
Effluent Dependent Water	Effluent Dependent Water means a surface water or portion of a surface water that consists of a point source discharge without which the surface water would be ephemeral. An effluent dependent water may be perennial or intermittent depending on the volume and frequency of the point source discharge of treated wastewater.
Ephemeral Water	Ephemeral water means a surface water or portion of surface water that flows or pools only in direct response to precipitation.
Exceptional Quality Biosolids	Biosolids certified under R18-9-1013(A)(6) as meeting the pollutant concentrations in R18-9-1005 Table 2, Class A pathogen reduction in R18-9-1006, and one of the vector attraction reduction requirements in subsections R-18-9-1010(A)(1) through R18-9-1010(A)(8).

Flow Proportional Composite Sample	A sample that combines discrete samples collected over time, based on the flow of the discharge being sampled. There are two methods used to collect this type of sample. One collects a constant sample volume at time intervals that vary based on stream flow. The other collects discrete samples that are proportioned into aliquots of varying volumes based on stream flow, at constant time intervals (i.e. flow-weighted composite sample).
Hardness	The sum of the calcium and magnesium concentrations, expressed as calcium carbonate (CaCO_3) in milligrams per liter.
Hypothesis Testing	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.
Impaired Water	Impaired water means a protected surface water for which credible scientific data exists that satisfies the requirements of section 49-232, and that, in the case of waters of the U.S., demonstrate that the water should be identified pursuant to 33 United States Code section 1313(d) and the regulations implementing that statute
Inhibition Concentration (IC)	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.
Intermittent Water	Intermittent water means a surface water or portion of surface water that flows continuously during certain times of the year and more than in direct response to precipitation, such as when it receives water from a spring, elevated groundwater table or another surface source such as melting snowpack.
Land Application or Land Apply	Spraying or spreading biosolids on the surface of the land, injecting biosolids below the land's surface, or incorporating biosolids into the soil to amend, condition, or fertilize the soil.
Land Treatment Facility	An operation designed to treat and improve the quality of waste, wastewater, or both, by placement wholly or in part on the land surface to perform part or all of the treatment. A land treatment facility includes a facility that performs biosolids drying, processing, or composting, but not land application performed in compliance with 18 A.A.C. 9, Article 10.
LC50	The toxicant (or effluent) concentration that would cause death in 50 percent of the test organisms.
Limit of Quantitation (LOQ)	The minimum levels, concentrations, or quantities of a target variable such as an analyte that can be reported with a specific degree of confidence. The calibration point shall be at or below the LOQ. The LOQ 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.

Limit of Detection (LOD)	An analyte and matrix-specific estimate of the minimum amount of a substance that the analytical process can reliably detect with a 99% confidence level. This may be laboratory dependent and is developed according to R9014-615(C)(7).
Method Detection Limit (MDL)	See LOD
Mixing Zone	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 <i>E. coli</i> 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 n th root of the product of n numbers. For either method (CFU or MPN), when data are reported as "0" or non-detect then input a "1" into the calculation for the geometric mean.
Monthly Average Mass Limit	The highest allowable value that shall be obtained by taking the total mass discharged during a calendar month divided by the number of days in the month that the facility was discharging.
Monthly Average Mass Loading	The mass loading reported against the monthly average mass limit. The monthly average value shall be determined by the summation of all the measured pollutant discharges by mass divided by the number of days during the month when the measurements were made. If monitoring is required less frequently than monthly, calculate the average monthly mass loading for any month that sampling occurred. Report the highest monthly average within the monitoring period.
Non-wotus protected surface water	Non-wotus protected surface water means a protected surface water that is not a WOTUS.
No Observed Effect Concentration (NOEC)	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 <u>not</u> statistically significant different from the controls).
Pathogen	A disease-causing organism.
Point Estimate Techniques	As Probit, Interpolation Method, Spearman-Kärber 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.
Point Source	Point Source means any discernible, confined and discrete conveyance, including, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft from which pollutants are or may be discharged to a protected surface water. Point source does not include return flows from irrigated agriculture.
Protected Surface Waters	Protected Surface Waters means waters of the State listed on the protected surface water list under Section 49-221, Subsection G and all WOTUS.



