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9 Attorneys for Liberty Utilities (Litchfield Park Water & Sewer) Corp.

10 **BEFORE THE ARIZONA CORPORATION COMMISSION**

11
12 IN THE MATTER OF THE APPLICATION
OF LIBERTY UTILITIES (LITCHFIELD
13 PARK WATER & SEWER) CORP. FOR A
CERTIFICATE OF CONVENIENCE AND
14 NECESSITY TO PROVIDE WASTEWATER
UTILITY SERVICE IN MARICOPA
15 COUNTY, ARIZONA.

DOCKET NO: SW-01428A-20-

**APPLICATION FOR EXTENSION
OF CERTIFICATE OF
CONVENIENCE AND NECESSITY**

16 In accordance with A.A.C. R14-2-602, Liberty Utilities (Litchfield Park Water &
17 Sewer) Corp. ("Liberty Litchfield Park" or "Applicant"), an Arizona public service
18 corporation, applies to the Arizona Corporation Commission ("Commission") for an order
19 approving the extension of Liberty Litchfield Park's existing Certificates of Convenience
20 and Necessity ("CC&N") for water and wastewater utility service to include the Falcon
21 Golf Club Estates ("Falcon Golf") development located in certain defined portions of
22 Maricopa County, Arizona.

23 **FALCON GOLF CLUB ESTATES**

24 1. Falcon Golf ("the Property" or "Extension Area") is currently a 157 acre golf
25 course with club house and maintenance area. The site is made up of two parcels located
26 at Camelback and 152nd Avenue in Maricopa County, Arizona (unincorporated).

1 The Property lies within Section 17, Township 2 North, Range 1 West of the Gila & Salt
2 River Baseline and Meridian in Maricopa County.

3 2. The Property is owned by SCM Clearwater LLLP/ETAL. ("Property
4 Owner").

5 3. The Property Owner has retained HILGARTWILSON, LLC to engineer the
6 development of the Property, which is anticipated to be fully engineered for construction
7 by Mark Ipson and Logan Hopp.

8 4. The Property Owner has requested that water and wastewater utility service
9 to the Property be provided by Liberty Litchfield Park. Water supplied to the Property will
10 be provided from Litchfield Park's existing water supply wells and distribution lines and
11 from an existing well off-site currently serving the Property pursuant to a well-sharing
12 agreement that will be conveyed by Property Owner to Liberty Litchfield Park. All
13 wastewater flows generated by the Property will be delivered to Liberty Litchfield Park's
14 existing Palm Valley Water Reclamation Facility ("PVWRF"). The Property will be served
15 by new 8-inch, 10-inch and 12-inch sewer mains running in the proposed streets with an
16 outfall to a new manhole near the intersection of 152nd Avenue and Camelback. From there
17 wastewater will gravity flow south in existing Liberty Litchfield Park 12" sewer lines to
18 PVWRF.

19 **CC&N EXTENSION APPLICATION**

20 5. Applicant's legal name, mailing address and telephone number are: Liberty
21 Utilities (Litchfield Park Water & Sewer) Corp., 12725 W. Indian School Road, Suite D-
22 101, Avondale, Arizona, (623) 935-9367. Applicant is a public service corporation formed
23 for the purpose of providing water and wastewater utility service in Maricopa County,
24 Arizona. Liberty Litchfield Park is a private water and wastewater utility company in the
25 Phoenix Active Management Area. Liberty Litchfield Park holds two CC&Ns issued by
26 the Commission authorizing Liberty Litchfield Park to provide public water and wastewater

1 utility service within its certificated service areas. Liberty Litchfield Park's CC&N
2 generally encompasses an approximately 20 square mile area west of the Agua Fria River
3 between Luke Air Force Base and interstate highway I-10.

4 6. The name, address and corporate structure for Liberty Litchfield Park are set
5 forth in the attached **Exhibit 1**, including the amount of stock authorized and subsequently
6 issued. The names, titles and mailing addresses for Liberty Litchfield Park's officers and
7 directors are also set forth on the attached **Exhibit 1**. Liberty Litchfield Park does not own
8 an interest in any other utility companies. Liberty Litchfield Park's parent company owns
9 six other public service corporations providing water and wastewater utility service in
10 Arizona.

11 7. Liberty Litchfield Park's Certificate of Good Standing from the Commission
12 is attached as **Exhibit 2**.

13 8. Liberty Litchfield Park's management contact is Matthew Garlick, President,
14 12725 W. Indian School Road, Suite D-101, Avondale, AZ 85392. Mr. Garlick's telephone
15 number is (623) 298-3763 and his email address is Matthew.Garlick@LibertyUtilities.com.

16 9. Liberty Litchfield Park's operator certified by the Arizona Department of
17 Environmental Quality ("ADEQ") is Rick Rhoads, Senior Operations Manager, whose
18 business address is 12725 W. Indian School Road, Suite D-101, Avondale, AZ 85392.
19 Mr. Rhoads' telephone number is (623) 298-4824. He is also the on-site manager for
20 Liberty Litchfield Park. His telephone number is 480-983-1293 and business address is
21 12725 W. Indian School Road, Suite D-101, Avondale, AZ 85392.

22 10. Liberty Litchfield Park's attorneys for this application are as follows:

23 Jay L. Shapiro
24 SHAPIRO LAW FIRM
25 1819 E. Morten Avenue, Suite 280
26 Phoenix, Arizona 85020
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1 Shilpa Hunter-Patel
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5 Telephone: (623) 298-3770
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7 All case filings, correspondence, data requests and/or other requests for information should
8 be directed to both Mr. Shapiro and Ms. Hunter-Patel, as well as to Whitney Birk at
9 whitney@shapslawaz.com.

10 11. The legal description for the Extension Area is attached as **Exhibit 3**.

11 12. There are no landowners within the Extension Area who did not request an
12 extension of water and wastewater utility service by Liberty Litchfield Park. The Extension
13 Area is owned entirely by Property Owner.

14 13. The Extension Area is located on unincorporated lands within Maricopa
15 County and the City of Goodyear is the closest municipality. The cities of Goodyear,
16 Glendale, El Mirage, Litchfield Park, Phoenix, and Surprise also are located within five
17 miles of the Extension Area.

18 14. Liberty Litchfield Park currently operates both a water system and a
19 wastewater system in the area and its current water and wastewater CC&Ns boundaries are
20 adjacent to the Extension Area.

21 15. The necessary on-site water and wastewater facilities will be installed to serve
22 the project. They include a looped water system with a 12-inch main along the western
23 edge of the project and a 16-inch main along the northern and eastern boundaries. The loop
24 will be fed by two connections from Liberty Litchfield Park's existing 24-inch main in
25 Camelback Rd. The loop is designed with 14 hydrants and will provide sufficient capacity
26 for fire flow. Sewer collection system components will run primarily along the western
edge of the Property beginning at an 8-inch diameter and increasing to 10-inch then 12-inch
the further south it goes. The sewer main will be connected to an existing 12-inch gravity

1 sewer main that ultimately leads to Liberty Litchfield Park's PVWRF. The Preliminary
2 Engineering Report for Water Facilities, dated October 2019, is attached as **Exhibit 4A**,
3 and the Preliminary Engineering Report for Wastewater Facilities, dated October 2019, is
4 attached as **Exhibit 4B**.

5 16. Construction of the facilities to service the area will be completed after the
6 approval of the extension of the Certificate of Convenience and Necessity.

7 17. The estimated total cost for construction of the facilities required to provide
8 water and wastewater service to the Extension Area is attached as **Exhibit 5**. Construction
9 of the required on-site water facilities will be financed through advances in aid of
10 construction pursuant to line extension agreements. Construction of wastewater facilities
11 will be financed by the property owner. Construction of any required off-site facilities will
12 be financed using either contributions in aid of construction from hook-up fees or equity
13 provided by Liberty Litchfield Park though no off-site facilities are anticipated.

14 18. A general Statement of Financial Condition for Liberty Litchfield Park is
15 attached as **Exhibit 6**.

16 19. For service to the Extension Area, Liberty Litchfield Park will be charging its
17 existing rates and charges as approved by the Commission. A copy of Liberty Litchfield
18 Park's existing tariff schedules is attached as **Exhibit 7**.

19 20. Liberty Litchfield Park's estimated annual operating revenue and operating
20 expenses, projected income statements, projected balance sheets and plant expenditures for
21 the first five years of operation in the Extension Area are attached as **Exhibit 8**.

22 21. The Property is expected to consist of four industrial parcels approximately
23 38.5 acres each ringed by roadways. To date, none of these lots have been developed. The
24 parcels will be developed this year and are expected to be occupied within 2020 though the
25 actual timing of the building and occupancy is dependent upon market demands and is
26 subject to change.

1 22. The Property Owner's written request for extension of water and wastewater
2 utility service to the Extension Area is attached as **Exhibit 9**.

3 23. Liberty Litchfield Park is the only regulated utility providing water or
4 wastewater service within one mile of the Extension Area. Detailed maps of Liberty
5 Litchfield Park's existing water and wastewater CC&N areas and the Extension Area are
6 attached as **Exhibit 10**. Exhibit 10 includes five separate maps, including (A) Map of
7 Existing Water Service Area, (B) Map of Existing Wastewater Service Area, (C) Map of
8 Extension Area, (D) Map with Municipalities within a 5-mile Radius, and (E) Map of
9 Existing Service and Extension Area. These maps show the Extension Area and municipal
10 corporate limits that overlap with or are within five miles of the Extension Area; and the
11 Extension Area and its relationship to the service areas of other public service corporations,
12 municipalities and/or districts currently providing water or wastewater service within one
13 mile of the Extension Area, with identification of the entity providing service and each type
14 of service being provided. These maps also include:

- 15 • the boundaries of the Extension Area, with the total acreage noted.
- 16 • the land ownership boundaries within the Extension Area, with the acreage of
17 each separately owned parcel within the Extension Area noted.
- 18 • the owner of the parcel within the Extension Area.
- 19 • the location of all parcels for which a copy of a request for service has been
20 submitted.

21 These maps further show the proposed location of the principal components of the water
22 and wastewater systems planned for the Extension Area.

23 24. A copy of the form of notice to be sent to managers/administrators for
24 municipalities within a five-mile radius of the Extension Area is attached as **Exhibit 11**.

25 25. The estimated numbers of customers to be served during the first five years
26 of water and wastewater utility service to the Extension Area are shown in **Exhibit 12**.

1 26. The Property (APN 501-61-006C and APN 501-61-006B) is located within
2 Liberty Litchfield Park's approved Maricopa Association of Governments (MAG) 208
3 planning area.

4 27. If necessary, Litchfield Park will submit a franchise application to the
5 Maricopa County Board of Supervisors after the approval of this Application to include the
6 Extension Area.

7 28. Approvals to Construct will be obtained from Maricopa County
8 Environmental Services Department ("MCESD") and provided to the Commission as soon
9 as they are issued and received.

10 29. Liberty Litchfield Park will treat all wastewater generated within the
11 Extension Area at PVWRF. Treated effluent will be delivered for direct use or recharged
12 into the regional aquifer at Liberty Litchfield Park's Aquifer Replenishment Facility.

13 30. Liberty Litchfield Park's Aquifer Protection Permit issued by ADEQ is
14 attached as **Exhibit 13**.

15 31. MCESD's compliance report is attached as **Exhibit 14**. ADEQ no longer
16 issues compliance status reports directly to wastewater providers. Applicant will send a
17 written request to ADEQ asking that the agency send the most current compliance status
18 report for Liberty Litchfield Park directly to the Commission.

19 32. Liberty Litchfield Park's Water Use and Wastewater Use Data Sheets for
20 calendar year 2019 are attached as **Exhibit 15**.

21 33. Water utility service to the Extension Area will be provided by existing water
22 supply wells and the distribution main on Camelback. A non-potable, non-exempt well
23 already serving the Property is located off the Property approximately 1,250 feet to the
24 northwest. The Property is given the right to use the 438 acre-feet annual allotment
25 established by ADWR.
26

34. A notarized signature on behalf of Liberty Litchfield Park is attached as **Exhibit 16.**

35. For the reasons stated herein, Liberty Litchfield Park maintains that this Application is in the public interest and should be granted. There is a need for regulated water and wastewater utility services to the Extension Area in Maricopa County to ensure the public health, and foster orderly growth.

WHEREFORE, Liberty Litchfield Park respectfully requests the following:

A. That the Commission consider and act upon this Application as timely as possible and to schedule a hearing, if necessary, on this matter;

B. That upon completion of said hearing, the Commission enter an Order approving this Application and extending Liberty Litchfield Park's water and wastewater CC&Ns to include the Extension Area as shown on **Exhibit 3**; and,

C. That the Commission grant such other and further relief as may be appropriate under the circumstances herein.

RESPECTFULLY SUBMITTED this 15th day of May, 2020.

SHAPIRO LAW FIRM, P.C.

By: /s/ Jay L. Shapiro
Jay L. Shapiro
1819 E. Morten Avenue, Suite 280
Phoenix, Arizona 85020
jay@shapslawaz.com

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LIBERTY UTILITIES

Shilpa Hunter-Patel
Director of Legal Services
12725 W. Indian School Road, Suite D-101
Avondale, Arizona 85392
Shilpa.Hunter-Patel@LibertyUtilities.com

Attorneys for Liberty Utilities (Litchfield Park
Sewer) Corp.

ORIGINAL eFiled
this 15th day of May 2020, with:

Docket Control
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, AZ 85007

By: /s/ Whitney Birk

EXHIBITS

- 1. Corporate Information for Liberty Utilities (Litchfield Park Sewer) Corp.**
- 2. Certificate of Good Standing from the Arizona Corporation Commission**
- 3. Legal Description of Extension Area**
- 4A. Preliminary Engineering Report for Water Facilities**
- 4B. Preliminary Engineering Report for Wastewater Facilities**
- 5. Estimated Total Construction Costs and Plant Projections**
- 6. General Statement of Financial Condition**
- 7. Liberty Litchfield Park's Schedule of Rates and Charges**
- 8. Annual Operating Revenue and Expenses, Income Statements, Balance Sheets and Plant Expenditures – First Five Years**
- 9. Written Requests for Service**
- 10. Maps of Existing CC&N and Extension Area**
- 11. Form of Notice to be Sent to Municipalities within 5 Miles of Extension Area**
- 12. Estimated Number of Customers – First Five Years**
- 13. ADEQ Aquifer Protection Permit**
- 14. MCESD Compliance Report**
- 15. Water Use and Wastewater Use Data**
- 16. Notarized Signature on Behalf of Liberty Litchfield Park**

1 **EXHIBIT 1**

2
3 **CORPORATE INFORMATION**

4
5 **Applicant Proper Name:** Liberty Utilities (Litchfield Park Sewer) Corp.

6 **Applicant Address:** 12725 W. Indian School Road, Suite D-101
Avondale, AZ 85392

7 **Corporate Structure:** For-profit Chapter "C" Corporation
8 500,000 Shares authorized
7,820 shares issued on February 24, 2003

9 **Officers:** Matthew Garlick, President
10 12725 W. Indian School Road, Suite D-101
Avondale, AZ 85392

11 Todd Wiley, Treasurer and Secretary
12 12725 W. Indian School Road, Suite D-101
Avondale, AZ 85392

13 **Directors:** Ian Robertson, Director
14 354 Davis Road
Oakville, ON L6J 2X1
15 David Pasieka
16 354 Davis Road
Oakville, ON L6J 2X1
17 Dr. Brian J. Brady
18 37850 De Portola Road
Temecula, CA 92592
19 Virginia L. Grebbien
20 913 Encanada Drive
La Habra Heights, CA 90631
21 Clifford A. Neal
22 525 W. Willow Avenue
Phoenix, AZ 85029
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EXHIBIT 2

ARIZONA CORPORATION COMMISSION

CERTIFICATE OF GOOD STANDING

FOR

LIBERTY UTILITIES (LITCHFIELD PARK SEWER) CORP.

STATE OF ARIZONA



Office of the CORPORATION COMMISSION

CERTIFICATE OF GOOD STANDING

I, the undersigned Executive Director of the Arizona Corporation Commission, do hereby certify that:

LIBERTY UTILITIES (LITCHFIELD PARK WATER & SEWER) CORP.

ACC file number: 00456262

was incorporated under the laws of the State of Arizona on 09/21/1954;

That all annual reports owed to date by said corporation have been filed or delivered for filing, and all annual filing fees owed to date have been paid; and

That, according to the records of the Arizona Corporation Commission, said corporation is in good standing in the State of Arizona as of the date this Certificate is issued.

This Certificate relates only to the legal existence of the above named entity as of the date this Certificate is issued, and is not an endorsement, recommendation, or approval of the entity's condition, business activities, affairs, or practices.

IN WITNESS WHEREOF, I have hereunto set my hand, affixed the official seal of the Arizona Corporation Commission, and issued this Certificate on this date: **05/14/2020**



A handwritten signature in black ink, reading "Matthew Neubert", written over a horizontal line.

Matthew Neubert, Executive Director

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EXHIBIT 3

LEGAL DESCRIPTION OF EXTENSION AREA

CROSS DOCK - FACILITY LEGAL DESCRIPTION

The East Half of the Northwest quarter of said Section 17, and the East Half of the Southwest quarter of Section 17 except the South 65.00 feet thereof, all within Township 2 North, Range 1 West of the Gila and Salt River Meridian, Maricopa County, Arizona, being more particularly described as follows:

BEGINNING at a found aluminum cap stamped RLS 36563 dated 2003 accepted as the North quarter corner of said Section 17, from which a found aluminum cap stamped 8902, accepted as the Northeast corner thereof bears South 89°45'57" East, 2598.03 feet;

Thence South 00°20'44" East, 2647.58 feet along the east line of said Northwest quarter to the Center of said Section 17;

Thence South 00°20'44" East, 2580.13 feet along the east line of said Southwest quarter to the north line of the south 65.00 feet of said Southwest quarter;

Thence North 89°29'54" West, 1323.69 feet along said north line to the west line of the East Half of said Southwest quarter;

Thence North 00°05'36" West, 2577.72 feet along said west line to the northwest corner of the East Half of said Southwest quarter;

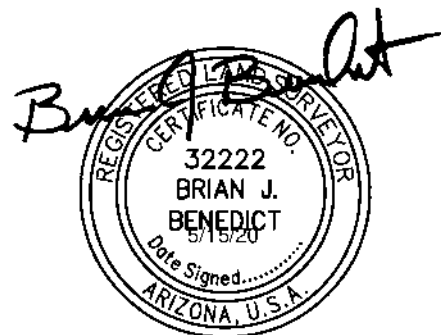
Thence North 00°06'02" West, 2643.77 feet along the west line of the East half of said Northwest quarter to the Northwest corner thereof;

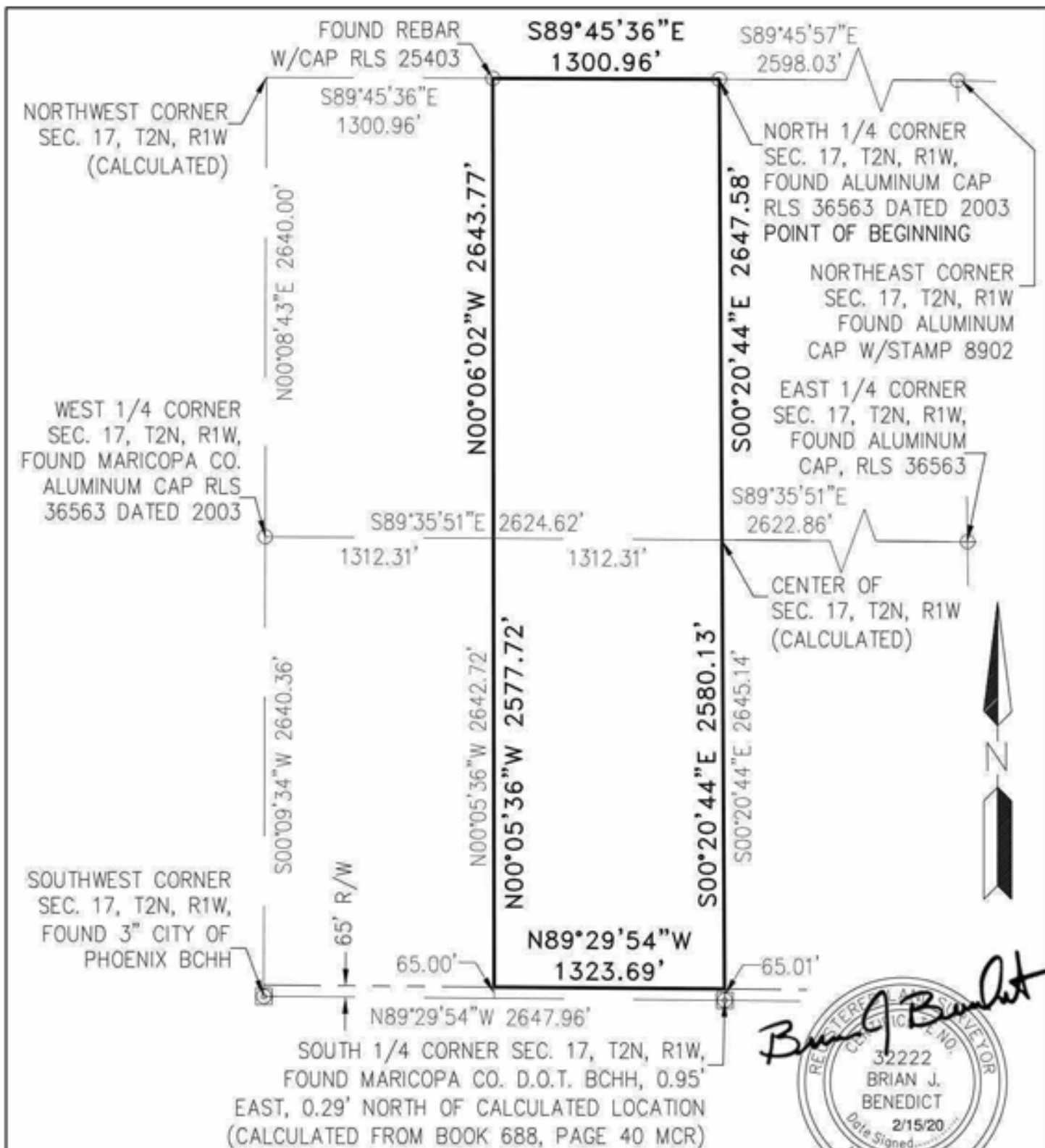
Thence South 89°45'36" East, 1300.96 feet along the north line of said East half to the **POINT OF BEGINNING**.

The above described parcel contains a computed area of 6,855,546 sq. ft. (157.3817 acres) more or less and being subject to any easements, restrictions, rights-of-way of record or otherwise.

The description shown hereon is not to be used to violate any subdivision regulation of the state, county and/or municipality or any land division restrictions.

Prepared by: HILGARTWILSON, LLC
2141 E. Highland Avenue, Suite 250
Phoenix, AZ 85016
Project No. 2018
Date: May 2020





Brian J. Benedict

REGISTERED SURVEYOR
 32222
 BRIAN J. BENEDICT
 Date Signed 2/15/20
 ARIZONA, U.S.A.

BCHH = BRASS CAP IN HAND HOLE
 R/W = RIGHT OF WAY
 MCR = MARICOPA COUNTY RECORDS

PROJ.NO.:	2018	CROSS-DOCK FACILITY BOUNDARY EXHIBIT LITCHFIELD PARK, ARIZONA	 HILGARTWILSON 2141 E. HIGHLAND AVE., STE. 250 PHOENIX, AZ 85016 P: 602.490.0535 / F: 602.368.2436
DATE:	MAY 2020		
SCALE:	N.T.S.		
DRAWN BY:	JHVD	EXHIBIT	
CHECKED BY:	BJB		

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EXHIBIT 4 A

PRELIMINARY ENGINEERING REPORT

FOR WATER FACILITIES



PRELIMINARY ENGINEERING REPORT FOR *FALCON GOLF WATER SERVICE AREA*

MARICOPA COUNTY, ARIZONA

Prepared For:



12725 West Indian School Road, Suite D101
Avondale, Arizona 85392
Phone: (623) 935-9367
Fax: (623) 935-1020

Prepared By:

HILGARTWILSON, LLC
2141 East Highland Avenue, Suite 250
Phoenix, AZ 85016
Phone: (602) 490-0535
Fax: (602) 368-2436



October 2019
HW Project No. 2018

PRELIMINARY ENGINEERING REPORT FOR FALCON GOLF WATER SERVICE AREA

TABLE OF CONTENTS

	Page
1.0 INTRODUCTION.....	1
1.1. Background and Project Location.....	1
1.2. General Description.....	1
1.3. Purpose of Report.....	1
2.0 DESIGN CRITERIA.....	1
2.1. Liberty Utilities 2014 Maricopa County Development Guide.....	1
3.0 WATER DEMANDS.....	2
3.1. Land Use.....	2
3.2. Water Demand Calculations.....	3
4.0 EXISTING WATER SYSTEM INFRASTRUCTURE.....	4
4.1. Water Distribution System.....	4
4.2. Water Supply and Treatment.....	4
5.0 PROPOSED WATER SYSTEM INFRASTRUCTURE.....	4
5.1. Proposed Water System Improvements.....	4
6.0 PHASING.....	5
6.1. Water System Phasing.....	5
7.0 ENGINEER'S OPINION OF PROBABLE COSTS.....	5
7.1. Engineer's Opinion of Probable Costs.....	5
8.0 HYDRAULIC MODEL AND RESULTS.....	6
8.1. Design Methodology.....	6
8.2. Model Results.....	6
9.0 CONCLUSION.....	7
10.0 REFERENCES.....	7



LIST OF FIGURES

Fig 1: Vicinity Map	Appendix A
Fig 2: 1 Mile Vicinity Map	Appendix A
Fig 3: Municipality Vicinity Map	Appendix A
Fig 4: Conceptual Land Use Plan.....	Appendix A
Fig 5: Water System Improvements	Appendix A
Fig 6: Flow Test Pump Curve	Appendix C

LIST OF TABLES

1. Water System Design Criteria	2
2. Parcel Information	3
3. Land Use.....	3
4. Water Demand Summary.....	3
5. Phasing Summary	5
6. Commercial/Industrial Customer Connection Projections.....	5
7. Summary of Opinion of Probable Costs.....	6
8. Hydraulic Model Results.....	7
B.1 Water Demand Calculations.....	Appendix B

LIST OF APPENDICES

- A. Figures
- B. Tables
- C. Hydrant Flow Test Results
- D. Engineer's Opinion of Probable Costs
- E. Hydraulic Model Results

1.0 INTRODUCTION

1.1 Background and Project Location

Liberty Utilities is currently applying for a Certificate of Convenience and Necessity (CC&N) for Falcon Golf (The Project) water service area, located within Maricopa County. Falcon Golf consists of approximately 157 acres of Section 17 of Township 2 North, Range 1 West of the Gila and Salt River Meridian. Falcon Golf is generally bound by Luke Air Force Base on the north, Camelback Road on the south, undeveloped land on the east, and the Arizona Motorsports Park on the west.

Figure 1 in Appendix A presents a vicinity map of the proposed water service expansion area.

1.2 General Description

The Project area is currently owned by one property owner, SCM Clearwater LLLP/ETAL. At build-out, the Project is planned to be developed as four industrial parcels consisting of up to 154 net acres. A conceptual site plan is shown in Figure 4 of Appendix A.

The Project site is currently developed as a golf course with portions being turf and other portions being desert. Along the west side of the property is a parking lot, club house and maintenance area. The site is generally flat sloping slightly to the southeast at approximately 0.2%

1.3 Purpose of Report

The purpose of this Preliminary Engineering Report is to identify and evaluate the proposed onsite and offsite water infrastructure for serving each of the parcels within the Falcon Golf area. The water analysis discussed in this report is in accordance with criteria used in Liberty's 2014 *Maricopa County Development Guide* (Liberty 2014). This Preliminary Engineering Report discusses the anticipated water demands and identifies water main sizes and alignments based on the proposed land uses, discusses phasing and anticipated improvement costs, and presents results from a hydraulic model of the proposed water system improvements.

2.0 DESIGN CRITERIA

2.1 Liberty Utilities 2014 Maricopa County Development Guide

The proposed water distribution system infrastructure for the Falcon Golf service area has been prepared and evaluated consistent with the design criteria used in the identified in Liberty Utilities 2014 *Developer & Engineering Guide* (Liberty 2014). These criteria are summarized in Table 1.

TABLE 1 WATER SYSTEM DESIGN CRITERIA			
Category		Value	Unit
Population Density			
	Single-family Residential	3.2	capita/DU
Average Day Demand			
	Residential (Single Family)	150	gpcd
	Business Park / Industrial	1,700	gpcd
Peaking Factors			
	Maximum Day Demand = 1.8 x Average Day Demand		
	Peak Hour Demand = 3.0 x Average Day Demand		
Minimum Pressure			
	Average Day and Maximum Day	55	psi
	Peak Hour	40	psi
	Maximum Day plus Fire Flow	20	psi
Maximum Pressure ²			
	All Scenarios	90	psi
Velocity			
	Maximum for Diameters < 16-inch	10	fps
	Maximum for Diameters ≥ 16-inch	5	fps
Maximum Headloss			
	Diameters < 16-inch	10	ft/1000-ft
	Diameters ≥ 16-inch	8	ft/1000-ft
Hazen-Williams Coefficient = 130			
Fire Flow			
	Required Fire Flow	4000	gpm
	Fire Flow Duration	4	hours
Notes:			
1. Design criteria based on the Liberty Utilities Development Guide 2014.			
2. Structures experiencing pressures greater than 80 psi will require an individual PRV.			

3.0 WATER DEMANDS

3.1 Land Use

Falcon Golf is owned by one property owner and is currently comprised of two Assessor parcels that will require water service for approximately 154 acres of industrial development. Current parcel data from the Maricopa County Assessor's website, including landowner, acreage, and designated zoning, are summarized in Table 2. Figure 1 in Appendix A provides a map showing the location of the Project, with information on assessor's parcel numbers, parcel ownership, and parcel areas.

TABLE 2 PARCEL INFORMATION				
Assessor's Parcel Number (APN)	Owner	Zoning	Parcel Area (S.F.)	Parcel Area (ac)
501-61-006C	SCM CLEARWATER LLP/ETAL	RU-43	3,441,240	79.00
501-61-006B	SCM CLEARWATER LLP/ETAL	RU-43	3,398,987	78.03
Total			6,840,227	157.03

Once developed, the Project will consist of a net area of 154 acres to be developed in Parcels A, B, C, and D. Table 3 below shows the anticipated land use and density for the Project at build-out.

TABLE 3 LAND USE		
Phase	Land Use	Net Area (ac)
Parcel A	Industrial	38.8
Parcel B	Industrial	38.3
Parcel C	Industrial	38.2
Parcel D	Industrial	38.7
Total	-	154.0

3.2 Water Demand Calculations

Anticipated average day, maximum day, and peak hour water demands were calculated based on the land uses identified in Table 3, the land plan presented in Figure 4 in Appendix A, and the design criteria listed in Table 1. A summary of the total water demands is presented in Table 4. Table B.1 in Appendix B provides detailed water demand calculations for the parcels.

TABLE 4 WATER DEMAND SUMMARY						
Property	Average Day Demand		Maximum Day Demand		Peak Hour Demand	
	gpm	gpd	gpm	gpd	gpm	gpd
Falcon Golf	182	261,768	327	471,182	545	785,303

4.0 EXISTING WATER SYSTEM INFRASTRUCTURE

4.1 Water Distribution System

There is an existing 24-inch DIP water main adjacent to the site within Camelback Road. Two existing 8-inch water stubs are provided to the Project off of the 24-inch main. One ends approximately 50 feet north of the existing right-of-way on 152nd Avenue and Camelback Road. Another stub is located approximately 575 feet east of this intersection.

4.2 Water Supply and Treatment

A non-exempt well (55-624174) is located in the west half of the northwest quarter of Section 17, Township 2 North, Range 1 West as established in the groundwater right and well share and access agreement. While the well is not within the boundaries of the Project site, it is understood that the Project site is given the right to use the 438 acre-feet annual (390,762 gpd) groundwater allotment established by the Arizona Department of Water Resources which exceeds the projected average day demand of the Project. Based on information from ADWR, the well was initially drilled in 1980 to a depth of 1,400 feet and has a 16-inch diameter steel casing. The well is listed as having a maximum pumping capacity of 1,650 gpm and a depth to water of 350 feet. If, during design, it is determined that this well will be used to supply water to the site, the well water quality information will need to be evaluated as the site develops to determine if any treatment is required.

5.0 PROPOSED WATER SYSTEM INFRASTRUCTURE

5.1 Proposed Water System Improvements

Based on discussions with Liberty staff, it is understood that the Falcon Golf service area will be served by existing water storage and pumping facilities, as well as the existing 24-inch main within Camelback Road along the Project's southern boundary. Two tie-ins will be made to this offsite main to provide a looped water system for the Project.

Internally, the Project will be served by a looped network of onsite 12-inch and 16-inch water mains with fire hydrants placed at requisite spacing. A proposed 16-inch water main will extend along the eastern and northern boundaries of the Project, a proposed 12-inch water main will extend along the western boundary of the Project, and three 12-inch water mains will be installed connecting the 16-inch and 12-inch water mains along each parcel boundary. The proposed onsite water mains will connect to the existing 24-inch water main with a 16-inch connection at the southeast property corner and a 12-inch connection at the southwest corner.

6.0 PHASING

6.1 Water System Phasing

The water system infrastructure for Falcon Golf is currently planned to be constructed in a single phase. The onsite water mains that extend through the Project to the existing 24-inch main Camelback Road will be installed at one time and will be sized for build-out conditions. Construction of the onsite water infrastructure is anticipated to begin around the second quarter of 2020, and will be completed by the end of 2020. Table 5 summarizes the phasing schedule and equivalent population for the Project. Table 6 shows the anticipated number of customer connections that will be served over the first five years following the completion of the onsite water infrastructure.

TABLE 5 PHASING SUMMARY					
Phase	Land Use	Net Acres	Equivalent Population	Anticipated Water System Construction Start	Anticipated Water System Construction Completion
1	Industrial	154	1,746	Q2 2020	Q4 2020

TABLE 6 COMMERCIAL/INDUSTRIAL CUSTOMER CONNECTION PROJECTIONS					
Projections	Year 1 (2020)	Year 2 (2021)	Year 3 (2022)	Year 4 (2023)	Year 5 (2024)
New Customer Connections	4	0	0	0	0
Cumulative Customer Connections	4	4	4	4	4

7.0 ENGINEER'S OPINION OF PROBABLE COSTS

7.1 Engineer's Opinion of Probable Costs

Detailed opinions of probable costs have been prepared for the water system improvements the Falcon Golf water service area. These opinions of costs are provided in Appendix D. Table 7 below presents a summary of the onsite water costs associated with the Project. It is anticipated that the construction costs of the onsite water facilities listed in Table 7 will be financed through advances in aid of construction, which will be subject to refund from Liberty Utilities to the developer per Arizona Administrative Code R14-2-406.D.

TABLE 7 SUMMARY OF OPINION OF PROBABLE COSTS					
Parcel	Anticipated Water Facilities Construction Start	Anticipated Water Facilities Construction Completion	Total Construction Cost	Total Soft Cost	Total Cost
Falcon Golf	Q2 - 2020	Q4 - 2020	\$1,725,801.00	\$351,200.50	\$2,077,001.50
TOTAL			\$1,725,801.00	\$351,200.50	\$2,077,001.50

8.0 HYDRAULIC MODEL AND RESULTS

8.1 Design Methodology

The proposed water system for the Falcon Golf service area was modeled using WaterCAD V8i by Bentley Systems, Inc. Five scenarios were modeled: average day, maximum day, peak hour, residual fire flow during maximum day conditions, and available fire flow during maximum day conditions. A residual fire flow analysis applies an industrial fire flow to each corresponding junction in the system to confirm the system's ability to meet the minimum pressure and maximum velocity requirements while providing the required fire flow during maximum day conditions. The available fire flow analysis estimates the maximum flow available at each junction while maintaining the minimum allowable residual pressure throughout the proposed system during maximum day conditions.

The proposed water system layout modeled for the Falcon Golf water service area at buildout is shown in Figure 5 in Appendix A. For the hydraulic model, a reservoir and pump was placed at the location of a fire hydrant west of the intersection of 152nd Avenue and Camelback Road, where EJ Flow Tests recently completed a hydrant flow test (see Appendix C). A pump curve based on the hydrant flow data was used to establish the boundary condition for the system. This pump curve is included in Appendix C.

8.2 Model Results

Detailed hydraulic model results for the proposed water system are provided in Appendix E. A summary of the results is given below in Table 8. As shown in the table and results, pressures throughout the modeled area remain between 49 psi and 56 psi for average day, maximum day, and peak hour conditions, which are within Liberty's pressure requirements (see Table 1). Velocities and head losses for all pipes similarly remain below their respective maximum allowable limits specified in Table 1. Furthermore, the fire flow analysis shows that the proposed system can adequately provide the required fire flow of 4,000 gpm to the industrial areas in the Falcon Golf water service area while maintaining a residual pressure of at least 20 psi and a maximum velocity of less than 10 feet per second.

TABLE 8 HYDRAULIC MODEL RESULTS						
	Average Day		Maximum Day		Peak Hour	
	Value	Location	Value	Location	Value	Location
Minimum Pressure (psi)	49	J-72, J-73	49	Multiple	49	Multiple
Maximum Pressure (psi)	56	+3, J-59	56	+3, J-59	55	+3, J-59
Maximum Velocity (fps)	0.13	P-113	0.33	P-113	0.56	P-113
Maximum Headloss (ft/1,000 ft of pipe)	0.017	P-113	0.048	P-113	0.124	P-113
Residual Fire Flow Analysis (at Maximum Day)						
	Value	Location		Fire Flow Location and Flow		
Minimum Residual Pressure (psi)	23	Multiple		Multiple @ 4,000 gpm		
Maximum Velocity (fps)	9.28	P-113		J-92 @ 4,000 gpm		
Available Fire Flow Analysis (at Maximum Day)						
	Value		Location			
Minimum Available Fire Flow – Industrial (gpm)		4,220.50		J-76		

9.0 CONCLUSION

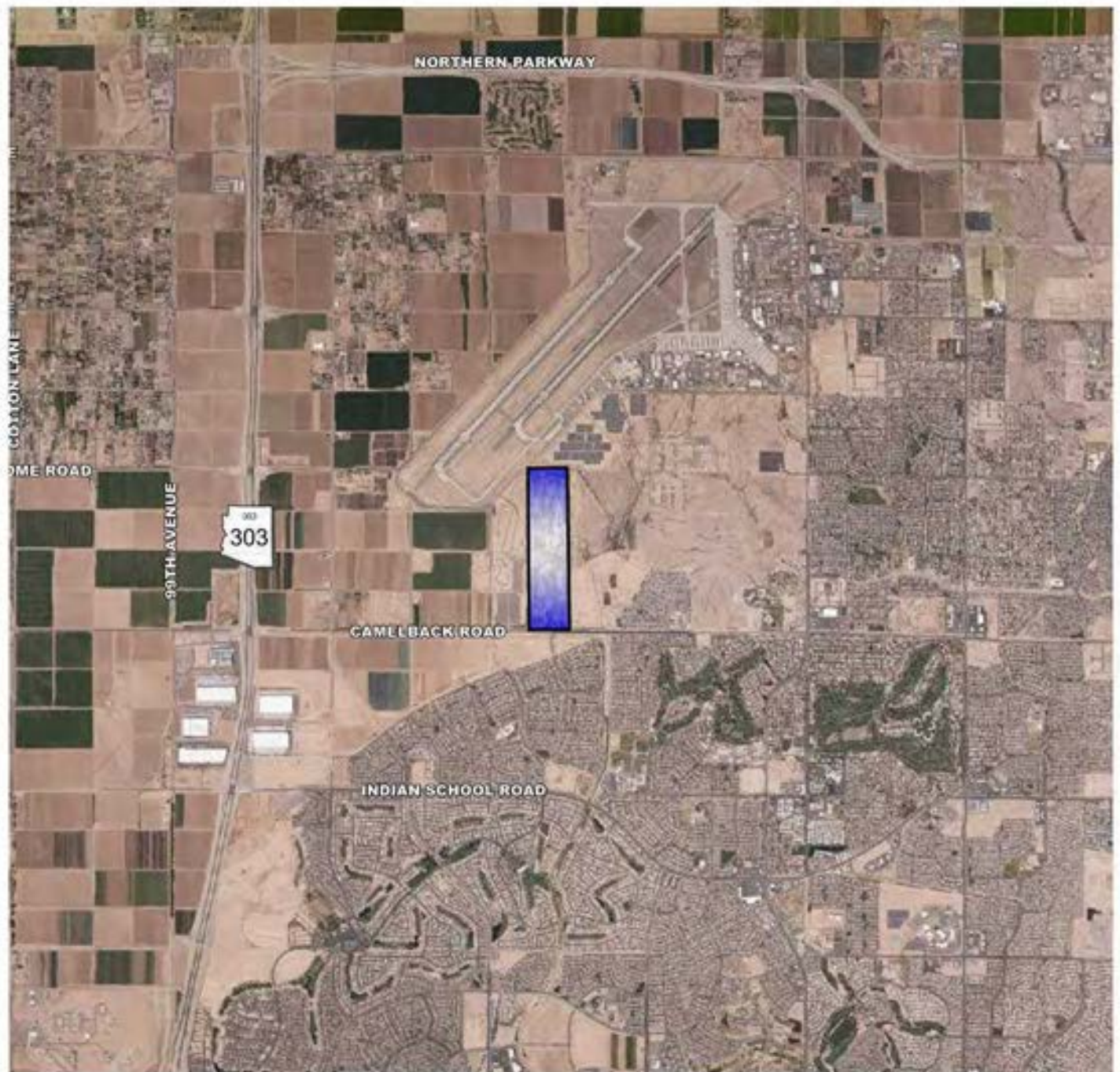
As discussed in this Preliminary Engineering Report, the Falcon Golf service area consists of two assessors parcels located near Luke Air Force Base, which are currently owned by a single landowner and which will be developed into four industrial parcels. Water service for the Project will be provided by the offsite and onsite water improvements discussed herein. The water system improvements will be developed in one phase. This report summarized the anticipated water demands from each of the parcels and identified water main alignments and sizing to serve the Project. An Engineer's Opinion of Probable Construction Cost was developed based on the most recent land plan for the Project and the proposed onsite and offsite water system improvements. The land plan and water main alignments and sizing are subject to change prior to final development, and additional analysis should be completed for the onsite water infrastructure as each parcel develops. Finally, the hydraulic model demonstrated that the Falcon Golf service area can be adequately served by the existing and proposed system of 12-inch and 16-inch water mains.

10.0 REFERENCES

Liberty Utilities (2014). *2014 Maricopa County Development Guide*. January 2014. Avondale, AZ.

APPENDIX A

FIGURES



LEGEND

PROJECT LOCATION



ASSESSOR PARCEL INFORMATION

APN: 501-61-006C
OWNER: SCM CLEARWATER LLLP/ETAL
OWNES: 79.00 ACRES

APN: 501-61-006B
OWNER: SCM CLEARWATER LLLP/ETAL
AREA: 78.03 ACRES

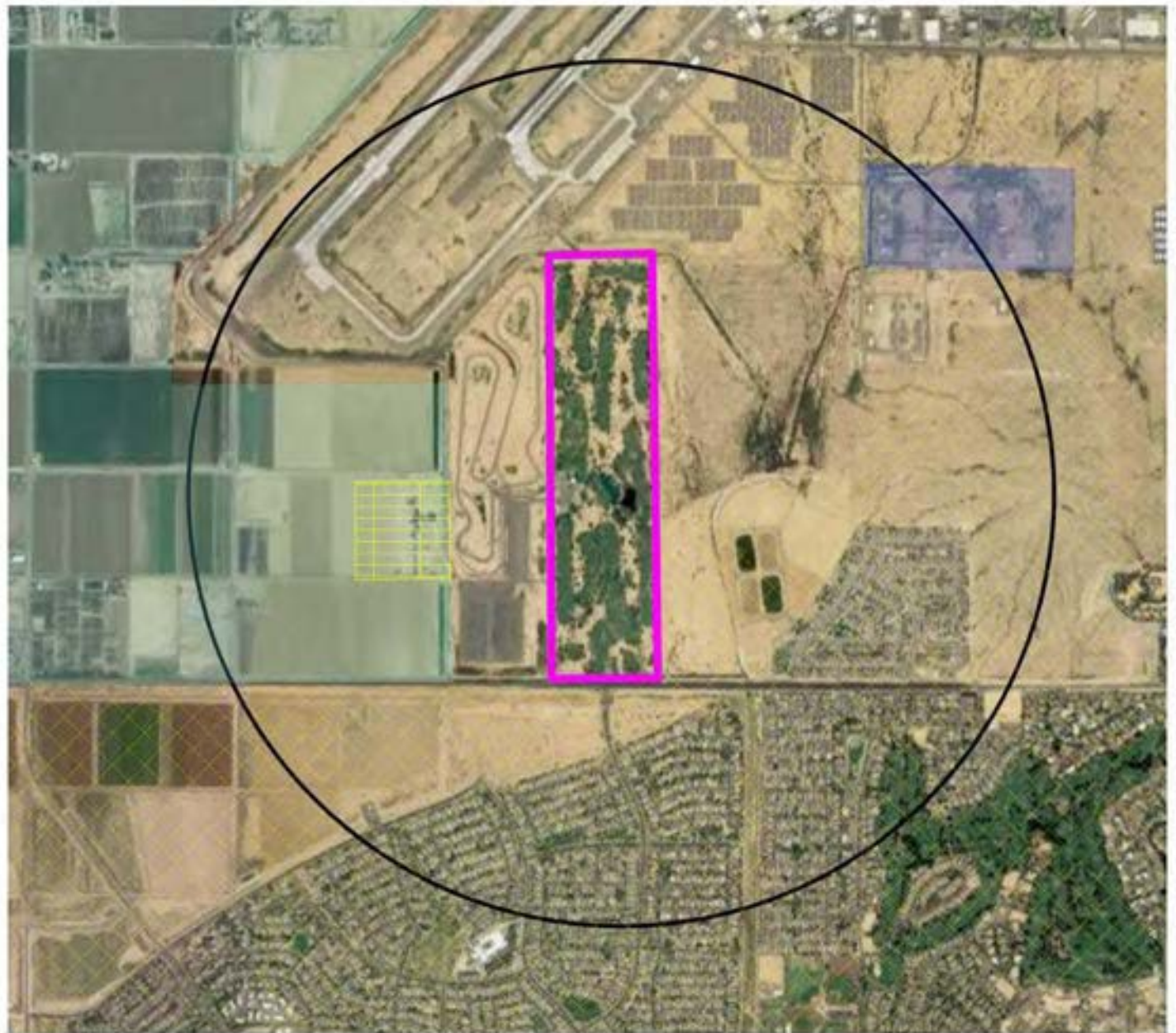


PROJ.NO.: 2018
DATE: AUG 2019
SCALE: 1" = 5000'
DRAWN BY: MM
CHECKED BY: DJ

FALCON GOLF
152ND AVE & CAMELBACK RD
MARICOPA COUNTY, AZ

FIG. 1 VICINTIY MAP

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436



LEGEND

CC&N EXPANSION AREA (FALCON GOLF)



VALLEY UTILITIES WATER COMPANY



LITCHFIELD PARK SERVICE COMPANY (LIBERTY UTILITIES)



ADAMAN MUTUAL WATER COMPANY



EPCOR WATER (SEWER ONLY)