Publicly owned treatment works	Publicly owned treatment works" means a treatment works owned by this state or a municipality of this state as defined in section 502(4) of the clean water act or that discharges to a protected surface water.
Reference Toxicant Test	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.
Runoff	Rainwater, leachate, or other liquid that drains over any part of a land surface and runs off of the land surface.
Sewage Sludge Unit	Land on which only sewage sludge is placed for final disposal. This does not include land on which sewage sludge is either stored or treated. Land does not include navigable waters.
Significant Difference	Defined as statistically significant difference (e.g., 95% confidence level) in the means of two distributions of sampling results.
Single Concentration Acute Test	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).
Store Biosolids or Storage of Biosolids	The temporary holding or placement of biosolids on land before land application.
Surface Disposal Site	An area of land that contains one or more active sewage sludge units.
Submit	As used in this permit, means post-marked, documented by other mailing receipt, sent electronically, or hand-delivered to ADEQ.
Surface Water Quality Standards	Surface Water Quality Standards means a standard adopted for a protected surface water pursuant to Section 49-221 and, in the case of WOTUS, pursuant to Section 49-222.
Test Acceptability Criteria (TAC)	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.
Ton	A net weight of 2000 pounds and is known as a short ton.
Total Maximum Daily Loads (TMDLs)	Total Maximum Daily Loads (TMDLs) is an estimation of the total amount of a pollutant from all sources that may be added to a water, while still allowing the water to achieve and maintain applicable surface water quality standards. Each total maximum daily load shall include allocations for sources that contribute the pollutant to the water. Total Maximum Daily Loads for waters of the U.S. shall meet the requirements of section 303(d) of the Clean Water Act (33 USC 1313(d)) and regulations implementing that statute to achieve applicable surface water quality standards.
Total Solids	The biosolids material that remains when sewage sludge is dried at 103° C to 105° C.
Toxic Unit (TU)	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.
Toxicity Identification Evaluation (TIE)	A set of procedures used to identify the specific chemical(s) causing effluent toxicity.

Toxicity Reduction Evaluation (TRE)	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	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.
Vectors	Rodents, flies, mosquitoes, or other organisms capable of transporting pathogens.
Waters of the United States (WOTUS)	Waters of the United States (WOTUS) means protected surface waters that are also navigable waters as defined by Section 502(7) of the Clean Water Act.
Weekly Average Mass Limit	The highest allowable value that shall be obtained by taking the total mass discharged during a calendar week divided by the number of days in the week that the facility was discharging.
Weekly Average Mass Loading	The mass loading reported against the weekly average mass limit. The weekly average value shall be determined by the summation of all the measured pollutant discharges by mass divided by the number of days during the week when the measurements were made.
WOTUS Protected Surface Water	WOTUS protected surface water- means a protected surface water that is a WOTUS.
Whole Effluent Toxicity	The total toxic effect of an effluent measured directly with a toxicity test.



Appendix B. AZPDES Discharge Flow Record

SaddleBrooke Ranch Water Reclamation Plant—AZ0024775			
Discharge to Upper Holding Ravine, tributary to Big Wash the Santa Cruz Basin At:			
Outfall No:	001		
Location:	Township 10 S, Range 14 E, Section 7 Latitude 32° 34' 19.992" N, Longitude 110° 56' 3.0114" W		
Month:		Year:	
Date:	Flow Duration ⁽¹⁾ (Total hours 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 discharge in MGD. If no discharge occurs on any given day, report 'ND' for the flow for that day.

[illegible]



Appendix C. Continued—Ammonia Special Reporting Requirements

Arizona Administrative Code, Title 18, Chapter 11 Department of Environmental Quality Water Quality Standards contains acute and chronic ammonia standards that are contingent upon temperature and/or pH values. The chronic criteria are more stringent than the acute ammonia criteria, so the effluent ammonia will be compared to the chronic ammonia standards. The table for chronic Aquatic and Wildlife designated uses follow below. The permittee shall refer to this table to determine the ammonia standard that applies each time an ammonia sample is taken. The required minimum discharge sampling permit. The permittee shall record all sampling results for effluent ammonia, effluent pH and temperature at the time of sampling, as well as the applicable ammonia standards, ammonia impact ratios, and sampling dates in the Ammonia Data Log. Additionally, the ammonia impact ratio shall be calculated by dividing the ammonia value by the corresponding ammonia standard. Anytime an ammonia impact ratio is found to be above the limit of 1.0 for the pH and temperature at the time the sample was taken, the permittee shall highlight this on the ammonia data log. These results shall also be reported on DMRs with any exceedances noted. Annual submittal of the ammonia data log is required (See Part II.B.3)