2000 1000 0 2000



SCALE

FEET



PROJ.NO.: 2018

DATE: AUG 2019

SCALE: 1" = 2000'

DRAWN BY: MM

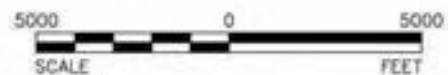
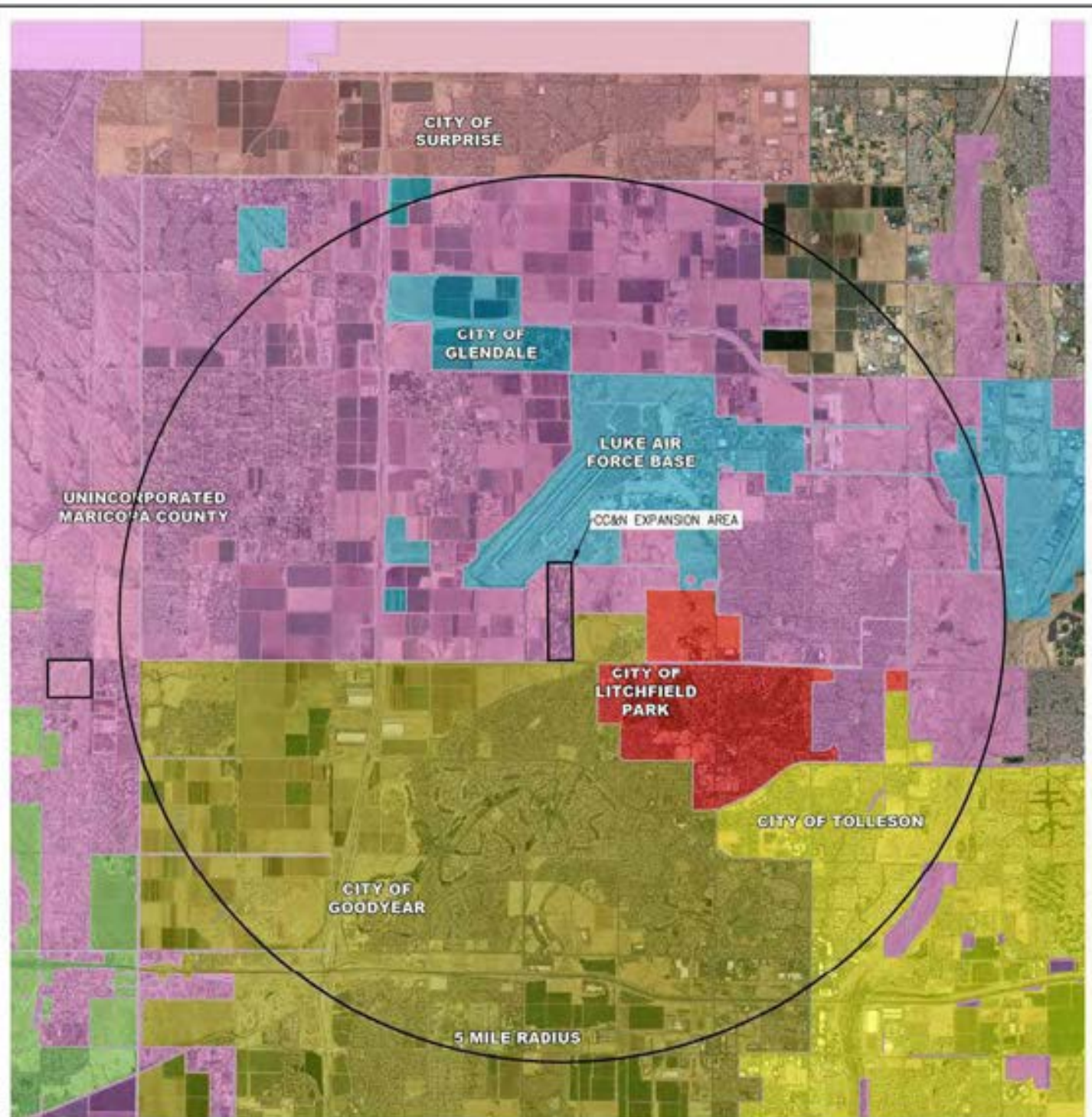
CHECKED BY: DJ

FALCON GOLF

152ND AVENUE AND CAMELBACK ROAD
MARICOPA COUNTY, ARIZONA

FIG. 2: WATER & SEWER SERVICE VICINITY MAP

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436



PROJ.NO.: 2018
 DATE: AUG 2019
 SCALE: 1" = 8000'
 DRAWN BY: MM
 CHECKED BY: DJ

FALCON GOLF
 152ND AVENUE AND CAMELBACK ROAD
 MARICOPA COUNTY, ARIZONA

FIG. 3: MUNICIPALITY VICINITY MAP


HILGARTWILSON
 2141 E. HIGHLAND AVE., STE. 250
 PHOENIX, AZ 85016
 P: 602.490.0535 / F: 602.368.2436



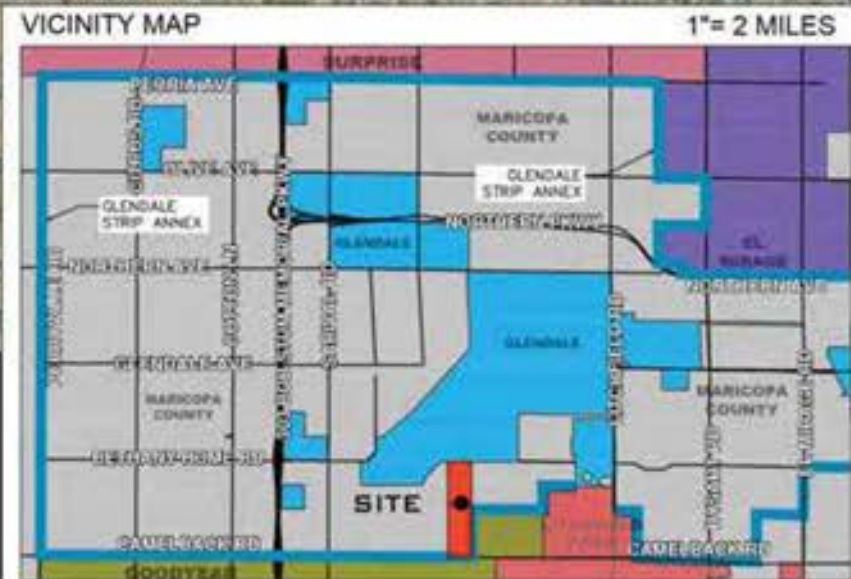
FALCON GOLF COURSE	SITE DATA CHART	
	Parcel	Area (Ac.) (Gross)
	A	38.8
	B	38.3
	C	38.2
	D	38.7
	LS/Retention	3.4
	TOTAL PROJECT	157.4

*Project Area excludes Camelback ROW (65')

152ND AVE

LEGEND

- PROJECT BOUNDARY
- FULL MOVEMENT ACCESS
- LIMITED MOVEMENT ACCESS





LEGEND

- FALCON GOLF BOUNDARY
- EXISTING WATER LINE
- PROPOSED WATER LINE
- JUNCTION
- RESERVOIR
- PUMP

PIPE DIAMETER LEGEND

- 12.0 INCHES
- 16.0 INCHES
- 24.0 INCHES

NOTE
EXISTING TRANSMISSION WATER LINES WITHIN
CAMELBACK ROAD AND PERRYVILLE ROAD ARE NOT
SHOWN FOR CLARITY.

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436

FALCON GOLF
152ND AVENUE AND CAMELBACK ROAD
MARICOPA COUNTY, ARIZONA
FIG 5 WATER SYSTEM IMPROVEMENTS

PROJ. NO.: 2018
DATE: OCT 2019
SCALE: 1"=800'
DRAWN BY: MM
CHECKED BY: DJ

APPENDIX B

TABLES

Table B.1 - Water Demand Calculations

Project: Falcon Golf

Prepared By: Michael MacDonald

October 2019



Parcel ID	Property	Gross Area (ft ²)	Gross Area (ac)	Land Use	Estimated Building Area	Average Day Demand		Maximum Day Demand		Peak Hour Demand	
						(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)
A	Falcon Golf	1,691,823	38.84	Industrial	507,547	66,026	45.9	118,847	82.5	198,078	137.6
B	Falcon Golf	1,666,346	38.25	Industrial	499,904	65,032	45.2	117,057	81.3	195,096	135.5
C	Falcon Golf	1,663,860	38.20	Industrial	499,158	64,935	45.1	116,883	81.2	194,805	135.3
D	Falcon Golf	1,685,379	38.69	Industrial	505,614	65,775	45.7	118,394	82.2	197,324	137.0
GRAND TOTAL		6,707,409	153.98	-	2,012,223	261,768	181.8	471,182	327.2	785,303	545.3

Notes:

⁽¹⁾ Demand and peaking factors based on Liberty Water's 2014 Developer & Engineering Guide.

⁽²⁾ Fire Flow demands based on International Fire Code 2012 and anticipated building square footage, if available. Assumes 50% reduction for approved fire sprinkler system with a minimum fire flow of 4,000 gpm for 4 hours.

Demand Factors:⁽¹⁾

Warehouse: 30 gpd/1000 sq ft
Business Park / Industrial: 1,700 gpd/acre

Peaking Factors:

Maximum Day Demand: 1.8 x Average Day Demand
Peak Hour Demand: 3.0 x Average Day Demand

APPENDIX C

HYDRANT FLOW TEST RESULTS



Flow Test Summary

Project Name: EJFT 19177
Project Address: 15234 W Camelback Rd, Litchfield Park, AZ 85340
Date of Flow Test: 2019-08-06
Time of Flow Test: 7:55 AM
Data Reliable Until: 2020-02-06
Conducted By: Eder Cueva & Tayler Lynch (EJ Flow Tests) 602.999.7637
Witnessed By: Ruben Lugo Jr. (Liberty Utilities) 602.653.9274
City Forces Contacted: Liberty Utilities (602.653.9274)

Raw Flow Test Data

Static Pressure: 54.0 PSI
Residual Pressure: 44.0 PSI
Flowing GPM: 3,423
GPM @ 20 PSI: 6,628

Data with a 10 % Safety Factor

Static Pressure: 48.6 PSI
Residual Pressure: 38.6 PSI
Flowing GPM: 3,423
GPM @ 20 PSI: 6,037

Hydrant F₁

Pitot Pressure (1): 27 PSI
Coefficient of Discharge (1): 0.9
Hydrant Orifice Diameter (1): 2.5 inches
Pitot Pressure (2): 27 PSI
Coefficient of Discharge (2): 0.9
Hydrant Orifice Diameter (2): 2.5 inches

Hydrant F₂

Pitot Pressure (1): 25 PSI
Coefficient of Discharge (1): 0.9
Hydrant Orifice Diameter (1): 2.5 inches
Pitot Pressure (2): 25 PSI
Coefficient of Discharge (2): 0.9
Hydrant Orifice Diameter (2): 2.5 inches



Static-Residual Hydrant

Flow Hydrant

Distance Between F₁ and R
962 ft (measured linearly)

Static-Residual Elevation
1052 ft (above sea level)

Flow Hydrant (F₁) Elevation
1053 ft (above sea level)

Elevation & distance values are approximate

EJ Flow Tests, LLC

21505 North 78th Ave. | Suite 130 | Peoria, Arizona 85382 | (602) 999-7637 | www.ejengineering.com
John L. Echeverri | NICET Level IV 078493 SME | C-16 FP Contractor ROC 271705 AZ | NFPA CFPS 1915
www.flowtestsummary.com

Static-Residual Hydrant



Flow Hydrant (only hydrant F1 shown for clarity)



Approximate Project Site



Water Supply Curve N^{1.85} Graph

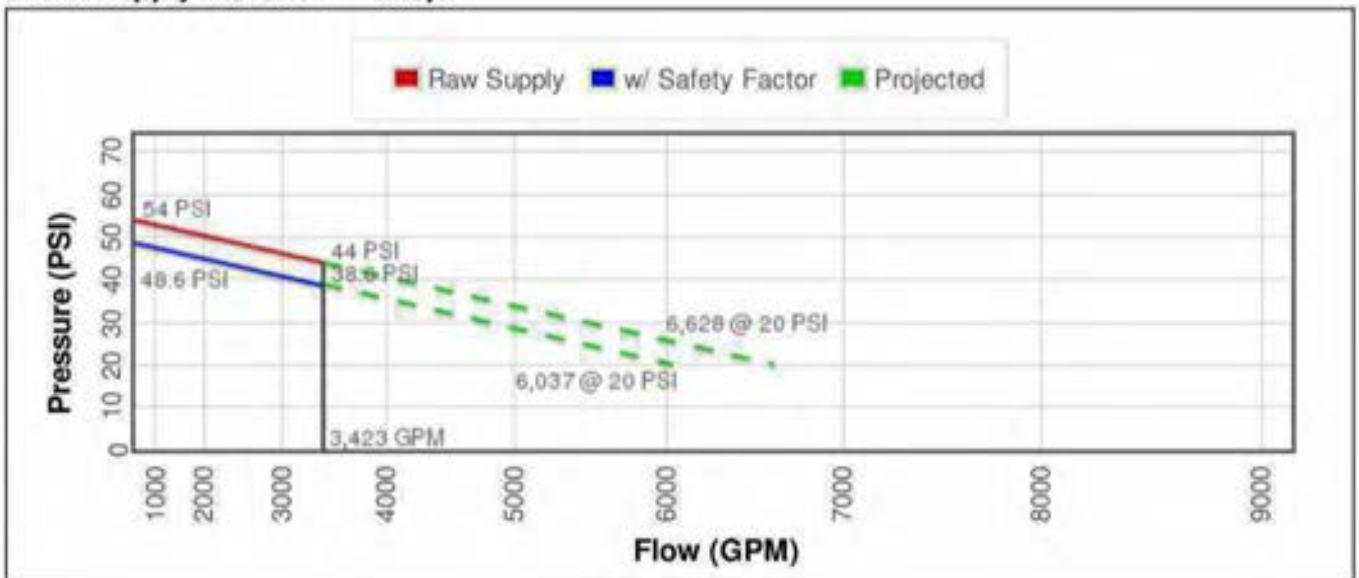


FIGURE 6 - FLOW TEST PUMP CURVE

Falcon Golf Service Area - Camelback Road and 152nd Avenue

Litchfield Park, Arizona

Flow Test Date: August 6, 2019 (7:55 AM)



Fire Flow Test Results

Static Pressure at Test Hydrant (psi)	54
Residual Pressure at Test Hydrant (psi)	44
Total Discharge at Flowed Hydrants, Q_f (gpm)	3,423

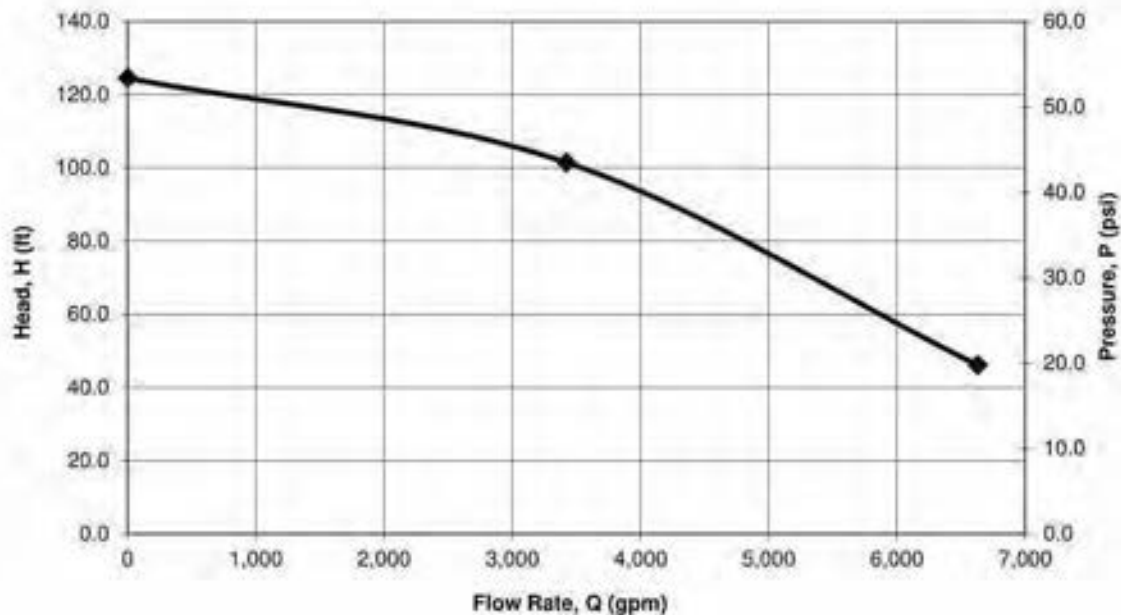
Calculations

Desired Fire Flow Residual Pressure (psi)	20.0
Pressure Drop During Test, h_f (psi)	10.0
Pressure Drop During Test (%)	19%
Pressure Drop at Desired Residual Pressure, h_r (psi)	34.0
Available Flow at Desired Residual Pressure, Q_r (gpm)	6,628

Pump Curve

Q (gpm)	P (psi)	H (ft)
0	54.0	124.5
3,423	44.0	101.5
6,628	20.0	46.1

Pump Curve Extrapolated from Fire Flow Test Results



APPENDIX D

ENGINEER'S OPINION OF PROBABLE COSTS

Engineer's Opinion of Probable Costs
Falcon Golf Water Service Area
Water System Improvements
October 2019



Phase 1 Onsite Improvements

Item	Quantity	Units	Unit Price	Total Cost
Construction Costs				
Waterline 12" PVC	9,200	LF	\$ 75.00	\$ 690,000.00
Waterline 16" PVC	6,531	LF	\$ 110.00	\$ 718,410.00
24"x12" Tapping Sleeve & Valve	1	EA	\$ 12,000.00	\$ 12,000.00
24"x16" Tapping Sleeve & Valve	1	EA	\$ 14,000.00	\$ 14,000.00
12" Gate Valve, Valve Box, and Fittings	10	EA	\$ 2,750.00	\$ 27,500.00
16" Gate Valve, Valve Box, and Fittings	4	EA	\$ 7,500.00	\$ 30,000.00
Fire Hydrant	14	EA	\$ 5,500.00	\$ 77,000.00
Subtotal - Construction Costs				\$ 1,568,910.00
Construction Contingency	10%			\$ 156,891.00
Total - Construction Costs				\$ 1,725,801.00
Soft Costs				
Engineering Design	8% of construction cost =		\$	138,064.08
Permitting	3.5% of construction cost =		\$	60,403.04
Materials Testing	1.5% of construction cost =		\$	25,887.02
Construction Staking	2.5% of construction cost =		\$	43,145.03
Construction Management	3.0% of construction cost =		\$	51,774.03
Subtotal - Soft Costs			\$	319,273.19
Soft Costs Contingency	10%		\$	31,927.32
Total - Soft Costs			\$	351,200.50
TOTAL - Phase 1 Onsite Improvements				\$ 2,077,001.50

APPENDIX E

HYDRAULIC MODEL RESULTS

AVERAGE DAY DEMAND RESULTS

MAXIMUM DAY DEMAND RESULTS

PEAK HOUR DEMAND RESULTS

MAXIMUM DAY + FIRE FLOW RESULTS (RESIDUAL)

MAXIMUM DAY + FIRE FLOW RESULTS (AVAILABLE)

AVERAGE DAY DEMAND RESULTS

JUNCTION TABLE
PIPE TABLE
PUMP TABLE
RESERVOIR TABLE

19-0719_Falcon Golf Water
Model.wtg
FlexTable: Junction Table

Active Scenario: Average Day
Demand

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
+3	1,053.00	0.00	1,181.50	56
J-58	1,057.00	0.00	1,181.50	54
J-59	1,053.00	0.00	1,181.50	56
J-60	1,056.00	6.27	1,181.49	54
J-61	1,057.00	6.27	1,181.49	54
J-62	1,058.00	6.27	1,181.48	53
J-63	1,060.00	6.27	1,181.48	53
J-64	1,061.00	6.27	1,181.48	52
J-65	1,061.00	6.27	1,181.48	52
J-66	1,062.00	6.27	1,181.48	52
J-67	1,063.00	6.27	1,181.48	51
J-68	1,063.00	6.27	1,181.47	51
J-69	1,065.00	6.27	1,181.47	50
J-70	1,066.00	6.27	1,181.47	50
J-71	1,066.00	6.27	1,181.47	50
J-72	1,068.00	6.27	1,181.47	49
J-73	1,068.00	6.27	1,181.47	49
J-76	1,067.00	6.27	1,181.47	50
J-77	1,066.00	6.27	1,181.47	50
J-78	1,065.00	6.27	1,181.47	50
J-79	1,064.00	6.27	1,181.47	51
J-80	1,063.00	6.27	1,181.47	51
J-81	1,062.00	6.27	1,181.47	52
J-82	1,062.00	6.27	1,181.48	52
J-83	1,061.00	6.27	1,181.48	52
J-84	1,060.00	6.27	1,181.48	53
J-85	1,059.00	6.27	1,181.48	53
J-86	1,058.00	6.27	1,181.48	53
J-87	1,058.00	6.27	1,181.49	53
J-88	1,057.00	6.27	1,181.49	54
J-89	1,057.00	0.00	1,181.50	54
J-91	1,057.00	6.27	1,181.49	54
J-92	1,057.00	6.27	1,181.50	54
J-93	1,062.00	0.00	1,181.48	52
J-96	1,064.48	0.00	1,181.47	51
J-97	1,058.00	0.00	1,181.48	53

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-72	86	42.0	130.0	181.78	0.04	0.000
P-74	88	42.0	130.0	181.78	0.04	0.001
P-76	653	24.0	130.0	116.33	0.08	0.002
P-78	400	16.0	130.0	103.80	0.17	0.009
P-79	536	16.0	130.0	97.53	0.16	0.008
P-80	264	16.0	130.0	86.03	0.14	0.007
P-81	400	16.0	130.0	79.76	0.13	0.005
P-82	400	16.0	130.0	73.50	0.12	0.005
P-83	283	16.0	130.0	67.23	0.11	0.004
P-84	517	16.0	130.0	53.93	0.09	0.003
P-85	400	16.0	130.0	47.66	0.08	0.002
P-86	400	16.0	130.0	41.40	0.07	0.002
P-87	400	16.0	130.0	29.19	0.05	0.001
P-88	400	16.0	130.0	22.93	0.04	0.001
P-89	400	16.0	130.0	16.66	0.03	0.000
P-90	663	16.0	130.0	10.39	0.02	0.000
P-94	400	12.0	130.0	2.15	0.01	0.000
P-95	400	12.0	130.0	8.42	0.02	0.000
P-96	400	12.0	130.0	14.68	0.04	0.001
P-97	400	12.0	130.0	15.02	0.04	0.001
P-98	400	12.0	130.0	21.29	0.06	0.002
P-99	517	12.0	130.0	27.56	0.08	0.003
P-100	283	12.0	130.0	26.80	0.08	0.003
P-101	400	12.0	130.0	33.07	0.09	0.005
P-102	400	12.0	130.0	39.33	0.11	0.006
P-103	256	12.0	130.0	45.60	0.13	0.008
P-104	544	12.0	130.0	46.65	0.13	0.009
P-105	400	12.0	130.0	52.91	0.15	0.011
P-107	673	24.0	130.0	116.33	0.08	0.002
P-109	140	16.0	130.0	116.33	0.19	0.011
P-110	260	16.0	130.0	110.06	0.18	0.011
P-112	239	12.0	130.0	59.18	0.17	0.013
P-113	161	12.0	130.0	65.45	0.19	0.017
P-116	660	12.0	130.0	7.03	0.02	0.000
P-117	661	12.0	130.0	7.03	0.02	0.000
P-119	669	16.0	130.0	4.12	0.01	0.000
P-120	589	24.0	130.0	181.78	0.13	0.004
P-127	642	12.0	130.0	5.93	0.02	0.000
P-128	689	12.0	130.0	5.93	0.02	0.000
P-129	684	12.0	130.0	5.23	0.01	0.000
P-130	644	12.0	130.0	5.23	0.01	0.000

19-0719_Falcon Golf Water
Model.wtg
FlexTable: Pump Table

Active Scenario: Average Day
Demand

Label	Elevation (ft)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-2	1,057.00	1,057.10	1,181.50	181.78	124.40

19-0719_Falcon Golf Water
Model.wtg
FlexTable: Reservoir Table

Active Scenario: Average Day
Demand

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-2	1,057.10	181.78	1,057.10

MAXIMUM DAY DEMAND RESULTS

JUNCTION TABLE
PIPE TABLE
PUMP TABLE
RESERVOIR TABLE

19-0719_Falcon Golf Water
Model.wtg
FlexTable: Junction Table

Active Scenario: Max Day

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
+3	1,053.00	0.00	1,181.30	56
J-58	1,057.00	0.00	1,181.31	54
J-59	1,053.00	0.00	1,181.29	56
J-60	1,056.00	11.28	1,181.28	54
J-61	1,057.00	11.28	1,181.27	54
J-62	1,058.00	11.28	1,181.25	53
J-63	1,060.00	11.28	1,181.25	52
J-64	1,061.00	11.28	1,181.24	52
J-65	1,061.00	11.28	1,181.24	52
J-66	1,062.00	11.28	1,181.23	52
J-67	1,063.00	11.28	1,181.23	51
J-68	1,063.00	11.28	1,181.23	51
J-69	1,065.00	11.28	1,181.22	50
J-70	1,066.00	11.28	1,181.22	50
J-71	1,066.00	11.28	1,181.22	50
J-72	1,068.00	11.28	1,181.22	49
J-73	1,068.00	11.28	1,181.22	49
J-76	1,067.00	11.28	1,181.22	49
J-77	1,066.00	11.28	1,181.22	50
J-78	1,065.00	11.28	1,181.22	50
J-79	1,064.00	11.28	1,181.22	51
J-80	1,063.00	11.28	1,181.22	51
J-81	1,062.00	11.28	1,181.23	52
J-82	1,062.00	11.28	1,181.23	52
J-83	1,061.00	11.28	1,181.23	52
J-84	1,060.00	11.28	1,181.24	52
J-85	1,059.00	11.28	1,181.25	53
J-86	1,058.00	11.28	1,181.25	53
J-87	1,058.00	11.28	1,181.27	53
J-88	1,057.00	11.28	1,181.28	54
J-89	1,057.00	0.00	1,181.30	54
J-91	1,057.00	11.28	1,181.29	54
J-92	1,057.00	11.28	1,181.29	54
J-93	1,062.00	0.00	1,181.23	52
J-96	1,064.48	0.00	1,181.22	51
J-97	1,058.00	0.00	1,181.25	53

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-72	86	42.0	130.0	327.21	0.08	0.001
P-74	88	42.0	130.0	327.21	0.08	0.001
P-76	653	24.0	130.0	209.40	0.15	0.005
P-78	400	16.0	130.0	186.83	0.30	0.028
P-79	536	16.0	130.0	175.55	0.28	0.025
P-80	264	16.0	130.0	154.86	0.25	0.019
P-81	400	16.0	130.0	143.58	0.23	0.017
P-82	400	16.0	130.0	132.29	0.21	0.015
P-83	283	16.0	130.0	121.01	0.19	0.013
P-84	517	16.0	130.0	97.08	0.15	0.008
P-85	400	16.0	130.0	85.80	0.14	0.006
P-86	400	16.0	130.0	74.51	0.12	0.005
P-87	400	16.0	130.0	52.55	0.08	0.003
P-88	400	16.0	130.0	41.27	0.07	0.002
P-89	400	16.0	130.0	29.98	0.05	0.001
P-90	663	16.0	130.0	18.70	0.03	0.000
P-94	400	12.0	130.0	3.87	0.01	0.000
P-95	400	12.0	130.0	15.15	0.04	0.001
P-96	400	12.0	130.0	26.43	0.07	0.003
P-97	400	12.0	130.0	27.03	0.08	0.003
P-98	400	12.0	130.0	38.32	0.11	0.006
P-99	517	12.0	130.0	49.60	0.14	0.010
P-100	283	12.0	130.0	48.23	0.14	0.009
P-101	400	12.0	130.0	59.52	0.17	0.014
P-102	400	12.0	130.0	70.80	0.20	0.019
P-103	256	12.0	130.0	82.08	0.23	0.025
P-104	544	12.0	130.0	83.96	0.24	0.026
P-105	400	12.0	130.0	95.24	0.27	0.033
P-107	673	24.0	130.0	209.40	0.15	0.005
P-109	140	16.0	130.0	209.40	0.33	0.034
P-110	260	16.0	130.0	198.11	0.32	0.032
P-112	239	12.0	130.0	106.53	0.30	0.040
P-113	161	12.0	130.0	117.81	0.33	0.048
P-116	660	12.0	130.0	12.65	0.04	0.001
P-117	661	12.0	130.0	12.65	0.04	0.001
P-119	669	16.0	130.0	7.42	0.01	0.000
P-120	589	24.0	130.0	327.21	0.23	0.011
P-127	642	12.0	130.0	10.68	0.03	0.001
P-128	689	12.0	130.0	10.68	0.03	0.001
P-129	684	12.0	130.0	9.41	0.03	0.000
P-130	644	12.0	130.0	9.41	0.03	0.000

19-0719_Falcon Golf Water

Model.wtg

Active Scenario: Max Day

FlexTable: Pump Table

Label	Elevation (ft)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-2	1,057.00	1,057.10	1,181.31	327.21	124.21

19-0719_Falcon Golf Water

Model.wtg

10/10/2019

Falcon Golf
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Page 1 of 1

19-0719_Falcon Golf Water

Model.wtg

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-2	1,057.10	327.21	1,057.10

Active Scenario: Max Day

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10/10/2019

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Page 1 of 1

PEAK HOUR DEMAND RESULTS

JUNCTION TABLE
PIPE TABLE
PUMP TABLE
RESERVOIR TABLE

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Model.wtg

FlexTable: Junction Table

Active Scenario: Peak Hour

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
+3	1,053.00	0.00	1,180.81	55
J-58	1,057.00	0.00	1,180.84	54
J-59	1,053.00	0.00	1,180.81	55
J-60	1,056.00	18.81	1,180.77	54
J-61	1,057.00	18.81	1,180.74	54
J-62	1,058.00	18.81	1,180.71	53
J-63	1,060.00	18.81	1,180.70	52
J-64	1,061.00	18.81	1,180.68	52
J-65	1,061.00	18.81	1,180.66	52
J-66	1,062.00	18.81	1,180.65	51
J-67	1,063.00	18.81	1,180.64	51
J-68	1,063.00	18.81	1,180.64	51
J-69	1,065.00	18.81	1,180.63	50
J-70	1,066.00	18.81	1,180.63	50
J-71	1,066.00	18.81	1,180.63	50
J-72	1,068.00	18.81	1,180.63	49
J-73	1,068.00	18.81	1,180.62	49
J-76	1,067.00	18.81	1,180.62	49
J-77	1,066.00	18.81	1,180.62	50
J-78	1,065.00	18.81	1,180.63	50
J-79	1,064.00	18.81	1,180.63	50
J-80	1,063.00	18.81	1,180.63	51
J-81	1,062.00	18.81	1,180.64	51
J-82	1,062.00	18.81	1,180.65	51
J-83	1,061.00	18.81	1,180.66	52
J-84	1,060.00	18.81	1,180.67	52
J-85	1,059.00	18.81	1,180.69	53
J-86	1,058.00	18.81	1,180.71	53
J-87	1,058.00	18.81	1,180.74	53
J-88	1,057.00	18.81	1,180.78	54
J-89	1,057.00	0.00	1,180.82	54
J-91	1,057.00	18.81	1,180.79	54
J-92	1,057.00	18.81	1,180.80	54
J-93	1,062.00	0.00	1,180.65	51
J-96	1,064.48	0.00	1,180.63	50
J-97	1,058.00	0.00	1,180.71	53

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10/10/2019

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Page 1 of 1

Label	Length (Scaled) (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-72	86	42.0	130.0	545.35	0.13	0.001
P-74	88	42.0	130.0	545.35	0.13	0.003
P-76	653	24.0	130.0	349.00	0.25	0.012
P-78	400	16.0	130.0	311.39	0.50	0.072
P-79	536	16.0	130.0	292.58	0.47	0.064
P-80	264	16.0	130.0	258.10	0.41	0.050
P-81	400	16.0	130.0	239.29	0.38	0.044
P-82	400	16.0	130.0	220.49	0.35	0.038
P-83	283	16.0	130.0	201.68	0.32	0.032
P-84	517	16.0	130.0	161.80	0.26	0.021
P-85	400	16.0	130.0	142.99	0.23	0.017
P-86	400	16.0	130.0	124.19	0.20	0.013
P-87	400	16.0	130.0	87.58	0.14	0.007
P-88	400	16.0	130.0	68.78	0.11	0.004
P-89	400	16.0	130.0	49.97	0.08	0.002
P-90	663	16.0	130.0	31.17	0.05	0.001
P-94	400	12.0	130.0	6.44	0.02	0.000
P-95	400	12.0	130.0	25.25	0.07	0.003
P-96	400	12.0	130.0	44.05	0.12	0.008
P-97	400	12.0	130.0	45.06	0.13	0.008
P-98	400	12.0	130.0	63.86	0.18	0.016
P-99	517	12.0	130.0	82.67	0.23	0.025
P-100	283	12.0	130.0	80.39	0.23	0.024
P-101	400	12.0	130.0	99.20	0.28	0.035
P-102	400	12.0	130.0	118.00	0.33	0.049
P-103	256	12.0	130.0	136.81	0.39	0.064
P-104	544	12.0	130.0	139.94	0.40	0.066
P-105	400	12.0	130.0	158.74	0.45	0.084
P-107	673	24.0	130.0	349.00	0.25	0.012
P-109	140	16.0	130.0	349.00	0.56	0.089
P-110	260	16.0	130.0	330.19	0.53	0.080
P-112	239	12.0	130.0	177.55	0.50	0.103
P-113	161	12.0	130.0	196.35	0.56	0.124
P-116	660	12.0	130.0	21.08	0.06	0.002
P-117	661	12.0	130.0	21.08	0.06	0.002
P-119	669	16.0	130.0	12.36	0.02	0.000
P-120	589	24.0	130.0	545.35	0.39	0.028
P-127	642	12.0	130.0	17.80	0.05	0.001
P-128	689	12.0	130.0	17.80	0.05	0.002
P-129	684	12.0	130.0	15.68	0.04	0.001
P-130	644	12.0	130.0	15.68	0.04	0.001

19-0719_Falcon Golf Water

Model.wtg

Active Scenario: Peak Hour

FlexTable: Pump Table

Label	Elevation (ft)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-2	1,057.00	1,057.10	1,180.84	545.35	123.74

19-0719_Falcon Golf Water

Model.wtg

10/10/2019

Falcon Golf
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Page 1 of 1

19-0719_Falcon Golf Water

Model.wtg

FlexTable: Reservoir Table

Active Scenario: Peak Hour

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-2	1,057.10	545.35	1,057.10

19-0719_Falcon Golf Water

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10/10/2019

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Page 1 of 1

FIRE FLOW RESULTS

MAXIMUM DAY + FIRE FLOW (RESIDUAL)
MAXIMUM DAY + FIRE FLOW (AVAILABLE)

Label	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Fire Flow (Available) (gpm)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)
+3	4,000.00	4,000.00	40	33	J-73	4,000.00	40	33	P-120	3.07
J-58	4,000.00	4,000.00	39	34	J-73	4,000.00	39	34	P-74	1.00
J-59	4,000.00	4,000.00	39	33	J-73	4,000.00	39	33	P-120	3.07
J-60	4,000.00	4,011.28	37	32	J-72	4,000.00	37	32	P-109	5.49
J-61	4,000.00	4,011.28	36	31	J-72	4,000.00	36	31	P-109	5.14
J-62	4,000.00	4,011.28	35	30	J-72	4,000.00	35	30	P-109	4.80
J-63	4,000.00	4,011.28	33	30	J-72	4,000.00	33	30	P-80	5.54
J-64	4,000.00	4,011.28	32	29	J-72	4,000.00	32	29	P-80	5.21
J-65	4,000.00	4,011.28	31	28	J-72	4,000.00	31	28	P-80	4.95
J-66	4,000.00	4,011.28	30	28	J-72	4,000.00	30	28	P-80	4.78
J-67	4,000.00	4,011.28	29	27	J-72	4,000.00	29	27	P-84	5.23
J-68	4,000.00	4,011.28	28	26	J-72	4,000.00	28	26	P-84	4.94
J-69	4,000.00	4,011.28	27	26	J-72	4,000.00	27	26	P-84	4.69
J-70	4,000.00	4,011.28	25	25	J-72	4,000.00	25	25	P-87	5.20
J-71	4,000.00	4,011.28	25	24	J-72	4,000.00	25	24	P-87	4.87
J-72	4,000.00	4,011.28	23	24	J-73	4,000.00	23	24	P-87	4.59
J-73	4,000.00	4,011.28	23	23	J-76	4,000.00	23	23	P-109	4.59
J-76	4,000.00	4,011.28	23	23	J-73	4,000.00	23	23	P-96	4.68
J-77	4,000.00	4,011.28	23	24	J-76	4,000.00	23	24	P-96	5.85
J-78	4,000.00	4,011.28	24	24	J-77	4,000.00	24	24	P-96	6.98
J-79	4,000.00	4,011.28	26	26	J-73	4,000.00	26	26	P-99	4.87
J-80	4,000.00	4,011.28	26	26	J-73	4,000.00	26	26	P-99	5.90
J-81	4,000.00	4,011.28	27	27	J-73	4,000.00	27	27	P-99	6.91
J-82	4,000.00	4,011.28	29	28	J-73	4,000.00	29	28	P-103	5.00
J-83	4,000.00	4,011.28	29	29	J-73	4,000.00	29	29	P-100	5.73
J-84	4,000.00	4,011.28	30	29	J-73	4,000.00	30	29	P-103	6.69
J-85	4,000.00	4,011.28	32	30	J-73	4,000.00	32	30	P-103	7.80
J-86	4,000.00	4,011.28	33	31	J-73	4,000.00	33	31	P-113	5.23
J-87	4,000.00	4,011.28	33	32	J-73	4,000.00	33	32	P-113	6.74
J-88	4,000.00	4,011.28	35	32	J-73	4,000.00	35	32	P-113	8.07

Label	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Fire Flow (Available) (gpm)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)
J-89	4,000.00	4,000.00	38	33	J-73	4,000.00	38	33	P-120	3.07
J-91	4,000.00	4,011.28	37	33	J-72	4,000.00	37	33	P-109	5.80
J-92	4,000.00	4,011.28	37	33	J-73	4,000.00	37	33	P-113	9.28
J-93	4,000.00	4,000.00	28	28	J-73	4,000.00	28	28	P-116	6.03
J-96	4,000.00	4,000.00	24	26	J-73	4,000.00	24	26	P-128	5.92
J-97	4,000.00	4,000.00	32	31	J-73	4,000.00	32	31	P-130	6.06

Label	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Fire Flow (Available) (gpm)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)
+3	4,000.00	4,000.00	40	33	J-73	5,647.57	26	20	P-120	4.24
J-58	4,000.00	4,000.00	39	34	J-73	5,775.55	25	20	P-74	1.41
J-59	4,000.00	4,000.00	39	33	J-73	5,599.96	26	20	P-120	4.20
J-60	4,000.00	4,011.28	37	32	J-72	5,435.06	25	20	P-109	7.33
J-61	4,000.00	4,011.28	36	31	J-72	5,305.49	24	20	P-109	6.71
J-62	4,000.00	4,011.28	35	30	J-72	5,159.90	24	20	P-109	6.09
J-63	4,000.00	4,011.28	33	30	J-72	5,070.54	23	20	P-80	6.95
J-64	4,000.00	4,011.28	32	29	J-72	4,957.36	23	20	P-80	6.40
J-65	4,000.00	4,011.28	31	28	J-72	4,861.14	23	20	P-80	5.96
J-66	4,000.00	4,011.28	30	28	J-72	4,800.07	22	20	P-80	5.69
J-67	4,000.00	4,011.28	29	27	J-72	4,667.94	22	20	P-84	6.08
J-68	4,000.00	4,011.28	28	26	J-72	4,585.08	22	20	P-84	5.64
J-69	4,000.00	4,011.28	27	26	J-72	4,512.22	21	20	P-84	5.27
J-70	4,000.00	4,011.28	25	25	J-72	4,425.23	21	20	P-87	5.74
J-71	4,000.00	4,011.28	25	24	J-72	4,352.91	21	20	P-87	5.29
J-72	4,000.00	4,011.28	23	24	J-73	4,289.28	20	20	P-87	4.92
J-73	4,000.00	4,011.28	23	23	J-76	4,226.01	20	21	P-80	4.83
J-76	4,000.00	4,011.28	23	23	J-73	4,220.50	20	21	P-96	4.94
J-77	4,000.00	4,011.28	23	24	J-76	4,222.45	20	21	P-96	6.17
J-78	4,000.00	4,011.28	24	24	J-77	4,307.31	20	21	P-96	7.51
J-79	4,000.00	4,011.28	26	26	J-73	4,499.30	20	20	P-99	5.46
J-80	4,000.00	4,011.28	26	26	J-73	4,504.82	20	21	P-99	6.63
J-81	4,000.00	4,011.28	27	27	J-73	4,595.80	20	21	P-99	7.93
J-82	4,000.00	4,011.28	29	28	J-73	4,831.33	20	20	P-103	5.99
J-83	4,000.00	4,011.28	29	29	J-73	4,841.44	20	21	P-100	6.96
J-84	4,000.00	4,011.28	30	29	J-73	4,919.02	20	21	P-103	8.19
J-85	4,000.00	4,011.28	32	30	J-73	5,112.49	20	20	P-103	9.92
J-86	4,000.00	4,011.28	33	31	J-73	5,204.07	22	20	P-113	6.72
J-87	4,000.00	4,011.28	33	32	J-73	5,367.03	20	20	P-113	8.96
J-88	4,000.00	4,011.28	35	32	J-73	4,985.58	26	25	P-113	10.00

Fire Flow Node FlexTable: Fire Flow Report

Label	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Fire Flow (Available) (gpm)	Pressure (Calculated Residual) (psi)	Pressure (Calculated System Lower Limit) (psi)	Pipe w/ Maximum Velocity	Velocity of Maximum Pipe (ft/s)
J-89	4,000.00	4,000.00	38	33	J-73	5,705.95	25	20	P-120	4.28
J-91	4,000.00	4,011.28	37	33	J-72	5,535.86	25	20	P-109	7.89
J-92	4,000.00	4,011.28	37	33	J-73	4,320.59	34	31	P-113	10.00
J-93	4,000.00	4,000.00	28	28	J-73	4,710.84	20	21	P-116	7.10
J-96	4,000.00	4,000.00	24	26	J-73	4,368.82	20	22	P-128	6.47
J-97	4,000.00	4,000.00	32	31	J-73	5,181.29	20	20	P-130	7.85

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EXHIBIT 4 B

PRELIMINARY ENGINEERING REPORT

FOR WASTEWATER FACILITIES



PRELIMINARY ENGINEERING REPORT
FOR
FALCON GOLF
WASTEWATER SERVICE AREA

MARICOPA COUNTY, ARIZONA

Prepared For:



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October 2019
HW Project No. 2018

PRELIMINARY ENGINEERING REPORT FOR FALCON GOLF WASTEWATER SERVICE AREA

TABLE OF CONTENTS

	Page
1.0 INTRODUCTION.....	1
1.1. Background and Project Location.....	1
1.2. General Description.....	1
1.3. Purpose of Report.....	1
2.0 DESIGN CRITERIA.....	1
2.1. Liberty Utilities 2014 Maricopa County Developer Guide	1
3.0 WASTEWATER FLOWS.....	2
3.1. Land Use.....	2
3.2. Wastewater Flow Calculations.....	3
4.0 EXISTING WASTEWATER SYSTEM INFRASTRUCTURE.....	4
4.1. Wastewater Collection System.....	4
4.2. Wastewater Treatment	4
5.0 PROPOSED WASTEWATER SYSTEM INFRASTRUCTURE	4
5.1. Proposed Wastewater System Improvements	4
6.0 PHASING	4
6.1. Wastewater System Phasing.....	4
7.0 ENGINEER'S OPINION OF PROBABLE COSTS.....	5
7.1. Opinion of Probable Costs	5
8.0 HYDRAULIC MODEL AND RESULTS.....	5
8.1. Design Methodology.....	5
8.2. Hydraulic Model Results	6
9.0 CONCLUSION	6
10.0 REFERENCES.....	6



LIST OF FIGURES

Figure 1: Vicinity Map.....	Appendix A
Figure 2: 1-Mile Vicinity Map	Appendix A
Figure 3: Municipality Vicinity Map.....	Appendix A
Figure 4: Conceptual Land Use Plan.....	Appendix A
Figure 5: Wastewater System Improvements.....	Appendix A

LIST OF TABLES

1. Wastewater System Design Criteria	2
2. Parcel Information	3
3. Land Use.....	3
4. Wastewater Flow Summary.....	3
5. Phasing Summary	5
6. Commercial/Industrial Customer Connection Projections.....	5
7. Opinion of Probable Costs Summary	5
Table B.1: Wastewater Flow Calculations.....	Appendix B

LIST OF APPENDICES

- A. Figures
- B. Wastewater Flow Calculations
- C. Engineer's Opinion of Probable Costs
- D. Hydraulic Model Results

1.0 INTRODUCTION

1.1 Background and Project Location

Liberty Utilities is currently applying for a Certificate of Convenience and Necessity (CC&N) to extend its wastewater service area to include Falcon Golf (the Project), located within unincorporated Maricopa County, Arizona. The Project is located outside Liberty's existing CC&N boundary for sewer service. Potable water service for the Project will also be provided by Liberty Utilities, as Liberty Utilities is also applying to extend its CC&N boundary for water service to include the parcel. The water preliminary engineering report is being submitted under separate cover.

Falcon Golf is generally bound by Luke Air Force Base on the north, Camelback Road on the south, undeveloped land on the east, and the Arizona Motorsports Park on the west. The Project consists of approximately 157 acres of Section 17 of Township 2 North, Range 1 West of the Gila and Salt River Meridian. Figure 1 in Appendix A presents a vicinity map of the proposed wastewater expansion area.

1.2 General Description

The Project area is currently owned by one property owner, SCM Clearwater LLLP/ETAL. At build-out, the project is planned to be developed as four industrial parcels consisting of up to 154 net acres. A conceptual site plan is shown in Figure 4 of Appendix A.

The Project site is currently developed as a golf course with portions being turf and other portions being desert. Along the west side of the property is a parking lot, club house and maintenance area. The site is generally flat sloping slightly to the southeast at approximately 0.2%

1.3 Purpose of Report

This Preliminary Engineering Report has been prepared in support of Liberty's sewer CC&N expansion application. The purpose of this report is to identify and evaluate the proposed wastewater system infrastructure for serving Falcon Golf. The analysis discussed in this report is in accordance with Liberty's 2014 *Maricopa County Development Guide* (Liberty 2014). This Preliminary Engineering Report discusses the anticipated wastewater flows for the Project at build-out, identifies sewer main sizes and alignments based on the proposed land use, discusses proposed phasing, identifies anticipated improvement costs, and presents results from a hydraulic model of the proposed wastewater system.

2.0 DESIGN CRITERIA

2.1 Liberty Utilities 2014 Maricopa County Development Guide

The proposed wastewater collection system infrastructure for Falcon Golf wastewater service area has been prepared and evaluated consistent with

the design criteria identified in Liberty's 2014 *Maricopa County Development Guide* (Liberty 2014). These criteria are summarized in Table 1 below.