A&W Designated Uses

Determination of Chronic Total Ammonia Criteria as N in mg / L Based on pH and Temperature at Time of Sampling (1) (2)										
pH	Temperature, °C									
	0	14	16	18	20	22	24	26	28	30
6.5	6.7	6.7	6.1	5.3	4.7	4.1	3.6	3.2	2.8	2.5
6.6	6.6	6.6	6.0	5.3	4.6	4.1	3.6	3.1	2.8	2.4
6.7	6.4	6.4	5.9	5.2	4.5	4.0	3.5	3.1	2.7	2.4
6.8	6.3	6.3	5.7	5.0	4.4	3.9	3.4	3.0	2.6	2.3
6.9	6.1	6.1	5.6	4.9	4.3	3.8	3.3	2.9	2.6	2.3
7.0	5.9	5.9	5.4	4.7	4.2	3.7	3.2	2.8	2.5	2.2
7.1	5.7	5.7	5.2	4.5	4.0	3.5	3.1	2.7	2.4	2.1
7.2	5.4	5.4	5.0	4.3	3.8	3.3	2.9	2.6	2.3	2.0
7.3	5.1	5.1	4.6	4.1	3.6	3.1	2.8	2.4	2.1	1.9
7.4	4.7	4.8	4.3	3.8	3.3	3.0	2.6	2.3	2.0	1.7
7.5	4.4	4.4	4.0	3.5	3.1	2.7	2.4	2.1	1.8	1.6
7.6	4.0	4.0	3.6	3.2	2.8	2.5	2.2	1.9	1.7	1.5
7.7	3.6	3.6	3.3	2.9	2.5	2.2	1.9	1.7	1.5	1.3
7.8	3.2	3.2	2.9	2.5	2.2	2.0	1.7	1.5	1.3	1.2
7.9	2.8	2.8	2.5	2.2	2.0	1.7	1.5	1.3	1.2	1.0
8.0	2.4	2.4	2.2	1.9	1.7	1.5	1.3	1.2	1.0	0.90
8.1	2.1	2.1	1.9	1.7	1.5	1.3	1.1	1.0	0.88	0.77
8.2	1.8	1.8	1.6	1.4	1.3	1.1	0.97	0.86	0.75	0.66



Determination of Chronic Total Ammonia Criteria as N in mg / L Based on pH and Temperature at Time of Sampling (1) (2)										
pH	Temperature, °C									
	0	14	16	18	20	22	24	26	28	30
8.3	1.5	1.5	1.4	1.2	1.1	0.94	0.83	0.73	0.64	0.56
8.4	1.3	1.3	1.2	1.0	0.91	0.80	0.70	0.62	0.54	0.48
8.5	1.1	1.1	0.99	0.87	0.77	0.67	0.59	0.52	0.46	0.40
8.6	0.92	0.92	0.84	0.74	0.65	0.57	0.50	0.44	0.39	0.34
8.7	0.78	0.78	0.71	0.62	0.55	0.48	0.42	0.37	0.33	0.29
8.8	0.66	0.66	0.60	0.53	0.46	0.41	0.36	0.32	0.28	0.24
8.9	0.57	0.57	0.51	0.45	0.40	0.35	0.31	0.27	0.24	0.21
9.0	0.49	0.49	0.44	0.39	0.34	0.30	0.26	0.23	0.20	0.18

Footnotes

- 1 pH and temperature are field measurements taken at the same time and location as the water samples destined for the laboratory analysis of ammonia.
- 2 If field measured pH and/or temperature values fall between the Chronic Total Ammonia tabular values, round field measured values according to standard scientific rounding procedures to nearest tabular value to determine the ammonia standard.

**Appendix D. Standard AZPDES Permit Conditions & Notifications**

(Updated as of February 2, 2004)

1. **Duty to Reapply—[R18-9-B904(B)]**
Unless the Permittee permanently ceases the discharging activity covered by this permit, the Permittee shall reapply, submit a new application, 180 days before the existing permit expires. ADEQ must receive the new application at least 180 days before permit expiration in order to start the re-application process.
2. **Applications—[R18-9-A905(A)(1)(C) which incorporates 40CFR 122.22]**
 - a. All applications shall be signed as follows:
 - i. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - A. A president, secretary, treasure, 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;
 - ii. For partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - iii. 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:
 - i. The authorization is made in writing by a person described in paragraph (a) of this section;
 - ii. 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,
 - iii. 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. For discharges to a WOTUS, 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:
 - i. The date, exact place and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) the analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. 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:
 - i. The alteration or addition to a permitted facility that discharges to a WOTUS, 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
 - ii. 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)).
 - iii. 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.
 - i. 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.
 - ii. 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.
 - iii. 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.
 - i. 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.
 - ii. 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
 - i. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
 - ii. "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.
 - i. 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.
 - ii. 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.
 - i. 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.
 - ii. 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:
 - i. An upset occurred and that the Permittee can identify the cause(s) of the upset;
 - ii. The permitted facility was at the time being properly operated; and
 - iii. The Permittee submitted notice of the upset as required in paragraph (f)(2) of Section 13 (24-hour notice).
 - iv. 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":
 - i. One hundred micrograms per liter (100 µg/l);
 - ii. 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;
 - iii. 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
 - iv. 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":
 - i. Five hundred micrograms per liter (500 µg/l);
 - ii. One milligram per liter (1 mg/l) for antimony;
 - iii. 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));
 - iv. 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:
 - i. 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
 - ii. 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.
 - iii. 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.