TABLE 1 WASTEWATER SYSTEM DESIGN CRITERIA			
Category		Value	Unit
Population Density			
	Single-family Residential	3.2	capita/DU
Average Daily Flow			
	Residential	100	gpcd
	Industrial	1,500	gal/acre/day
Peaking Factor			
	Peak Flow	3.0 x Average Daily Flow	
System Layout			
	Sewer Depth of Cover – Trunk Lines	7.5	ft
	Sewer Depth of Cover – All Others	5.0	ft
	Minimum Pipe Diameter	8	inches
	Minimum Sewer Slope - 8" Mains	0.0033	ft/ft
	Minimum Sewer Slope - 10" Mains	0.0024	ft/ft
	Manhole Invert Drop (< 45° direction change)	0.1'	Drop across manhole
	Manhole Invert Drop (≥ 45° direction change)	0.2'	Drop across manhole
	Manhole Rim Elevation	Above 100 year floodplain	
System Performance			
	Manning's Roughness Coefficient (n)	0.013	
	Minimum Velocity – Full Flow	2.0	fps
	Minimum Velocity – Average Daily, Trunk Lines	2.0	fps
	Maximum Velocity	10.0	fps
	Sewer Capacity Ratio (d/D, max at peak hour)	0.75	
Notes:			
1. Design criteria based on the Liberty Utilities 2014 Maricopa County Development Guide.			

3.0 WASTEWATER FLOWS

3.1 Land Use

Falcon Golf is owned by one property owner and is currently comprised of two Assessor parcels that will require wastewater service for approximately 154 net acres of industrial development. Current parcel data from the Maricopa County Assessor's website, including landowner, acreage, and designated zoning, are summarized in Table 2. Figure 1 in Appendix A provides a map showing the location of the Project, with information on Assessor's parcel numbers, parcel ownership, and parcel areas.

TABLE 2 PARCEL INFORMATION				
Assessor's Parcel Number (APN)	Owner	Zoning	Parcel Area (S.F.)	Parcel Area (ac)
501-61-006C	SCM CLEARWATER LLLP/ETAL	RU-43	3,441,240	79
501-61-006B	SCM CLEARWATER LLLP/ETAL	RU-43	3,398,987	78.03
Total			6,840,227	157.03

Once developed, the Project will consist of a net area of 154 acres to be developed in Parcels A, B, C, and D. Table 3 below shows the anticipated land use and density for the Project at build-out.

TABLE 3 LAND USE		
Phase	Land Use	Net Area (ac)
Parcel A	Industrial	38.8
Parcel B	Industrial	38.3
Parcel C	Industrial	38.2
Parcel D	Industrial	38.7
Total	-	154.0

3.2 Wastewater Flow Calculations

Anticipated average daily wastewater flows and peak flows for the Project have been calculated in accordance with the design criteria listed in Table 1 and the land use and density listed in Table 3. A summary of the total wastewater flows for Falcon Golf is presented in Table 4. Table B.1 in Appendix B provides detailed wastewater flow calculations for the Project.

TABLE 4 WASTEWATER FLOW SUMMARY					
Phase	Acres	Average Daily Flow		Peak Flow	
		(gpd)	(gpm)	(gpd)	(gpm)
Parcel A	38.8	58,200	40	174,600	121
Parcel B	38.3	57,450	40	172,350	120
Parcel C	38.2	57,300	40	171,900	119
Parcel D	38.7	58,050	40	174,150	121
Total	154.0	231,000	160	693,000	481

4.0 EXISTING WASTEWATER SYSTEM INFRASTRUCTURE

4.1 Wastewater Collection System

Existing wastewater infrastructure immediately adjacent to the Project includes a 12-inch gravity sewer main along Camelback Road that flows east to 152nd Avenue, where it turns south. A 10-inch gravity sewer main flows west along Camelback Road to 152nd Avenue, where it ties into the 12-inch main from the west and flows are then routed south along 152nd Avenue. An existing 10-inch sewer stub extends north towards the Project from the manhole at the intersection of 152nd Avenue and Camelback Road.

Figure 5 in Appendix A shows the existing offsite sewer mains adjacent to the Project site.

4.2 Wastewater Treatment

Wastewater flows from the Project will be treated at Liberty's Palm Valley Reclamation Facility. This facility was recently expanded for increased treatment capacity. Based on preliminary discussions with Liberty, the Palm Valley Reclamation Facility has adequate available capacity to handle the projected flows from the Project.

5.0 PROPOSED WASTEWATER SYSTEM INFRASTRUCTURE

5.1 Proposed Wastewater System Improvements

The proposed onsite wastewater system for the Project will consist of an internal network of 8-inch, 10-inch, and 12-inch sewer mains that will route wastewater flows by gravity to the west, and then southwest ends of the Project site. Due to the location of existing manholes along the offsite main, it is anticipated that a new manhole will be installed along the 12-inch main in Camelback Road for the Project tie-in. Onsite manholes will be placed at requisite spacing throughout the Project per Liberty design criteria. Figure 5 in Appendix A shows the proposed wastewater collection system for Falcon Golf.

6.0 PHASING

6.1 Wastewater System Phasing

The wastewater system infrastructure for Falcon Golf is currently planned to be constructed in a single phase. Construction of the onsite wastewater infrastructure is anticipated to begin around the second quarter of 2020, and will be completed by the end of 2020. Table 5 summarizes the proposed construction schedule for the wastewater infrastructure. Table 6 summarizes the number of customer connections projected to connect to the proposed sewer mains once they are constructed. As shown, it is anticipated that all four parcels, each with one customer connection per parcel – will be developed at the time the onsite wastewater collection system is installed.

TABLE 5 PHASING SUMMARY				
Phase	Land Use	Net Acres	Anticipated Wastewater System Construction Start	Anticipated Wastewater System Construction Completion
1	Industrial	154	Q2 2020	Q4 2020

TABLE 6 COMMERCIAL/INDUSTRIAL CUSTOMER CONNECTION PROJECTIONS					
Projections	Year 1 (2020)	Year 2 (2021)	Year 3 (2022)	Year 4 (2023)	Year 5 (2024)
New Customer Connections	4	0	0	0	0
Cumulative Customer Connections	4	4	4	4	4

7.0 ENGINEER'S OPINION OF PROBABLE COSTS

7.1 Opinion of Probable Costs

An opinion of probable costs has been prepared for the proposed wastewater system improvements to serve Falcon Golf. Table 7 presents a summary of the costs. A more detailed breakdown of costs is provided in Appendix C. It is anticipated that construction of the wastewater system improvements for serving the Project will be financed by the property owner. No offsite improvements are anticipated to be constructed for the Project, as the downstream sewer infrastructure is already in place.

TABLE 7 OPINION OF PROBABLE COSTS SUMMARY				
Parcel	Anticipated Construction Year	Total Construction Cost	Total Soft Cost	Total Cost
A,B,C,D	2020	\$ 459,992.50	\$ 93,608.47	\$ 553,600.97
TOTAL	-	\$ 459,992.50	\$ 93,608.47	\$ 553,600.97

8.0 HYDRAULIC MODEL AND RESULTS

8.1 Design Methodology

The proposed wastewater system for Falcon Golf was modeled using SewerCAD V8i by Bentley Systems, Inc. The wastewater flows shown in Table 4 and Table B.1 of Appendix B were distributed to individual manholes throughout the onsite collection system to provide an accurate representation of average daily flows and peak flows within the system. The wastewater loading for each unit is generally applied to the next upstream manhole to account for flows that enter the system at multiple points within a

pipe segment, thus ensuring that the entire pipe segment has sufficient capacity to convey the anticipated flows.

The proposed wastewater system for Falcon Golf at build-out is shown in Figure 5 in Appendix A. The onsite collection system was designed to meet the design criteria as specified in Table 1 and as discussed herein. Pipes were designed such that the normal depth of flow within the pipe does not exceed 75 percent of the pipe diameter during peak flow conditions.

8.2 Hydraulic Model Results

The hydraulic model results show that the proposed wastewater collection system for the Project will adequately convey the projected peak flows to the outfall at the southwest boundary by gravity. This outfall represents a proposed manhole along the 12-inch offsite gravity sewer main in Camelback Road. Detailed hydraulic model results for the proposed collection system are provided in Appendix D. As shown in the results, all proposed gravity sewer mains within Falcon Golf will convey the anticipated flows with a d/D (depth/Diameter) ratio of less than 0.75, as required by Liberty Utilities. Maximum velocities in all pipes remain below 10 fps and all pipes have sufficient slope to maintain a full-flow velocity of at least 2 fps.

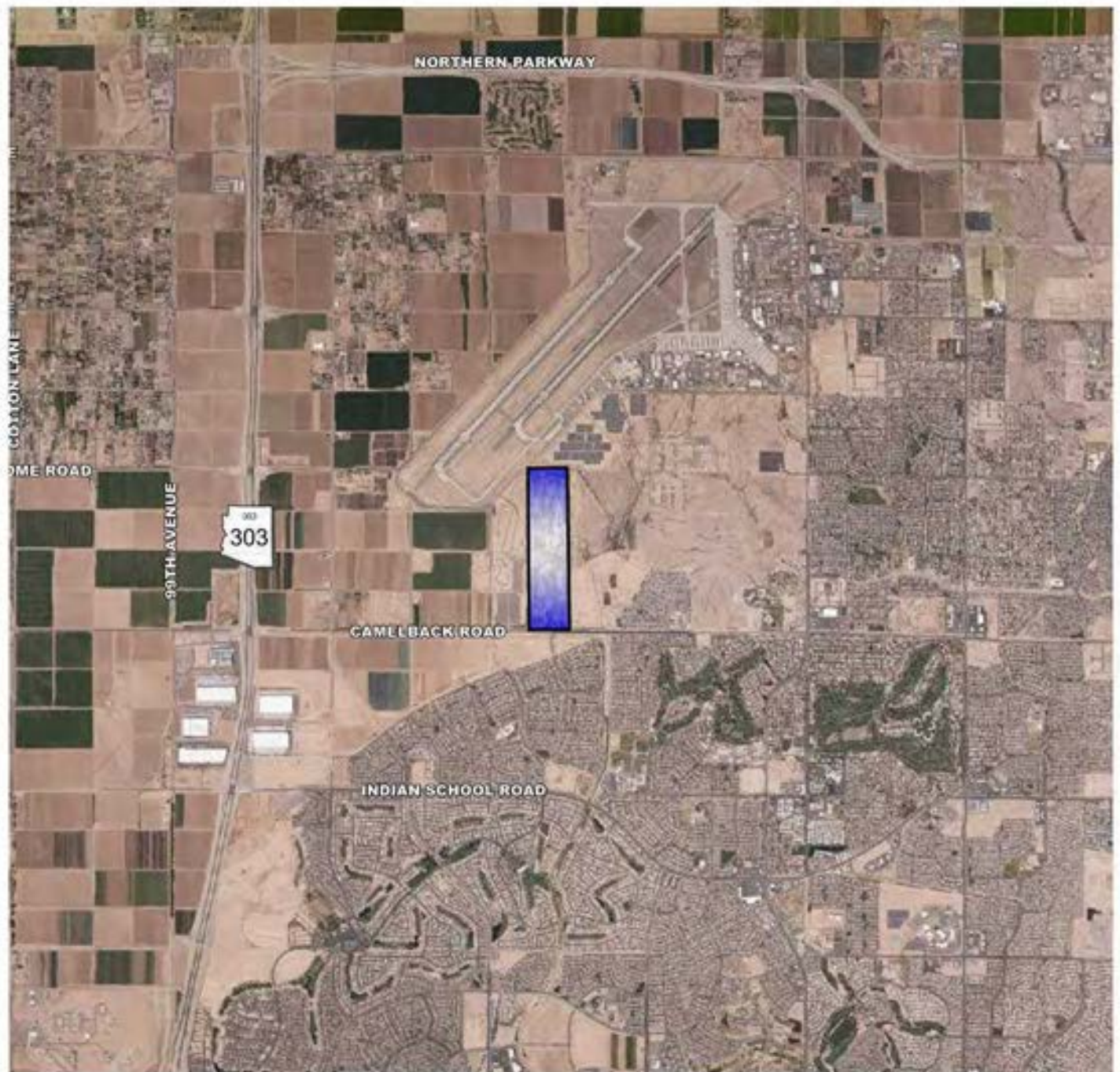
9.0 CONCLUSION

This report was prepared in support of Liberty Utilities' application for an expansion of its sewer CC&N boundary to include the Falcon Golf site. The Project site will be developed with up to 154 net acres of industrial use and the wastewater system improvements are anticipated to be completed in one phase. This report summarized the anticipated wastewater flows, proposed phasing, and sewer main alignments and sizing for the Project. An opinion of probable cost was developed for the proposed wastewater system improvements, and a hydraulic model demonstrated that Falcon Golf can be adequately served by the proposed improvements.

10.0 REFERENCES

- Liberty Utilities (2014). *2014 Maricopa County Development Guide*. January 2014. Avondale, AZ.
- Arizona Department of Environmental Quality (1978). *Minimum Requirements for Design, Submission of Plans, and Specifications of Sewage Works. Engineering Bulletin No. 11*. July 1978. Phoenix, AZ.

APPENDIX A FIGURES



LEGEND

PROJECT LOCATION



ASSESSOR PARCEL INFORMATION

APN: 501-61-006C
OWNER: SCM CLEARWATER LLLP/ETAL
OWNES: 79.00 ACRES

APN: 501-61-006B
OWNER: SCM CLEARWATER LLLP/ETAL
AREA: 78.03 ACRES

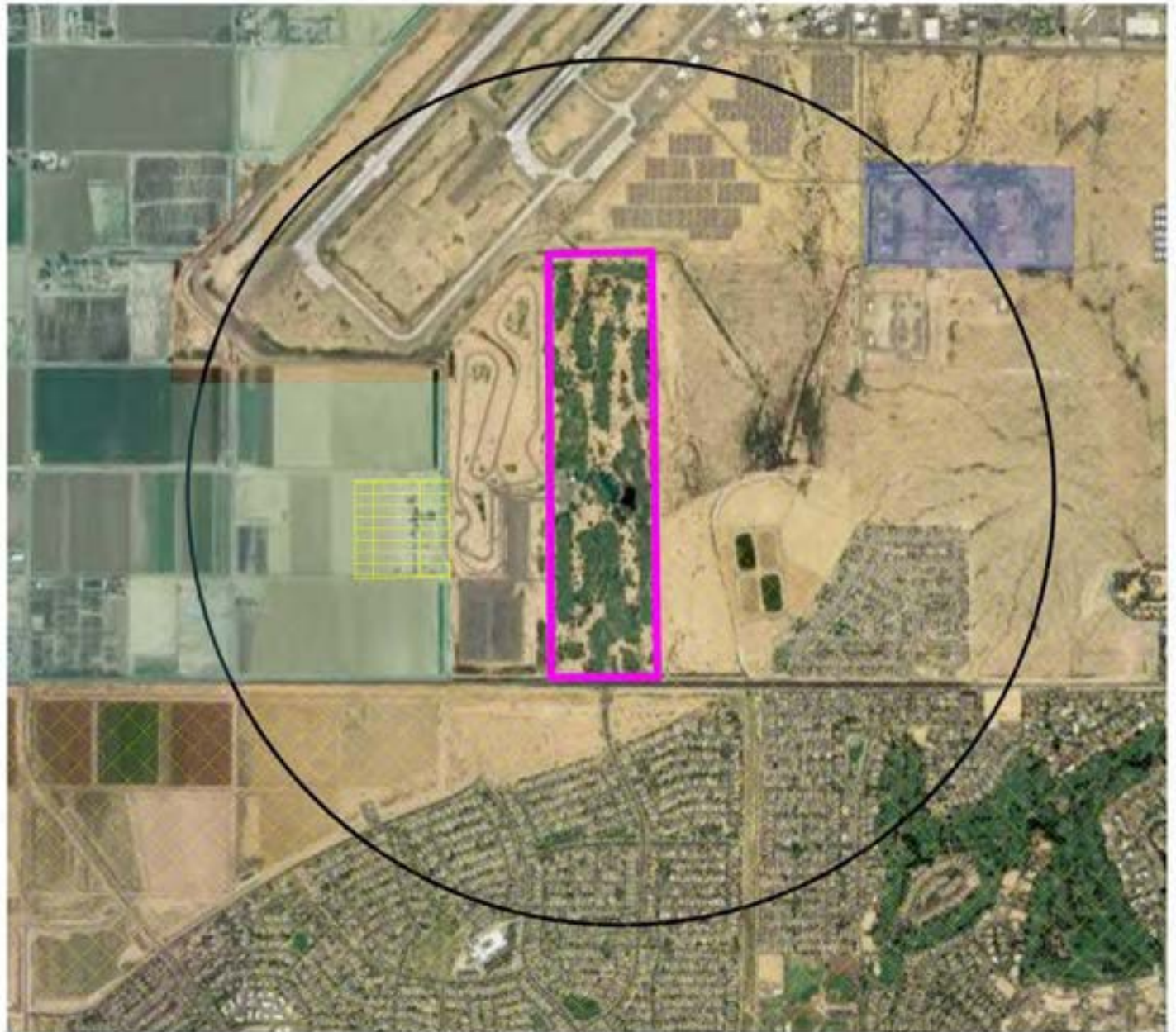


PROJ.NO.: 2018
DATE: AUG 2019
SCALE: 1" = 5000'
DRAWN BY: MM
CHECKED BY: DJ

FALCON GOLF
152ND AVE & CAMELBACK RD
MARICOPA COUNTY, AZ

FIG. 1 VICINTIY MAP

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436



LEGEND

CC&N EXPANSION AREA (FALCON GOLF)



VALLEY UTILITIES WATER COMPANY



LITCHFIELD PARK SERVICE COMPANY (LIBERTY UTILITIES)



ADAMAN MUTUAL WATER COMPANY



EPCOR WATER (SEWER ONLY)



2000 1000 0 2000



SCALE

FEET



PROJ.NO.: 2018

DATE: AUG 2019

SCALE: 1" = 2000'

DRAWN BY: MM

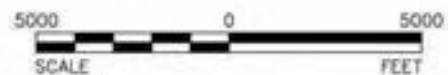
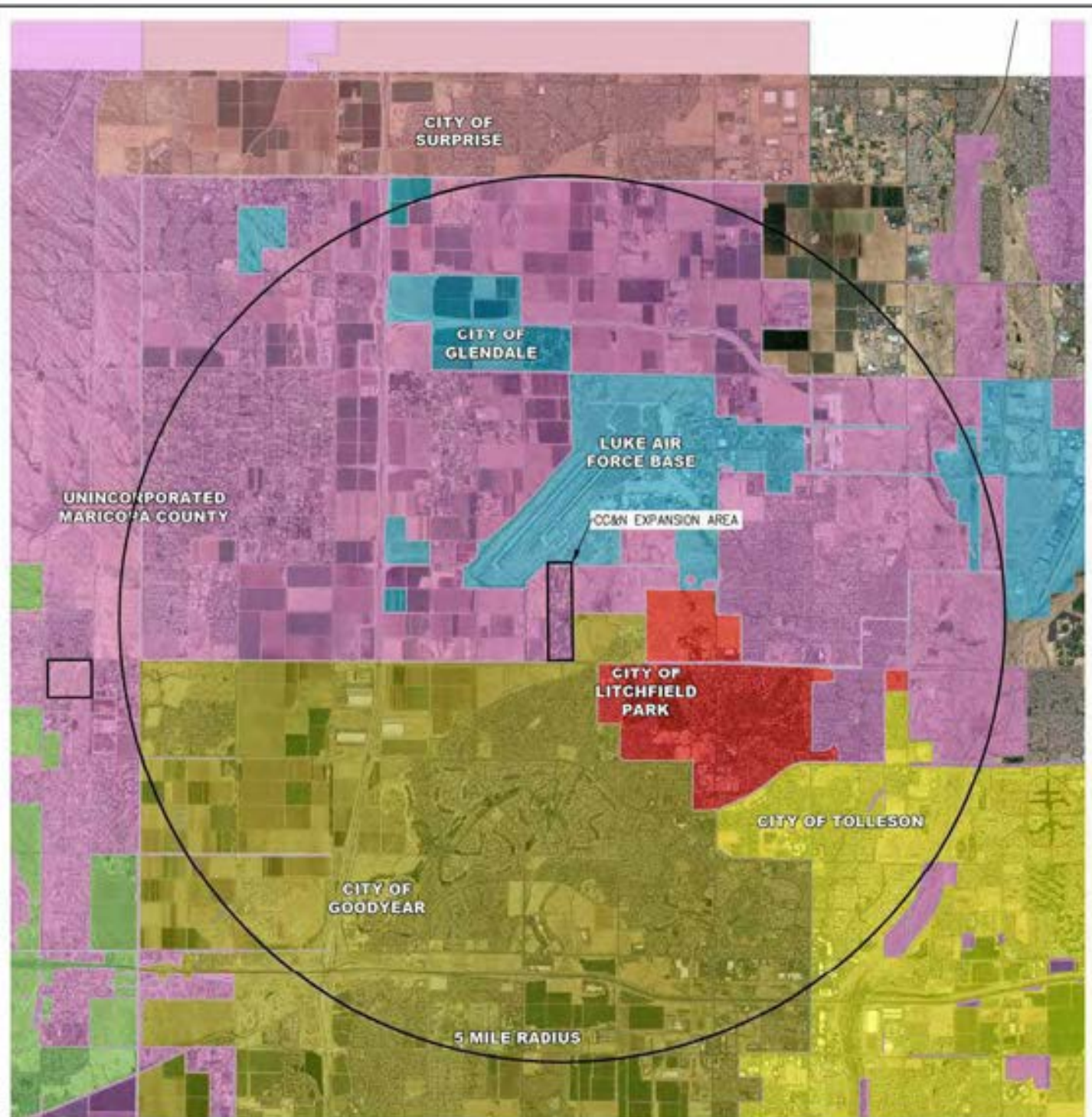
CHECKED BY: DJ

FALCON GOLF

152ND AVENUE AND CAMELBACK ROAD
MARICOPA COUNTY, ARIZONA

FIG. 2: WATER & SEWER SERVICE VICINITY MAP

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436



PROJ.NO.: 2018
 DATE: AUG 2019
 SCALE: 1" = 8000'
 DRAWN BY: MM
 CHECKED BY: DJ

FALCON GOLF
 152ND AVENUE AND CAMELBACK ROAD
 MARICOPA COUNTY, ARIZONA

FIG. 3: MUNICIPALITY VICINITY MAP

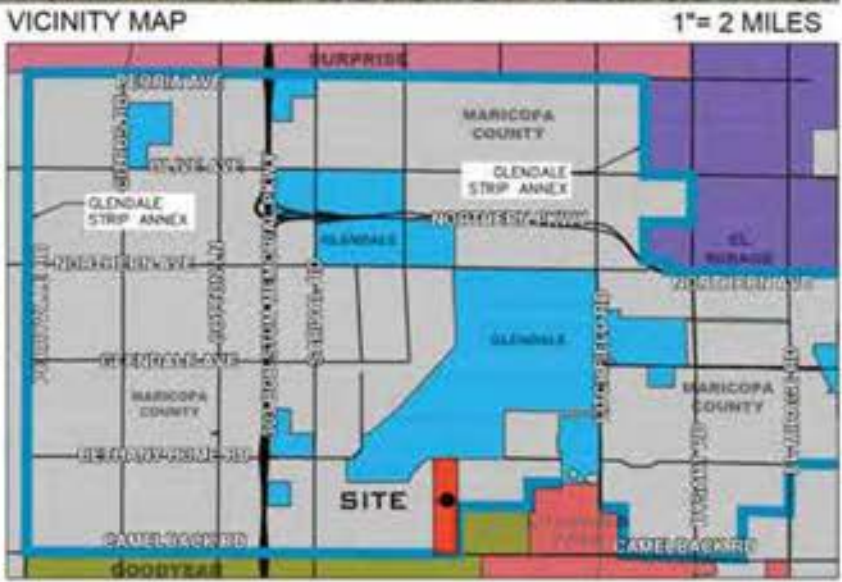

HILGARTWILSON
 2141 E. HIGHLAND AVE., STE. 250
 PHOENIX, AZ 85016
 P: 602.490.0535 / F: 602.368.2436

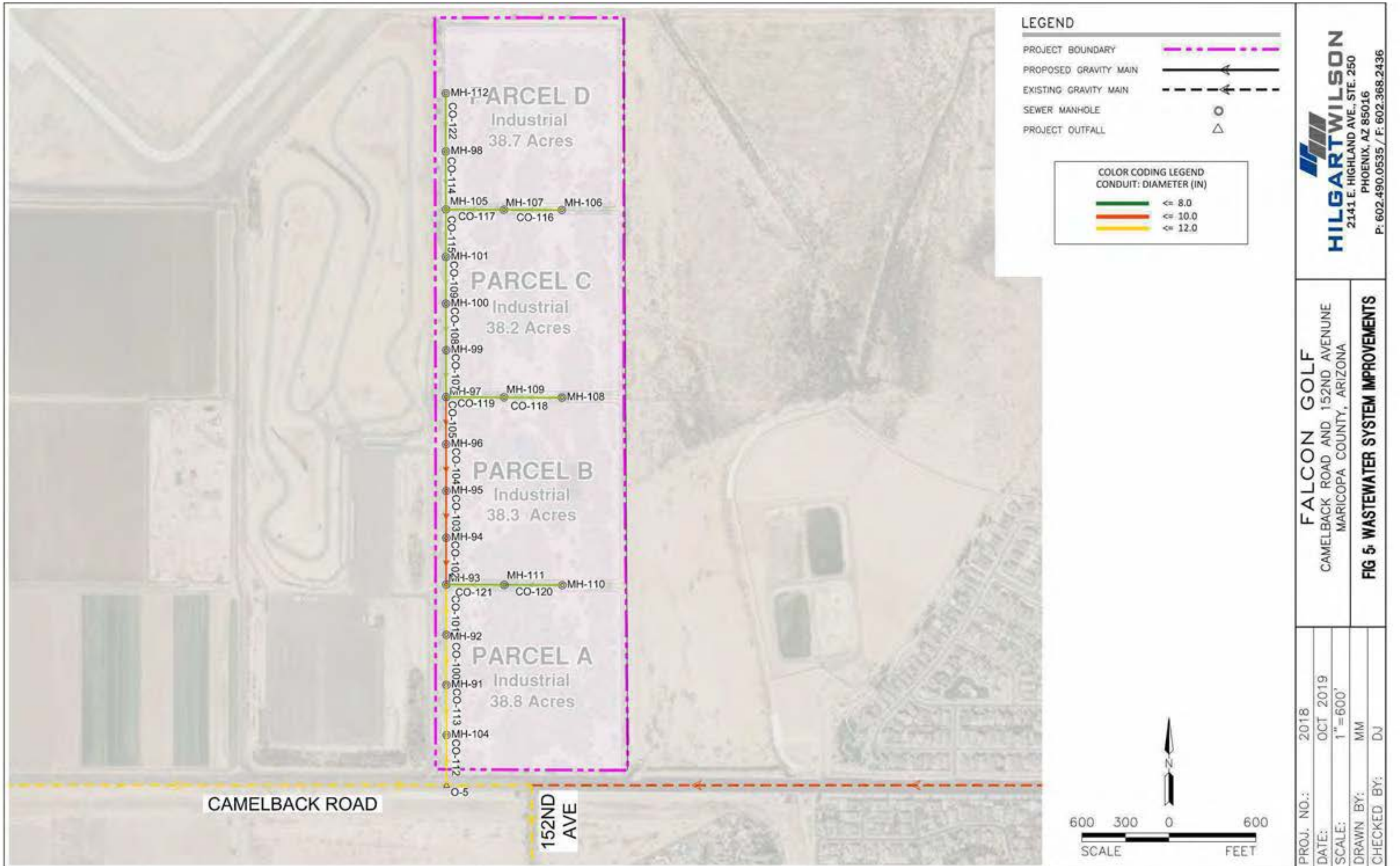


SITE DATA CHART		
FALCON GOLF COURSE	Parcel	Area (Ac.) (Gross)
	A	38.8
	B	38.3
	C	38.2
	D	38.7
	LS/Retention	3.4
	TOTAL PROJECT	157.4

*Project Area excludes Camelback ROW (65')

- LEGEND
- PROJECT BOUNDARY
 - FULL MOVEMENT ACCESS
 - LIMITED MOVEMENT ACCESS





APPENDIX B WASTEWATER FLOW CALCULATIONS

Table B.1 - Wastewater Flow Calculations

Project: Falcon Golf

Prepared By: Michael MacDonald

October 2019



Parcel / Phase	Net Area (ac)	Land Use	Average Daily Flow		Peak Hour Flow	
			(gpd)	(gpm)	(gpd)	(gpm)
Parcel A	38.8	Industrial	58,200	40.4	174,600	121.3
Parcel B	38.3	Industrial	57,450	39.9	172,350	119.7
Parcel C	38.2	Industrial	57,300	39.8	171,900	119.4
Parcel D	38.7	Industrial	58,050	40.3	174,150	120.9
Total	154.0	-	231,000	160.4	693,000	481.3

Notes:

Design Criteria based on the Liberty Utilities 2014 Maricopa County Development Guide

Flow Factors:

Average Daily Flow Factor: 1,500 gallons per acre per day

Peaking Factors:

All Diameters: 3.00 x Average Daily Flow

APPENDIX C
ENGINEER'S OPINION OF PROBABLE COSTS

Engineer's Opinion of Probable Costs
Falcon Golf Wastewater Service Area
Wastewater Collection System Improvements
October 2019



Phase 1 Onsite Improvements

Item	Quantity	Units	Unit Price	Total Cost
Construction Costs				
8" PVC Sewer Line	4,495	LF	\$ 30.00	\$ 134,850.00
10" PVC Sewer Line	1,295	LF	\$ 40.00	\$ 51,800.00
12" PVC Sewer Line	1,385	LF	\$ 65.00	\$ 90,025.00
Manhole (5-ft Dia.) - Complete	21	EA	\$ 6,500.00	\$ 136,500.00
Connect to Existing Manhole	1	EA	\$ 5,000.00	\$ 5,000.00
Subtotal - Construction Costs				\$ 418,175.00
Construction Contingency	10%			\$ 41,817.50
Total - Construction Costs				\$ 459,992.50
Soft Costs				
Engineering Design	8% of construction cost =		\$	36,799.40
Permitting	3.5% of construction cost =		\$	16,099.74
Materials Testing	1.5% of construction cost =		\$	6,899.89
Construction Staking	2.5% of construction cost =		\$	11,499.81
Construction Management	3.0% of construction cost =		\$	13,799.78
Subtotal - Soft Costs			\$	85,098.61
Soft Costs Contingency	10%		\$	8,509.86
Total - Soft Costs			\$	93,608.47
TOTAL - Phase 1 Onsite Improvements			\$	553,600.97

APPENDIX D HYDRAULIC MODEL RESULTS

AVERAGE DAILY FLOW RESULTS

CONDUIT TABLE
MANHOLE TABLE
OUTFALL TABLE

Label	Dia. (in)	Length (Scld) (ft)	Slope (Calcd) (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Depth / Dia. (%)	Flow (gpd)	Flow / Capacit y (Design) (%)	Mannin g n	Vel (ft/s)	Capacity (Excess Design) (gpd)	Capacity (Full Flow) (gpd)
CO-100	12.0	346	0.0019	MH-92	1,041.95	16.38	MH-91	1,041.29	15.45	25.3	172,800.0	18.8	0.013	1.48	744,231.7	1,005,652.1
CO-101	12.0	347	0.0019	MH-93	1,042.71	17.76	MH-92	1,042.05	16.28	24.7	172,800.0	18.9	0.013	1.48	743,318.4	1,004,650.6
CO-102	10.0	323	0.0024	MH-94	1,043.66	19.28	MH-93	1,042.88	17.76	27.7	144,075.0	22.7	0.013	1.56	490,446.7	695,840.8
CO-103	10.0	323	0.0024	MH-95	1,044.54	19.84	MH-94	1,043.76	19.18	27.7	144,075.0	22.7	0.013	1.56	490,446.7	695,840.8
CO-104	10.0	323	0.0024	MH-96	1,045.42	20.80	MH-95	1,044.64	19.74	24.7	115,350.0	18.2	0.013	1.46	519,171.7	695,840.8
CO-105	10.0	326	0.0024	MH-97	1,046.30	20.48	MH-96	1,045.52	20.70	24.7	115,350.0	18.3	0.013	1.45	516,220.4	692,604.3
CO-107	8.0	323	0.0033	MH-99	1,047.54	17.90	MH-97	1,046.47	20.47	27.4	86,700.0	21.2	0.013	1.54	323,187.2	449,498.0
CO-108	8.0	320	0.0033	MH-100	1,048.70	15.92	MH-99	1,047.64	17.80	27.4	86,700.0	21.2	0.013	1.54	322,914.0	449,198.5
CO-109	8.0	323	0.0033	MH-101	1,049.87	14.09	MH-100	1,048.80	15.82	22.4	58,050.0	14.2	0.013	1.37	351,837.2	449,498.0
CO-112	12.0	346	0.0019	MH-104	1,040.43	13.85	O-5	1,039.77	13.23	28.6	231,000.0	25.2	0.013	1.61	686,031.7	1,005,652.1
CO-113	12.0	346	0.0019	MH-91	1,041.19	15.55	MH-104	1,040.53	13.75	28.6	231,000.0	23.0	0.013	1.61	774,652.1	1,005,652.1
CO-114	8.0	400	0.0033	MH-98	1,052.48	9.66	MH-105	1,051.16	12.69	15.8	29,025.0	7.1	0.013	1.12	380,045.7	448,602.6
CO-115	8.0	329	0.0033	MH-105	1,051.06	12.79	MH-101	1,049.97	13.99	22.4	58,050.0	14.2	0.013	1.37	352,136.2	449,825.8
CO-116	8.0	400	0.0033	MH-106	1,053.90	3.79	MH-107	1,052.58	8.97	15.8	29,025.0	7.1	0.013	1.12	380,076.1	448,636.0
CO-117	8.0	400	0.0033	MH-107	1,052.48	9.07	MH-105	1,051.16	12.69	15.8	29,025.0	7.1	0.013	1.12	380,076.1	448,636.0
CO-118	8.0	400	0.0033	MH-108	1,049.21	13.76	MH-109	1,047.89	16.74	15.7	28,650.0	7.0	0.013	1.12	380,451.1	448,636.0
CO-119	8.0	400	0.0033	MH-109	1,047.79	16.84	MH-97	1,046.47	20.47	15.7	28,650.0	7.0	0.013	1.12	380,451.1	448,636.0
CO-120	8.0	400	0.0033	MH-110	1,045.78	15.67	MH-111	1,044.46	17.07	15.7	28,725.0	7.0	0.013	1.12	380,376.1	448,635.9
CO-121	8.0	400	0.0033	MH-111	1,044.36	17.17	MH-93	1,043.04	17.77	15.7	28,725.0	7.0	0.013	1.12	380,376.1	448,636.0
CO-122	8.0	400	0.0033	MH-112	1,053.90	8.28	MH-98	1,052.58	9.56	15.8	29,025.0	7.1	0.013	1.12	380,076.1	448,636.0

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (System Sanitary) (gpd)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Elevation (Ground) (ft)
MH-91	1,057.74	1,041.19	16.55	231,000.01	1,041.52	1,041.52	1,057.74
MH-92	1,059.33	1,041.95	17.38	172,799.99	1,042.23	1,042.23	1,059.33
MH-93	1,061.47	1,042.71	18.76	172,799.99	1,042.99	1,042.99	1,061.47
MH-94	1,063.77	1,043.66	20.11	144,075.00	1,044.53	1,044.53	1,063.77
MH-95	1,065.21	1,044.54	20.67	144,075.00	1,045.41	1,045.41	1,065.21
MH-96	1,067.06	1,045.42	21.64	115,350.00	1,046.26	1,046.26	1,067.06
MH-97	1,067.61	1,046.30	21.31	115,350.00	1,047.14	1,047.14	1,067.61
MH-98	1,062.81	1,052.48	10.33	29,025.00	1,053.13	1,053.13	1,062.81
MH-99	1,066.11	1,047.54	18.57	86,700.00	1,048.28	1,048.28	1,066.11
MH-100	1,065.29	1,048.70	16.59	86,700.00	1,049.44	1,049.44	1,065.29
MH-101	1,064.63	1,049.87	14.76	58,050.00	1,050.57	1,050.57	1,064.63
MH-104	1,055.28	1,040.43	14.85	231,000.01	1,040.76	1,040.76	1,055.28
MH-105	1,064.52	1,051.06	13.46	58,050.00	1,051.76	1,051.76	1,064.52
MH-106	1,058.36	1,053.90	4.46	29,025.00	1,054.65	1,054.65	1,058.36
MH-107	1,062.22	1,052.48	9.74	29,025.00	1,053.23	1,053.23	1,062.22
MH-108	1,063.64	1,049.21	14.43	28,650.00	1,049.96	1,049.96	1,063.64
MH-109	1,065.30	1,047.79	17.51	28,650.00	1,048.54	1,048.54	1,065.30
MH-110	1,062.11	1,045.78	16.33	28,725.00	1,045.89	1,045.89	1,062.11
MH-111	1,062.19	1,044.36	17.83	28,725.00	1,044.47	1,044.47	1,062.19
MH-112	1,062.85	1,053.90	8.95	29,025.00	1,054.55	1,054.55	1,062.85

FlexTable: Outfall Table
19-0715_2018-Falcon Golf Sewer.stsw

Active Scenario: Average Daily Flow

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Flow (Total Out) (gpd)	Elevation (Ground) (ft)
O-5	1,054.00	1,039.57	231,000.0	1,054.00

PEAK FLOW RESULTS

CONDUIT TABLE
MANHOLE TABLE
OUTFALL TABLE

Label	Dia. (in)	Length (Scld) (ft)	Slope (Calcd) (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Depth / Dia. (%)	Flow (gpd)	Flow / Capacit y (Design) (%)	Mannin g n	Vel (ft/s)	Capacity (Excess Design) (gpd)	Capacity (Full Flow) (gpd)
CO-100	12.0	346	0.0019	MH-92	1,041.95	16.38	MH-91	1,041.29	15.45	51.0	518,400.0	56.5	0.013	2.00	398,631.7	1,005,652.1
CO-101	12.0	347	0.0019	MH-93	1,042.71	17.76	MH-92	1,042.05	16.28	45.9	518,400.0	56.6	0.013	2.00	397,718.4	1,004,650.6
CO-102	10.0	323	0.0024	MH-94	1,043.66	19.28	MH-93	1,042.88	17.76	50.1	432,225.0	68.1	0.013	2.08	202,296.7	695,840.8
CO-103	10.0	323	0.0024	MH-95	1,044.54	19.84	MH-94	1,043.76	19.18	51.1	432,225.0	68.1	0.013	2.08	202,296.7	695,840.8
CO-104	10.0	323	0.0024	MH-96	1,045.42	20.80	MH-95	1,044.64	19.74	47.4	346,050.0	54.5	0.013	1.97	288,471.7	695,840.8
CO-105	10.0	326	0.0024	MH-97	1,046.30	20.48	MH-96	1,045.52	20.70	44.2	346,050.0	54.8	0.013	1.97	285,520.4	692,604.3
CO-107	8.0	323	0.0033	MH-99	1,047.54	17.90	MH-97	1,046.47	20.47	49.5	260,100.0	63.5	0.013	2.06	149,787.2	449,498.0
CO-108	8.0	320	0.0033	MH-100	1,048.70	15.92	MH-99	1,047.64	17.80	49.5	260,100.0	63.5	0.013	2.06	149,514.1	449,198.5
CO-109	8.0	323	0.0033	MH-101	1,049.87	14.09	MH-100	1,048.80	15.82	41.4	174,150.0	42.5	0.013	1.87	235,737.2	449,498.0
CO-112	12.0	346	0.0019	MH-104	1,040.43	13.85	O-5	1,039.77	13.23	52.3	693,000.0	75.6	0.013	2.14	224,031.7	1,005,652.1
CO-113	12.0	346	0.0019	MH-91	1,041.19	15.55	MH-104	1,040.53	13.75	56.0	693,000.0	68.9	0.013	2.14	312,652.0	1,005,652.1
CO-114	8.0	400	0.0033	MH-98	1,052.48	9.66	MH-105	1,051.16	12.69	29.0	87,075.0	21.3	0.013	1.54	321,995.7	448,602.6
CO-115	8.0	329	0.0033	MH-105	1,051.06	12.79	MH-101	1,049.97	13.99	39.6	174,150.0	42.5	0.013	1.87	236,036.2	449,825.8
CO-116	8.0	400	0.0033	MH-106	1,053.90	3.79	MH-107	1,052.58	8.97	27.5	87,075.0	21.3	0.013	1.54	322,026.2	448,636.0
CO-117	8.0	400	0.0033	MH-107	1,052.48	9.07	MH-105	1,051.16	12.69	29.0	87,075.0	21.3	0.013	1.54	322,026.2	448,636.0
CO-118	8.0	400	0.0033	MH-108	1,049.21	13.76	MH-109	1,047.89	16.74	27.3	85,950.0	21.0	0.013	1.53	323,151.1	448,636.0
CO-119	8.0	400	0.0033	MH-109	1,047.79	16.84	MH-97	1,046.47	20.47	33.3	85,950.0	21.0	0.013	1.53	323,151.1	448,636.0
CO-120	8.0	400	0.0033	MH-110	1,045.78	15.67	MH-111	1,044.46	17.07	27.4	86,175.0	21.1	0.013	1.53	322,926.1	448,635.9
CO-121	8.0	400	0.0033	MH-111	1,044.36	17.17	MH-93	1,043.04	17.77	28.3	86,175.0	21.1	0.013	1.53	322,926.1	448,636.0
CO-122	8.0	400	0.0033	MH-112	1,053.90	8.28	MH-98	1,052.58	9.56	27.5	87,075.0	21.3	0.013	1.54	322,026.2	448,636.0

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (System Sanitary) (gpd)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Elevation (Ground) (ft)
MH-91	1,057.74	1,041.19	16.55	693,000.02	1,041.80	1,041.80	1,057.74
MH-92	1,059.33	1,041.95	17.38	518,400.02	1,042.46	1,042.46	1,059.33
MH-93	1,061.47	1,042.71	18.76	518,400.02	1,043.22	1,043.22	1,061.47
MH-94	1,063.77	1,043.66	20.11	432,225.02	1,044.14	1,044.14	1,063.77
MH-95	1,065.21	1,044.54	20.67	432,225.02	1,045.02	1,045.02	1,065.21
MH-96	1,067.06	1,045.42	21.64	346,050.02	1,045.84	1,045.84	1,067.06
MH-97	1,067.61	1,046.30	21.31	346,050.02	1,046.72	1,046.72	1,067.61
MH-98	1,062.81	1,052.48	10.33	87,075.00	1,052.68	1,052.68	1,062.81
MH-99	1,066.11	1,047.54	18.57	260,099.99	1,047.90	1,047.90	1,066.11
MH-100	1,065.29	1,048.70	16.59	260,099.99	1,049.06	1,049.06	1,065.29
MH-101	1,064.63	1,049.87	14.76	174,149.99	1,050.16	1,050.16	1,064.63
MH-104	1,055.28	1,040.43	14.85	693,000.02	1,041.04	1,041.04	1,055.28
MH-105	1,064.52	1,051.06	13.46	174,149.99	1,051.35	1,051.35	1,064.52
MH-106	1,058.36	1,053.90	4.46	87,075.00	1,054.10	1,054.10	1,058.36
MH-107	1,062.22	1,052.48	9.74	87,075.00	1,052.68	1,052.68	1,062.22
MH-108	1,063.64	1,049.21	14.43	85,950.00	1,049.41	1,049.41	1,063.64
MH-109	1,065.30	1,047.79	17.51	85,950.00	1,047.99	1,047.99	1,065.30
MH-110	1,062.11	1,045.78	16.33	86,175.00	1,045.98	1,045.98	1,062.11
MH-111	1,062.19	1,044.36	17.83	86,175.00	1,044.56	1,044.56	1,062.19
MH-112	1,062.85	1,053.90	8.95	87,075.00	1,054.10	1,054.10	1,062.85

FlexTable: Outfall Table
19-0715_2018-Falcon Golf Sewer.stsw

Active Scenario: Peak Flow

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Flow (Total Out) (gpd)	Elevation (Ground) (ft)
O-5	1,054.00	1,039.57	693,000.0	1,054.00

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EXHIBIT 5

**ESTIMATED TOTAL CONSTRUCTION COSTS AND
PLANT COST PROJECTIONS**

Engineer's Opinion of Probable Costs
Falcon Golf Water Service Area
Water System Improvements
 October 2019



Phase 1 Onsite Improvements

Item	Quantity	Units	Unit Price	Total Cost
Construction Costs				
Waterline 12" PVC	9,200	LF	\$ 75.00	\$ 690,000.00
Waterline 16" PVC	6,531	LF	\$ 110.00	\$ 718,410.00
24"x12" Tapping Sleeve & Valve	1	EA	\$ 12,000.00	\$ 12,000.00
24"x16" Tapping Sleeve & Valve	1	EA	\$ 14,000.00	\$ 14,000.00
12" Gate Valve, Valve Box, and Fittings	10	EA	\$ 2,750.00	\$ 27,500.00
16" Gate Valve, Valve Box, and Fittings	4	EA	\$ 7,500.00	\$ 30,000.00
Fire Hydrant	14	EA	\$ 5,500.00	\$ 77,000.00
Subtotal - Construction Costs				\$ 1,568,910.00
Construction Contingency	10%			\$ 156,891.00
Total - Construction Costs				\$ 1,725,801.00
Soft Costs				
Engineering Design	8% of construction cost =		\$	138,064.08
Permitting	3.5% of construction cost =		\$	60,403.04
Materials Testing	1.5% of construction cost =		\$	25,887.02
Construction Staking	2.5% of construction cost =		\$	43,145.03
Construction Management	3.0% of construction cost =		\$	51,774.03
Subtotal - Soft Costs			\$	319,273.19
Soft Costs Contingency	10%		\$	31,927.32
Total - Soft Costs			\$	351,200.50
TOTAL - Phase 1 Onsite Improvements				\$ 2,077,001.50

Engineer's Opinion of Probable Costs
Falcon Golf Wastewater Service Area
Wastewater Collection System Improvements
October 2019



Phase 1 Onsite Improvements

Item	Quantity	Units	Unit Price	Total Cost
Construction Costs				
8" PVC Sewer Line	4,495	LF	\$ 30.00	\$ 134,850.00
10" PVC Sewer Line	1,295	LF	\$ 40.00	\$ 51,800.00
12" PVC Sewer Line	1,385	LF	\$ 65.00	\$ 90,025.00
Manhole (5-ft Dia.) - Complete	21	EA	\$ 6,500.00	\$ 136,500.00
Connect to Existing Manhole	1	EA	\$ 5,000.00	\$ 5,000.00
Subtotal - Construction Costs				\$ 418,175.00
Construction Contingency	10%			\$ 41,817.50
Total - Construction Costs				\$ 459,992.50
Soft Costs				
Engineering Design	8% of construction cost =		\$	36,799.40
Permitting	3.5% of construction cost =		\$	16,099.74
Materials Testing	1.5% of construction cost =		\$	6,899.89
Construction Staking	2.5% of construction cost =		\$	11,499.81
Construction Management	3.0% of construction cost =		\$	13,799.78
Subtotal - Soft Costs			\$	85,098.61
Soft Costs Contingency	10%		\$	8,509.86
Total - Soft Costs			\$	93,608.47
TOTAL - Phase 1 Onsite Improvements			\$	553,600.97