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 materials 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 that discharges to a WOTUS 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 be 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 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.

29. State or Tribal Law - [Pursuant to R 18-9-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.

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CHAPTER 9. DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER POLLUTION CONTROL

- a. Modified individual permit. The Director shall reopen only the modified conditions when preparing a new draft permit and process the modifications.
- b. Revoked and reissued individual permit.
 - i. The permittee shall submit a new application.
 - ii. The Director shall reopen the entire permit just as if the permit had expired and was being reissued.
3. During any modification, or revocation and reissuance proceeding, the permittee shall comply with all conditions of the existing permit until a new final permit is issued.

B. Minor modifications.

1. Upon consent of the permittee, the Director may make any of the following modifications to an individual permit:
 - 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, if no other change in the 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 permittees has been submitted to the Director;
 - f. Change the construction schedule for a new source discharger. The change shall not affect a discharger's obligation to have all pollution control equipment installed and in operation before the discharge;
 - g. Delete a point source outfall if the discharge from that outfall is terminated and does not result in a discharge of pollutants from other outfalls except under permit limits;
 - h. Incorporate conditions of a POTW pretreatment program approved under 40 CFR 403.11 and 40 CFR 403.18, which is incorporated by reference in R18-9-A905(A)(7)(b) as enforceable conditions of the permit, and
 - i. Annex an area by a municipality.
2. Any modification processed under subsection (B)(1) is not subject to the public notice provision under R18-9-A907 or public participation procedures under R18-9-A908.

C. Permit termination.

1. The Director may terminate an individual permit during its term or deny reissuance of a permit for any of the following causes:
 - a. The permittee's failure to comply 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 fact;
 - c. The Director determined that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or

- d. A change occurs in any condition that requires either a temporary or permanent reduction or elimination of any discharge, sludge use, or disposal practice controlled by the permit, for example, a plant closure or termination of discharge by connection to a POTW.
2. If the Director terminates a permit during its term or denies a permit renewal application for any cause listed in subsection (C)(1), the Director shall issue a Notice of Intent to Terminate, except when the entire discharge is terminated.
 - a. Unless the permittee objects to the termination notice within 30 days after the notice is sent, the termination is final at the end of the 30 days.
 - b. If the permittee objects to the termination notice, the permittee shall respond in writing to the Director within 30 days after the notice is sent.
 - c. Expedited permit termination. If a permittee requests an expedited permit termination procedure, the permittee shall certify that the permittee is not subject to any pending state or federal enforcement actions, including citizen suits brought under state or federal law.
 - d. The denial of a request for termination is not subject to public notice, comment, or hearing under R18-9-A907 and R18-9-A908(A) and (B).

Historical Note

New Section made by final rulemaking at 7 A.A.R. 5879, effective December 7, 2001 (Supp. 01-4).

R18-9-B907. Individual Permit Variances

- A.** The Director may grant or deny a request for any of the following variances:
 1. An extension under section 301(i) of the Clean Water Act (33 U.S.C. 1311) based on a delay in completion of a POTW;
 2. After consultation with EPA, an extension under section 301(k) of the Clean Water Act (33 U.S.C. 1311) based on the use of innovative technology;
 3. A variance under section 316(a) of the Clean Water Act (33 U.S.C. 1326) for thermal pollution, or
 4. A variance under R18-11-122 for a water quality standard.
- B.** The Director may deny, forward to EPA with a written concurrence, or submit to EPA without recommendation a completed request for:
 1. A variance based on the economic capability of the applicant under section 301(c) of the Clean Water Act (33 U.S.C. 1311); or
 2. A variance based on water quality related effluent limitations under 302(b)(2) (33 U.S.C. 1312) of the Clean Water Act.
- C.** The Director may deny or forward to EPA with a written concurrence a completed request for:
 1. A variance based on the presence of fundamentally different factors from those on which an effluent limitations guideline is based; and
 2. A variance based upon water quality factors under section 301(g) of the Clean Water Act (33 U.S.C. 1311).
- D.** If the Department approves a variance under subsection (A) or if EPA approves a variance under subsection (B) or (C), the Director shall prepare a draft permit incorporating the variance. Any public notice of a draft permit for which a variance or modification has been approved or denied shall identify the applicable procedures for appealing the decision.