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EXHIBIT 6

GENERAL STATEMENT OF FINANCIAL CONDITION

Wastewater - Balance Sheet Assets			
Account No.	Assets	Balance at Beginning of Year (2019)	Balance at End of Year (2019)
Current and Accrued Assets			
131	Cash	\$112,023	\$15,282,60
132	Special Deposits	4,560,053	6,320,133
135	Temporary Cash Investments	0	0
141	Customer Accounts Receivable	860,410	932,730
142	Other Accounts Receivable	(105,541)	(19,490)
143	Accumulated Provision for Uncollectable Accounts	(2,328)	(1,762)
146	Notes Receivable from Associated Companies	0	0
151	Plant Material and Supplies	0	0
162	Prepayments	36,358	12,530
173	Accrued Utility Revenue	1,003,893	95,557
174	Miscellaneous Current and Accrued Assets	0	437
	Total Current and Accrued Assets	\$6,464,868	\$7,464,418
Deferred Debits			
186.1	Deferred Rate Case Expense	(\$2,024)	\$125,208
186.2	Other Deferred Debits	449,086	195,416
	Total Deferred Debits	\$447,062	\$320,625
Fixed Assets			
101	Utility Plant in Service*	\$119,354,712	\$120,973,660
103	Property Held for Future Use	38,480	38,480
105	Construction Work in Progress	4,398,745	7,477,903
108	Accumulated Depreciation (enter as negative)*	(29,800,842)	(34,133,281)
121	Non-Utility Property	0	0
122	Accumulated Depreciation - Non Utility	0	0
	Total Fixed Assets	\$93,991,095	\$94,356,762
	Total Assets	\$100,903,025	\$102,141,805

Water - Balance Sheet Assets			
Account No.	Assets	Balance at Beginning of Year (2019)	Balance at End of Year (2019)
Current and Accrued Assets			
131	Cash	\$102,134	\$120,027
134	Working Funds	2,418,515	4,608,468
135	Temporary Cash Investments	0	0
141	Customer Accounts Receivable	784,458	971,116
142	Other Accounts Receivable	0	0
143	Accumulated Provision for Uncollectable Accounts	(2,123)	(1,835)
146	Notes Receivable from Associated Companies	0	0
151	Plant Material and Supplies	0	0
162	Prepayments	279,843	290,000
173	Accrued Utility Revenue	3,329,498	3,744,009
174	Miscellaneous Current and Accrued Assets	0	0
	Total Current and Accrued Assets	\$6,912,326	\$9,731,785
Deferred Debits			
186.1	Deferred Rate Case Expense	(\$1,846)	\$130,361
186.2	Other Deferred Debits	913,795	617,615
	Total Deferred Debits	\$911,949	\$747,977
Fixed Assets			
101	Utility Plant in Service*	\$112,140,707	\$114,593,923
103	Property Held for Future Use	6,000	6,000
105	Construction Work in Progress	6,874,221	8,785,532
108	Accumulated Depreciation (enter as negative)*	(33,099,594)	(36,665,011)
121	Non-Utility Property	21,100	21,100
122	Accumulated Depreciation - Non Utility	0	0
	Total Fixed Assets	\$85,942,435	\$86,741,544
	Total Assets	\$93,766,710	\$97,221,305

Balance Sheet Liabilities and Owners Equity			
Account No.	Liabilities	Balance at Beginning of Year (2019)	Balance at End of Year (2019)
Current Liabilities			
231	Accounts Payable	(\$666)	\$195
232	Notes Payable (Current Portion)	0	0
234	Notes Payable to Associated Companies	2,878,950	225,486
235	Customer Deposits	0	0
236	Accrued Taxes	70,129	0
237	Accrued Interest	0	0
241	Miscellaneous Current and Accrued Liabilities	2,657,266	593,115
253	Other Deferred Credits	0	0
	Total Current Liabilities	\$5,605,678	\$818,796
Long Term Debt			
224	Long Term Debt (Notes and Bonds)	\$0	\$0
	Total Long Term Debt	\$0	\$0
Deferred Credits			
252	Advances in Aid of Construction	\$3,665,336	\$4,044,290
253	Other Deferred Credits	\$6,931,918	\$6,114,238
255	Accumulated Deferred Investment Tax Credits	0	307,415
271	Contributions in Aid of Construction	\$1,166,838	\$2,515,330
272	Less: Amortization of Contributions	(10,729,481)	(12,029,938)
281	Accumulated Deferred Income Tax	2,643,468	15,058,880
	Total Deferred Credits	\$53,678,080	\$66,010,215
	Total Liabilities	\$59,283,758	\$66,829,011
Capital Accounts			
201	Common Stock Issued	\$0	\$0
211	Other Paid-In Capital	26,958,429	25,249,009
215	Retained Earnings	14,660,838	10,063,785
218	Proprietary Capital (Sole Props and Partnerships)	0	0
	Total Capital	\$41,619,267	\$35,312,794
	Total Liabilities and Capital	\$100,903,025	\$102,141,805

Balance Sheet Liabilities and Owners Equity			
Account No.	Liabilities	Balance at Beginning of Year (2019)	Balance at End of Year (2019)
Current Liabilities			
231	Accounts Payable	(\$607)	\$204
232	Notes Payable (Current Portion)	0	0
234	Notes Payable to Associated Companies	2,624,814	234,766
235	Customer Deposits	1,104,867	1,312,213
236	Accrued Taxes	63,938	123,598
237	Accrued Interest	(185)	(335)
242	Miscellaneous Current and Accrued Liabilities	1,941,870	717,378
	Total Current Liabilities	\$5,734,697	\$2,387,824
Long Term Debt			
224	Long Term Debt (Notes and Bonds)	\$0	\$0
Deferred Credits			
251	Unamortized Premium on Debt	\$0	\$0
252	Advances in Aid of Construction	10,261,464	6,790,141
253	Other Deferred Credits	2,511,775	2,899,827
255	Accumulated Deferred Investment Tax Credits	0	0
271	Contributions in Aid of Construction	36,374,026	39,417,631
272	Less: Amortization of Contributions	(3,461,244)	(4,123,142)
281	Accumulated Deferred Income Tax	2,410,119	15,678,622
	Total Deferred Credits	\$48,096,140	\$60,663,079
	Total Liabilities	\$53,830,837	\$63,050,903
Capital Accounts			
201	Common Stock Issued	\$0	\$0
211	Other Paid-In Capital	24,578,703	26,288,123
215	Retained Earnings	15,357,171	7,882,279
218	Proprietary Capital (Sole Props and Partnerships)	0	0
	Total Capital	\$39,935,873	\$34,170,402
	Total Liabilities and Capital	\$93,766,710	\$97,221,305

Liberty Utilities (Litchfield Park Water and Sewer) Corp
Annual Report
Wastewater Comparative Income Statement
12/31/19

Wastewater Comparative Income Statement			
Account No.	Calendar Year	Current Year 01/01/2019 - 12/31/2019	Last Year 01/01/2018 - 12/31/2018
	Operating Revenue:		
521	Flat Rate Revenues	\$13,138,378	\$11,832,930
522	Measured Revenues	1,334,489	1,104,636
534	Rents from Wastewater Property	0	0
536	Other Wastewater Revenues	231,197	765,022
	Total Revenues	\$14,704,063	\$13,702,587
	Operating Expenses		
701	Salaries and Wages	\$0	\$0
704	Employee Pensions and Benefits	0	0
710	Purchased Wastewater Treatment	35,676	44,081
711	Sludge Removal Expense	386,206	349,354
715	Purchased Power	566,519	822,888
716	Fuel for Power Production	4,001	626
718	Chemicals	411,642	458,822
720	Materials and Supplies	126,356	130,049
720.1	Repairs and Maintenance	0	0
720.2	Office Supplies and Expense	0	0
721	Office Expense	22,755	48,877
731	Contractual Services-Engineering	0	0
732	Contractual Services - Accounting	0	6,765
733	Contractual Services - Legal	11,342	76,818
734	Contractual Services - Management Fees	2,810,085	2,488,432
735	Contractual Services - Testing	35,582	32,067
736	Contractual Services - Other	1,443,668	1,591,958
740	Rents - Building	0	0
742	Rents - Equipment	2,452	2,354
750	Transportation Expenses	44,839	41,396
757	Insurance - General Liability	52,457	47,886
758	Insurance - Worker's Compensation	0	0
759	Insurance - Other	0	0
760	Advertising Expense	0	0
766	Regulatory Commission Expense - Rate Case	0	0
767	Regulatory Commission Expense - Other	(140,389)	244,989
770	Bad Debt Expense	(9,514)	8,733
775	Miscellaneous Expense	355,400	(460,355)
403	Depreciation Expense (From Schedule AR4)	2,372,780	4,875,459
408	Taxes Other Than Income	0	0
408.11	Property Taxes	627,763	616,624
408.12	Payroll Taxes	0	0
409	Income Taxes	0	0
	Total Operating Expenses	\$8,959,622	\$11,427,823
	Operating Income / (Loss)	\$5,744,441	\$2,274,764
	Other Income / (Expense)		
414	Gain (Loss) on Dispositions	\$0	\$0
419	Interest and Dividend Income	0	0
420	AFUDC Income	(3,066)	3,173
421	Non-Utility Income	0	0
426	Miscellaneous Non-Utility (Expense)	0	0
427	Interest (Expense)	(31,108)	(26,206)
	Total Other Income / (Expense)	(\$34,175)	(\$23,032)
	Net Income / (Loss)	\$5,710,267	\$2,251,732

Water Comparative Income Statement			
Account No.	Calendar Year	Current Year 01/01/2019 - 12/31/2019	Last Year 01/01/2018 - 12/31/2018
	Operating Revenue:		
461	Metered Water Revenue	\$13,591,162	\$12,868,040
460	Unmetered Water Revenue	0	0
462	Fire Protection Revenue	49,692	48,947
469	Guaranteed Revenues (Surcharges)	0	0
471	Miscellaneous Service Revenues	0	0
474	Other Water Revenue	292,423	275,076
	Total Revenues	\$13,933,277	\$13,192,063
	Operating Expenses		
601	Salaries and Wages	\$0	\$0
604	Employee Pensions and Benefits	0	0
610	Purchased Water	20,172	56,720
615	Purchased Power	1,183,506	1,188,770
616	Fuel for Power Production	353	4,270
618	Chemicals	833,778	827,827
620	Materials and Supplies	51,616	42,745
620.1	Repairs and Maintenance	0	0
620.2	Office Supplies and Expense	32,657	35,073
630	Contractual Services	0	0
631	Contractual Services - Engineering	0	0
632	Contractual Services - Accounting	37,454	81,219
633	Contractual Services - Legal	6,364	4,180
634	Contractual Services - Management Fees	2,605,932	2,651,669
635	Contractual Services - Water Testing	112,546	99,593
636	Contractual Services - Other	1,505,793	1,577,262
640	Rents	0	0
641	Rental of Building/Real Property	2,081	1,535
642	Rental of Equipment	(1,197)	510
650	Transportation Expenses	47,988	57,977
657	Insurance - General Liability	63,073	50,385
657.1	Insurance - Health and Life	0	0
665	Regulatory Commission Expense - Rate	217,549	79,077
667	Regulatory Commission Expense - Other	122,998	593,619
670	Bad Debt Expense	5,895	39,986
675	Miscellaneous Expense	274,815	(317,339)
403	Depreciation Expense (From Schedule AR4)	0	2,637,037
408	Taxes Other Than Income	0	0
408.1	Property Taxes	624,765	668,010
409	Income Taxes	2,097,666	0
427.1	Customer Security Deposit Interest	0	0
	Total Operating Expenses	\$9,346,304	\$9,820,124
	Operating Income / (Loss)	\$4,586,973	\$3,371,939
	Other Income / (Expense)		
419	Interest and Dividend Income	\$0	\$1,298
420	AFUDC Revenue	(\$14,716)	107,682
421	Non-Utility Income	0	0
426	Miscellaneous Non-Utility (Expense)	0	0
427	Interest (Expense)	(1,568)	14,563
433	Extraordinary Income	0	0
434	Extraordinary Deductions	0	0
	Total Other Income / (Expense)	(\$16,284)	\$123,543
	Net Income / (Loss)	\$4,570,689	\$3,495,481

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18
19
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21
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23
24
25
26

EXHIBIT 7

LIBERTY LITCHFIELD PARK'S

SCHEDULE OF RATES AND CHARGES

TABLE OF CONTENTS

	<u>Sheet No.</u>
PART ONE STATEMENT OF CHARGES (WATER).....	1
I. RATES.....	1
A. Monthly Minimum Charge	1
B. Commodity Rates.....	5
C. Service Line and Meter Installation Charges	9
D. Miscellaneous Service Charges	10
II. TAXES AND ASSESSMENTS	11
 PART TWO STATEMENT OF TERMS AND CONDITIONS (WATER).....	 12
I. PERMITTED COSTS.....	12
II. INTERRUPTIBLE SERVICE; COMPANY'S LIABILITY LIMITATIONS.....	13
III. TERMINATION OF WATER SERVICE FOR VIOLATION OF WASTEWATER RULES AND REGULATIONS	13
IV. RULES AND REGULATIONS	13
 PART THREE CROSS-CONNECTION OR BACKFLOW TARIFF.....	 14
 PART FOUR CURTAILMENT PLAN.....	 16
 PART FIVE STATEMENT OF CHARGES (WASTEWATER).....	 19
I. RATES.....	19
A. Monthly Minimum Charge	19
B. Commodity Charge.....	20
C. Other Service Related Charges	21
II. TAXES AND ASSESSMENTS	22

PART SIX STATEMENT OF TERMS AND CONDITIONS (WASTEWATER).....	23
I. PERMITTED COSTS.....	23
II. CUSTOMER DISCHARGE TO SYSTEM.....	24
A. Service Subject to Regulation.....	24
B. Waste Limitations	24
C. Inspection and Right of Entry	24
D. Termination of Water Service for Violation of Wastewater Rules and Regulations	25
E. Pre-Treatment	25
III. RULES AND REGULATIONS	25
PART SEVEN PRETREATMENT STANDARDS.....	26
PART EIGHT ALTERNATE RATES FOR WATER AND WASTEWATER (ARWW) DOMESTIC SERVICE – SINGLE FAMILY ACCOMMODATION	27
PART NINE HOOK UP FEE TARIFF	34

Applies to all WATER service areas

PART ONE

STATEMENT OF CHARGESI. RATES

In Decision No. XXXXX, dated XXXXX, 2018, the Commission authorized the following rates and charges to become effective August 1, 2018:

A. Monthly Minimum ChargeRESIDENTIAL (includes multi-family)

Meter Size	Minimum Charge ¹ Per Month
5/8" x 3/4" Meter	\$ 12.54
3/4" Meter	12.54
1" Meter	28.22
1 1/2" Meter	62.70
2" Meter	100.32
3" Meter	200.64
4" Meter	313.50
6" Meter	627.00
8" Meter	1,003.20
10" Meter	1,442.10
12" Meter	2,696.10

¹ Low Income Tariff – A 30% discount is available on monthly minimum and commodity charges to qualified residential customers meeting the low income qualifications.

Issued: August 9, 2018

Effective: August 1, 2018

ISSUED BY:
Matthew Garlick, President
Liberty Utilities (Litchfield Park Water & Sewer) Corp.
12725 W. Indian School Road, Suite D-101
Avondale, AZ 85392
Decision No. XXXXX

APPROVED FOR FILING
DECISION NO. 76799

Applies to all WATER service areas

PART ONE**STATEMENT OF CHARGES****COMMERCIAL/NON-RESIDENTIAL**

Meter Size	Minimum Charge Per Month
5/8" x 3/4" Meter	\$ 12.54
3/4" Meter	12.54
1" Meter	31.35
1 1/2" Meter	62.70
2" Meter	100.32
3" Meter	200.64
4" Meter	313.50
6" Meter	627.00
8" Meter	1,003.20
10" Meter	1,442.10
12" Meter	2,696.10

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Applies to all **WATER** service areas**PART ONE****STATEMENT OF CHARGES****IRRIGATION**

Meter Size	Minimum Charge Per Month
5/8" x 3/4" Meter	\$ 12.54
3/4" Meter	12.54
1" Meter	31.35
1 1/2" Meter	62.70
2" Meter	100.32
3" Meter	200.64
4" Meter	313.50
6" Meter	627.00
8" Meter	1,003.20
10" Meter	1,442.10
12" Meter	2,696.10

Bulk Water Resale	Minimum Charge Per Month
4" Meter ²	\$ 169.29
6" Meter	338.58
8" Meter	543.61
10" Meter	778.73
12" Meter	1,455.89

² Bulk service is limited to customers outside the CC&N.

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Applies to all **WATER** service areas**PART ONE**
STATEMENT OF CHARGES

Construction Hydrants	Minimum Charge Per Month
Construction Hydrants	\$50.00

Fire Service Lines	Minimum Charge Per Month
Fire Service Lines	By Meter Size*

* Liberty Litchfield Park will charge the monthly meter charge associated with the meter size.

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Applies to all WATER service areas

PART ONE
STATEMENT OF CHARGES

B. Commodity Rates

The rate for use in addition to the minimum stated above shall be at the following rates per 1,000 gallons:

RESIDENTIAL (includes multi-family)

<u>Meter Size</u>	<u>Consumption</u>	<u>Rate³</u>
5/8" x 3/4" Meter and 3/4" Meter	0 to 3,000	\$0.7091
	3,001 to 10,000	1.8437
	10,001 to 20,000	2.8437
	Over 20,000	3.2676
1" Meter	0 to 5,000	0.7091
	5,001 to 19,000	1.8437
	19,001 to 30,000	2.8437
	Over 30,000	3.2676
1 1/2" Meter	0 to 40,000	1.8437
	Over 40,000	3.2676
2" Meter	0 to 60,000	1.8437
	Over 60,000	3.2676
3" Meter	0 to 120,000	1.8437
	Over 120,000	3.2676
4" Meter	0 to 180,000	1.8437
	Over 180,000	3.2676
6" Meter	0 to 360,000	1.8437
	Over 360,000	3.2676
8" Meter	0 to 650,000	1.8437
	Over 650,000	3.2676
10" Meter	0 to 940,000	1.8437
	Over 940,000	3.2676
12" Meter	0 to 1,248,000	1.8437
	Over 1,248,000	3.2676

³ Low Income Tariff – A 30% discount is available on monthly minimum and commodity charges to qualified residential customers meeting the low income qualifications.

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DECISION NO. 76799

Applies to all WATER service areas

PART ONE**STATEMENT OF CHARGES****COMMERCIAL/NON-RESIDENTIAL**

<u>Meter Size</u>	<u>Consumption</u>	<u>Rate</u>
5/8" x 3/4" and 3/4" Meter	0 to 9,000	\$1.8437
	Over 9,000	3.2676
1" Meter	0 to 20,000	1.8437
	Over 20,000	3.2676
1 1/2" Meter	0 to 40,000	1.8437
	Over 40,000	3.2676
2" Meter	0 to 60,000	1.8437
	Over 60,000	3.2676
3" Meter	0 to 120,000	1.8437
	Over 120,000	3.2676
4" Meter	0 to 180,000	1.8437
	Over 180,000	3.2676
6" Meter	0 to 360,000	1.8437
	Over 360,000	3.2676
8" Meter	0 to 650,000	1.8437
	Over 650,000	3.2676
10" Meter	0 to 940,000	1.8437
	Over 940,000	3.2676
12" Meter	0 to 1,248,000	1.8437
	Over 1,248,000	3.2676

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Applies to all WATER service areas

PART ONE
STATEMENT OF CHARGES

IRRIGATION

<u>Meter Size</u>	<u>Consumption</u>	<u>Rate</u>
5/8" x 3/4" and 3/4" Meter	0 to 9,000	\$1.8437
	Over 9,000	3.2676
1" Meter	0 to 20,000	1.8437
	Over 20,000	3.2676
1 1/2" Meter	0 to 40,000	1.8437
	Over 40,000	3.2676
2" Meter	0 to 60,000	1.8437
	Over 60,000	3.2676
3" Meter	0 to 120,000	1.8437
	Over 120,000	3.2676
4" Meter	0 to 180,000	1.8437
	Over 180,000	3.2676
6" Meter	0 to 360,000	1.8437
	Over 360,000	3.2676
8" Meter	0 to 650,000	1.8437
	Over 650,000	3.2676
10" Meter	0 to 940,000	1.8437
	Over 940,000	3.2676
12" Meter	0 to 1,248,000	1.8437
	Over 1,248,000	3.2676

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Applies to all **WATER** service areas
PART ONE
STATEMENT OF CHARGES

BULK WATER RESALE

<u>Meter Size</u>	<u>Consumption</u>	<u>Rate</u>
4" Meter	All gallons	\$1.5600
6" Meter	All gallons	1.5600
8" Meter	All gallons	1.5600
10" Meter	All gallons	1.5600
12" Meter	All gallons	1.5600

<u>Construction Water</u>	<u>Consumption</u>	<u>Rate</u>
Hydrants	All gallons	\$3.2676

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PART ONE**STATEMENT OF CHARGES****C. Service Line and Meter Installation Charges**

(Refundable Pursuant to A.A.C. R14-2-405)

<u>Meter Size</u>	<u>Line</u>	<u>Meter</u>	<u>Total</u>
5/8 x 3/4" Meter	\$ 565.00	\$ 158.00	\$ 723.00
3/4" Meter	565.00	260.00	825.00
1" Meter	629.00	321.00	950.00
1 1/2" Meter	699.00	536.00	1,235.00
2" Turbine Meter	At Cost	At Cost	At Cost
2" Compound Meter	At Cost	At Cost	At Cost
3" Turbine Meter	At Cost	At Cost	At Cost
3" Compound Meter	At Cost	At Cost	At Cost
4" Turbine Meter	At Cost	At Cost	At Cost
4" Compound Meter	At Cost	At Cost	At Cost
6" Turbine Meter	At Cost	At Cost	At Cost
6" Compound Meter	At Cost	At Cost	At Cost
8" Meter & Larger Meters	At Cost	At Cost	At Cost

*Hydrant Meter Deposit	
3" Turbine Meter	\$1,470.00
3" Compound Meter	2,265.00

* Shall have a non-interest bearing deposit of the amount indicated, refundable in its entirety upon return of the meter in good condition and payment of the final bill.

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Applies to all WATER service areas
PART ONE
STATEMENT OF CHARGES

D. Miscellaneous Service Charges

<u>Service</u>	<u>Charge</u>
Establishment per A.A.C. R14-2-403(D)	\$20.00
Re-Establishment of Service per A.A.C. R14-2-403(D)	(b)
Reconnection per A.A.C. R14-2-403(D)	\$50.00
Meter Test (if correct) per A.A.C. R14-2-408(F)	\$25.00
Meter Re-Read (if correct) per A.A.C. R14-2-408(C)	\$5.00
Fire Hydrant Meter Relocation	\$50.00
Fire Hydrant Meter Repair	At Cost
NSF Check per A.A.C. R14-2-409(F)	\$25.00 (a)
Deferred Payment, Per Month	1.50%
Late Charge	(c)
Service Calls After Hours	\$40.00 (d)
Deposit Requirement	(e)
Deposit Interest per A.A.C. R14-2-403(B)	6.00%
Water Hook-Up Fee	(f)

- (a) Liberty Litchfield Park may charge only one NSF fee when customers are billed for water and sewer services on one bill.
- (b) Minimum charge times number of full months off the system per A.A.C. R14-2-403(D).
- (c) Greater of \$5.00 or 1.50% of unpaid balance.
- (d) Customer shall be charged for after-hours service calls outside of normal working hours for work performed at customer's request or convenience.
- (e) Per A.A.C. R14-2-403(B):
 Residential – two times the average bill by class according to meter size.
 Commercial – two and one-half times the customer's estimated maximum monthly bill.
- (f) Customers shall pay the applicable Water Hook-Up Fees per tariff.

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 Decision No. XXXXXX

APPROVED FOR FILING
DECISION NO. 76799

Applies to all WATER service areas
PART ONE
STATEMENT OF CHARGES

II. TAXES AND ASSESSMENTS

In addition to the collection of regular rates, the Company will collect from its customers a proportionate share of any privilege, sales, and use tax per A.A.C. R14-2-409(D)(5).

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Decision No. XXXXX

APPROVED FOR FILING
DECISION NO. 76799

Applies to all WATER service areas

PART TWO
STATEMENT OF TERMS AND CONDITIONS

I. PERMITTED COSTS

- A. Costs shall be verified by invoice.
- B. For services that are provided by the Company at cost, costs shall include labor, materials, other charges incurred, and overhead not to exceed 10%. However, prior to any such service being provided, the estimated cost of such service will be provided by the Company to the customer. After review of the cost estimate, the customer will pay the amount of the estimated cost to the Company.
- C. In the event that the actual cost is less than the estimated cost, the Company will refund the excess to the customer within 30 days after completion of the provision of the service or after Company's receipt of invoices, timesheets or other related documents, whichever is later.
- D. In the event the actual cost is more than the estimated cost, the Company will bill the customer for the amount due within 30 days after completion of the provision of the service or after the Company's receipt of invoices, timesheets or other related documents, whichever is later. The amount so billed will be due and payable 30 days after the invoice date. However, if the actual cost is more than five percent (5%) greater than the total amount paid, the customer will only be required to pay five percent (5%) more than the total amount paid, unless the Company can demonstrate that the increased costs were beyond its control and could not be foreseen at the time the estimate for the total amount paid was made.
- E. At the customer's request, the Company shall make available to the customer all invoices, timesheets or related documents that support the cost for providing such service.
- F. Permitted costs shall include any Federal, State or local taxes that are or may be payable by the Company as a result of any tariff or contract for water facilities under which the Customer advances or contributes funds or facilities to the Company.

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Decision No. XXXXX

APPROVED FOR FILING
DECISION NO. 76799

Applies to all WATER service areas**PART TWO****STATEMENT OF TERMS AND CONDITIONS****II. INTERRUPTIBLE SERVICE; COMPANY'S LIABILITY LIMITATIONS**

The Company will supply only such water at such pressures as may be available from time to time as a result of the normal operation of its water system. The Company will maintain a minimum water pressure of 20 p.s.i. and will not guarantee a specific gallons per minute flow rate at any public fire hydrants or fire sprinkler service. In the event service is interrupted, irregular or defective, or fails from causes beyond the Company's control or through ordinary negligence of its employees or agents, the Company will not be liable for any injuries or damages arising therefrom.

III. TERMINATION OF WATER SERVICE FOR VIOLATION OF WASTEWATER RULES AND REGULATIONS

The Company is authorized to discontinue water service to any person connected to both its water and sewer systems who violates the Company's wastewater terms and conditions or in any way creates a public health hazard or the likelihood of such a public health hazard. This termination authority also applies to non-payment for wastewater services.

IV. RULES AND REGULATIONS

The Company has adopted the Rules and Regulations established by the Commission as the basis for its operating procedures. A.A.C. R14-2-401 through A.A.C. R14-2-411 will be controlling of Company procedures, unless specific Commission Order(s) provide otherwise.

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Decision No. XXXXX

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DECISION NO. 76799

Applies to all WATER service areas
PART THREE
CROSS-CONNECTION OR BACKFLOW TARIFF

A. PURPOSE:

The purpose of this tariff is to protect Liberty Utilities (Litchfield Park Water & Sewer) Corp. (the "Company") water from the possibility of contamination caused by backflow of contaminants that may be present on the customer's premises by requiring the installation and periodic testing of backflow-prevention assemblies pursuant to the provisions of the Arizona Administrative Code ("A.A.C.") R14-2-405.B.6. and A.A.C. R18-4-215.

B. REQUIREMENTS:

In compliance with the Rules and Regulations of the Arizona Corporation Commission ("Commission") and the Arizona Department of Environmental Quality ("ADEQ"), specifically A.A.C. R14-2-405.B.6 and A.A.C. R18-4-215 relating to backflow prevention:

1. The Company may require a customer to pay for and have installed, and to maintain, test and repair a backflow-prevention assembly if A.A.C. R18-4-215.B or C applies.
2. A backflow-prevention assembly required to be installed by the customer under Paragraph 1 of this tariff shall comply with the requirements set forth in A.A.C. R18-4-215.D and E.
3. Subject to the provisions of A.A.C. R14-2-407 and 410, and in accordance with Paragraphs 1 and 7 of this tariff, the Company may terminate service or deny service to a customer who fails to install a backflow-prevention assembly as required by this tariff.
4. The Company shall give any existing customer who is required to install a backflow-prevention assembly written notice of said requirement. If A.A.C. R14-2-410.B.1.a is **not** applicable, the customer shall be given thirty (30) days from the time such written notice is received in which to comply with this notice. If the customer can show good cause as to why he cannot install the backflow-prevention assembly within thirty (30) days, the Company or Commission Staff may suspend this requirement for a reasonable period of time.
5. Testing shall be in conformance with the requirements of A.A.C. R18-4-215.F. The Company may require the customer to pay to have the backflow-prevention assembly tested as long as the Company does not require an unreasonable number of tests.

Applies to all WATER service areas**PART THREE****CROSS-CONNECTION OR BACKFLOW TARIFF**

6. The customer shall provide the Company with records of installation and testing. For each backflow-prevention assembly, these records shall include:
- a. assembly identification number and description;
 - b. location;
 - c. date(s) of test(s);
 - d. description of repairs and recommendations for repairs made by tester;
 - e. tester's name and certificate number; and
 - f. tester's field test kit certification documentation.
7. In the event the backflow-prevention assembly does not function properly or fails any test, and an obvious hazard as contemplated under A.A.C. R14-2-410.B.1.a. exists, the Company may terminate service immediately and without notice. The backflow-prevention assembly shall be repaired or replaced by the customer and retested.
8. In the event the backflow-prevention assembly does not function properly or fails any test, or in the event that a customer fails to comply with the testing requirement, and A.A.C. R14-2-410.B.1.a. is **not** applicable, the backflow-prevention assembly shall be repaired or replaced within fourteen (14) days of the initial discovery of the deficiency in the assembly or its function. Failure to remedy the deficiency or dysfunction of the assembly, or failure to retest, shall be grounds for termination of water service in accordance with A.A.C. R14-2-410.

Applies to all WATER service areas
PART FOUR
CURTAILMENT PLAN

ADEQ Public Water System Number: 07-046

Liberty Utilities (Litchfield Park Water & Sewer) Corp. ("Company") is authorized to curtail water service to all customers within its certified area under the terms and conditions listed in this tariff.

This curtailment plan shall become part of the Arizona Department of Environmental Quality Emergency Operations Plan for the Company.

The Company shall notify its customers of this new tariff as part of its next regularly scheduled billing after the effective date of the tariff or no later than sixty (60) days after the effective date of the tariff.

The Company shall provide a copy of the curtailment tariff to any customer, upon request.

Stage 1 Exists When:

Company is able to maintain water storage in the system at 100 percent of capacity and there are no known problems with its well production or water storage in the system.

Restrictions: Under Stage 1, the Company is deemed to be operating normally and no curtailment is necessary.

Notice Requirements: Under Stage 1, no notice is necessary.

Stage 2 Exists When:

- a. Company's water storage or well production has been less than 80 percent of capacity for at least 48 consecutive hours, and
- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

Restrictions: Under Stage 2, the Company may request the customers to voluntarily employ water conservation measures to reduce water consumption by approximately 50 percent. Outside watering should be limited to essential water, dividing outside watering on some uniform basis (such as even and odd days) and eliminating outside watering on weekends and holidays.

Notice Requirements: Under Stage 2, the Company is required to notify customers by delivering written notice door to door at each service address, or by United States first class mail to the billing address or, at the Company's option, both. Such notice shall notify the customers of the general nature of the problem and the need to conserve water.

Applies to all **WATER** service areas
PART FOUR
CURTAILMENT PLAN

Stage 3 Exists When:

- a. Company's total water storage or well production has been less than 50 percent of capacity for at least 24 consecutive hours, and
- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

Restrictions: Under Stage 3, the Company shall request the customer to voluntarily employ water conservation measures to reduce daily consumption by approximately 50 percent. All outside watering should be eliminated, except livestock, and indoor water conservation techniques should be employed whenever possible. Standpipe service shall be suspended.

Notice Requirements:

1. Company is required to notify customers by delivering written notice to each service address, or by United States first class mail to the billing address or, at the Company's option, both. Such notice shall notify the customers of the general nature of the problem and the need to conserve water.
2. Beginning with Stage 3, the Company shall post at least two (2) signs showing the curtailment stage. Signs shall be posted at noticeable locations, like at the well sites and at the entrance to major subdivisions served by the Company.
3. The Company shall notify the Consumer Services Section of the Utilities Division of the Corporation Commission at least 12 hours prior to entering Stage 3.

Once Stage 3 has been reached, the Company must begin to augment the supply of water by either hauling or through an emergency interconnect with an approved water supply in an attempt to maintain the curtailment at a level no higher than Stage 3 until a permanent solution has been implemented.

Stage 4 Exists When:

- a. Company's total water storage or well production has been less than 25 percent of capacity for at least 12 consecutive hours, and
- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

Applies to all **WATER** service areas

PART FOUR
CURTAILMENT PLAN

Restrictions: Under Stage 4, Company shall inform the customers of a **mandatory** restriction to employ water conservation measures to reduce daily consumption. Failure to comply will result in customer disconnection. The following uses of water shall be prohibited:

- Irrigation of outdoor lawns, trees, shrubs, or any plant life is prohibited
- Washing of any vehicle is prohibited
- The use of water for dust control or any outdoor cleaning uses is prohibited
- The use of drip or misting systems of any kind is prohibited
- The filling of any swimming pool, spas, fountains or ornamental pools is prohibited
- The use of construction water is prohibited
- Restaurant patrons shall be served water only upon request
- Any other water intensive activity is prohibited

The Company's operation of its standpipe service is prohibited. The addition of new service lines and meter installations is prohibited.

Notice Requirements:

1. Company is required to notify customers by delivering written notice to each service address, or by United States first class mail to the billing address or, at the Company's option, both. Such notice shall notify the customers of the general nature of the problem and the need to conserve water.
2. Company shall post at least two (2) signs showing curtailment stage. Signs shall be posted at noticeable locations, like at the well sites and at the entrance to major subdivisions served by the Company.
3. Company shall notify the Consumer Services Section of the Utilities Division of the Corporation Commission at least 12 hours prior to entering Stage 4.

Once Stage 4 has been reached, the Company must augment the supply of water by hauling or through an emergency interconnect from an approved supply or must otherwise provide emergency drinking water for its customers until a permanent solution has been implemented.

Customers who fail to comply with the above restrictions will be given a written notice to end all outdoor use. Failure to comply within two (2) working days of receipt of the notice will result in temporary loss of service until an agreement can be made to end unauthorized use of outdoor water. To restore service, the customer shall be required to pay all authorized reconnection fees. If a customer believes he/she has been disconnected in error, the customer may contact the Commission's Consumer Services Section at 1-800-222-7000 to initiate an investigation.

Applies to all WASTEWATER service areas

PART FIVE
STATEMENT OF CHARGES

I. RATES

In Decision No. XXXXX, dated XXXXX, 2018, the Commission authorized the following rates and charges to become effective August 1, 2018:

A. Monthly Minimum Charge

Residential:	Charge⁴
Residential Service	\$45.23
Multiple Unit Housing – Monthly Per Unit	41.99
Commercial/Non-Residential:	
Small Commercial – Monthly Service	\$76.50
Commercial Measured Service:	
Regular Domestic – Monthly Service Charge	\$ 42.82
Restaurants, Motels, Grocery Store & Dry Cleaning Estab. – Monthly Service	42.82*
Wigwam Resort:	
Wigwam Resort Monthly Rate – Per Room	\$ 41.99
Wigwam Resort Main Hotel Facilities – Per Month	1,662.97
Schools:	
Elementary Schools	\$1,130.81
Middle & High Schools	1,330.37
Community College	2,062.08
Effluent**	Market Rate

*Motels without restaurants included (eliminate multi-unit monthly rate provision).

**Market Rate – Maximum effluent rate shall not exceed \$430 per acre foot based on a potable water rate of \$1.32 per thousand gallons.

⁴ Low Income Tariff – A 30% discount is available on monthly minimum and commodity charges to qualified residential customers meeting the low income qualifications.

Issued: August 9, 2018

Effective: August 1, 2018

ISSUED BY:
 Matthew Garlick, President
 Liberty Utilities (Litchfield Park Water & Sewer) Corp.
 12725 W. Indian School Road, Suite D-101
 Avondale, AZ 85392
 Decision No. XXXXX

APPROVED FOR FILING
DECISION NO. 76799

Applies to all WASTEWATER service areas

PART FIVE
STATEMENT OF CHARGES**B. Commodity Charge****Commercial/Non-Residential Customers (Water Usage Data Available)***

Regular Domestic per 1,000 gallons water usage	\$3.74
Restaurants, Motels, Grocery Stores & Dry Cleaning Estab. per 1,000 gallons water usage	4.80

Commercial/Non-Residential Customers (Influent Data) **

Regular Domestic per 1,000 gallons measured influent	\$4.67
Restaurants, Motels, Grocery Stores & Dry Cleaning Estab. per 1,000 gallons measured influent	6.62

*For Commercial/Non-Residential Customers that are provided with water service from the Company or whose water usage is available to the Company from another water utility, Company shall bill non-residential customers based on water usage data provided by Liberty Utilities or water usage data provided by another local water provider. If, at any point, Company is unable to obtain actual water usage data for such commercial/non-residential customers, Company shall bill non-residential customers based on the last known, most recent usage data as a proxy. Billing shall be trued up when actual data is obtained. If no water data can be obtained, a non-residential customer may be required to install an influent meter at cost and such customers shall be billed in accordance with the influent data rates set forth above.

** For customers that are not receiving water service from the Company, and/or the Company is not receiving water usage data information from another water provider, a meter to measure influent will be installed at cost and paid by customer and such customers shall be billed in accordance with the influent data rates set forth above.

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PART FIVE
STATEMENT OF CHARGES

C. Other Service Related Charges

	<u>Charge</u>
Establishment per A.A.C. R14-2-603(D)(1)	\$20.00
Re-Establishment of Service per A.A.C. R14-2-603(D)(1)	(a)
Disconnection	At Cost (b)
Reconnection per A.A.C. R14-2-603(D)(1)	(b)
NSF Check per A.A.C. R14-2-608(E)(1)	\$25.00 (c)
Deferred Payment (per month)	1.50%
Late Charge	(d)
Service Calls After Hours	\$40.00 (e)
Deposit Requirement	(f)
Deposit Interest per A.A.C. R14-2-603(B)	6.00%
Service Lateral Connection Charge – All Sizes	(g)
Collection Main Extension Tariff per A.A.C. R14-2-606(B)	(h)
Influent Meter and Metering System Installation	At Cost (i)
Wastewater Hook-Up Fee	(j)

- (a) Minimum charge times number of months off the system, per A.A.C. R14-2-603(D)(1).
- (b) Customer shall pay the actual cost including costs for excavation and trenching, pipeline modification, sewer block, backfill and grading, road repairs and permitting. Customer will be provided copies of invoices for actual costs incurred. There shall be no charge if no work is performed.
- (c) Liberty Litchfield Park may charge only one NSF fee when customers are billed for water and sewer services on one bill.
- (d) Greater of \$5.00 or 1.50% of unpaid balance.
- (e) Customer shall be charged for after-hours service calls outside of normal working hours for work performed at customer's request or convenience.
- (f) Per A.A.C. R14-2-603(B)(7):
 Residential – two times the average bill by class.
 Commercial – two and one-half times the customer's estimated maximum monthly bill.
- (g) At cost, Customer/Developer shall install or cause to be installed all Service Laterals as a refundable advance in aid of construction.
- (h) All Main Extensions shall be completed at cost and shall be treated as refundable advances-in-aid of construction.
- (i) The cost of the influent meter and metering system installation shall be at the sole expense of the commercial and industrial user and not subject to refund.
- (j) Residential and Commercial - Customers/Developers shall pay the applicable Wastewater Hook-Up Fees per tariff.

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Applies to all WASTEWATER service areas

PART FIVE
STATEMENT OF CHARGES

II. TAXES AND ASSESSMENTS

In addition to the collection of regular rates, the Company will collect from its customers a proportionate share of any privilege, sales, and use tax per A.A.C R14-2-608(D)(5).

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Applies to all WASTEWATER service areas
PART SIX
STATEMENT OF TERMS AND CONDITIONS

I. PERMITTED COSTS

- A. Costs shall be verified by invoice.
- B. For services that are provided by the Company at cost, costs shall include labor, materials, other charges incurred, and overhead. However, prior to any such service being provided, the estimated cost of such service will be provided by the Company to the customer. After review of the cost estimate, the customer will pay the amount of the estimated cost to the Company.
- C. In the event that the actual cost is less than the estimated cost, the Company will refund the excess to the customer within 30 days after completion of the provision of the service or after Company's receipt of invoices, timesheets or other related documents, whichever is later.
- D. In the event the actual cost is more than the estimated cost, the Company will bill the customer for the amount due within 30 days after completion of the invoices, timesheets or other related documents, whichever is later. The amount so billed will be due and payable 30 days after the invoice date.
- E. At the customer's request, the Company shall make available to the customer all invoices, timesheets or related documents that support the cost for providing such service.
- F. Permitted costs shall include any Federal, State or local taxes that are or may be payable by the Company as a result of any tariff or contract for wastewater facilities under which the Customer advances or contributes funds or facilities to the Company.

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Applies to all WASTEWATER service areas
PART SIX
STATEMENT OF TERMS AND CONDITIONS

II. CUSTOMER DISCHARGE TO SYSTEM**A. Service Subject to Regulation**

The Company provides wastewater service using treatment and collection facilities that are regulated by numerous county, state and federal Statutes and Regulations. Those Regulations include limitations as to domestic strength wastewater and the type of wastewater that may be discharged into the system by any person directly or indirectly connected to the plant.

B. Waste Limitations

The Company has established the permissible limits of concentration as domestic strength wastewater and will limit concentration for various specific substances, materials, waters, or wastes that can be accepted in the sewer system, and to specify those substances, materials, waters, or wastes that are prohibited from entering the sewer system. Each permissible limit so established shall be placed on file in the business office of the Company, with a copy filed with the Commission. No person shall discharge, or cause to be discharged, any new sources of inflow including, but not limited to, storm water, surface water, groundwater, roof runoffs, subsurface drainage, cooling water, or polluted industrial process waters into the sanitary sewer. The Company will require an affidavit from all commercial and industrial customers, and their professional engineer, stating that the wastewater discharged to the system does not exceed domestic strength.

C. Inspection and Right of Entry

Every facility that is involved directly or indirectly with the discharge of wastewater to the Treatment Plant may be inspected by the Company as it deems necessary. These facilities shall include but not be limited to sewer; sewage pumping plants; all processes; devices and connection sewer; and all similar sewerage facilities. Inspections may be made to determine that such facilities are maintained and operated properly and are adequate to meet the provisions of these rules. Inspections may include the collection of samples. Authorized personnel of the Company shall be provided immediate access to all of the above facilities or to other facilities directly or indirectly connected to the Treatment Plant at all reasonable times including those occasioned by emergency conditions. Any permanent or temporary obstruction to easy access to the user's facility to be inspected shall promptly be removed by the facility user or owner at

Applies to all **WASTEWATER** service areas
PART SIX
STATEMENT OF TERMS AND CONDITIONS

the written or verbal request of the Company and shall not be replaced. No person shall interfere with, delay, resist or refuse entrance to an authorized Company representative attempting to inspect any facility involved directly or indirectly with a discharge of wastewater to the Treatment Plant. Adequate identification shall be provided by the Company for all inspectors and other authorized personnel and these persons shall identify themselves when entering any property for inspection purposes or when inspecting the work of any contractor.

All transient motor homes, travel trailers and other units containing holding tanks must arrive at the Company's service area in an empty condition. Inspection will be required of said units prior to their being allowed to hookup to the wastewater system.

D. Termination of Water Service for Violation of Wastewater Rules and Regulations

The Company is authorized to discontinue water service to any person connected to both its water and sewer systems who violates the Company's wastewater terms and conditions as set forth in this PART SIX or in any way creates a public health hazard or the likelihood of such a public health hazard. This termination authority also applies to non-payment for water or wastewater services.

E. Certain customers are also subject to additional discharge restrictions under the Wastewater Pre-Treatment Standards set forth in PART SEVEN of this Tariff of Rates and Charges.

III. RULES AND REGULATIONS

The Company has adopted the Rules and Regulations established by the Commission as the basis for its operating procedures. A.A.C. R14-2-601 through A.A.C. R14-2-610 will be controlling of Company procedures, unless specifically approved tariffs or Commission Order(s) provide otherwise.

Applies to all **WASTEWATER** service areas
PART SEVEN

PRETREATMENT STANDARDS

Issued: August 9, 2018

Effective: August 1, 2018

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<p>APPROVED FOR FILING DECISION NO. 76799</p>

PRETREATMENT PROGRAM

The objective of a Pretreatment Program (the General Pretreatment Regulations (40 CFR, Part 403) of Clean Water Act of 1977) is to protect the water quality and is designed to reduce the level of pollutants discharged by industry and other non-domestic wastewater sources into municipal sewer systems, and thereby, reduce the amount of pollutants released into the environment through wastewater. Liberty Utilities (Litchfield Park Water & Sewer) Corp. (Corporation) enforces requirements of the pretreatment program by enforcing the EPA established limits and the State or local authority on the amount of pollutants allowed to be discharged. This requires dischargers to treat their wastewater prior to its discharge in Corporation's collection system.

As specific objectives of this ordinance are outlined below:

1. To prevent the introduction of pollutants into the Corporation wastewater collection system which will interfere with the operation of the system, including the WWTP, or contaminate the resulting sludge
2. To prevent the introduction of pollutants into the Corporation wastewater collection system which will pass through the system, inadequately treated, into receiving waters or the atmosphere or otherwise be incompatible with the system
3. To improve the opportunity to recycle and reclaim waste waters and sludges from the system
4. To provide for equitable distribution of the cost of operating and maintaining the Corporation's wastewater system.

The Corporation will enforce these standards by limiting the following discharges and will review the pretreatment prior to approval of a discharge into its wastewater system:

1. Discharge of any liquids, solids or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction to cause fire or explosion or be injurious in any other way to the operation of the Corporation's WWTP, or the integrity of the sewer system or cause a danger to the public health or safety is prohibited. This prohibition includes but is not limited to waste streams with a closed cup flash point of less than one hundred forty degrees Fahrenheit or sixty degrees Centigrade using the test methods specified in federal regulations, 40 CFR 261.21.
2. Discharge of any solid or viscous substances which will or may cause obstruction to the flow in a sewer or other interference with the operation of the wastewater system is prohibited.
3. Discharge of any wastewater having a pH less than 5.5 or greater than 9.5 SU, or having any other corrosive property capable of causing damage or hazard to structures, equipment, or personnel of the system, or interference with the operation of the Corporation WWTP is prohibited.
4. Discharge of any wastewater containing hazardous substances, toxic, conventional, or non conventional pollutants in sufficient quantity, either singly or by interaction, which could injure or interfere with any wastewater treatment

process, constitutes a health or safety hazard to humans or animals, or exceed the limitations set forth in the LOCAL REGULATORY LIMITS or the categorical pretreatment standards appropriate for the specific industrial user is prohibited. Hazardous substances, toxic, conventional or non conventional pollutants will include, but not be limited to, any pollutant identified in 40 CFR 122 Appendix D Tables II, III, IV, AND V (AZPDES Permit Limits that are applicable), or substances alone or in combination with other constituents that are determined to be toxic by the toxicity test as defined in 40 CFR Part 136 for wastewater or the toxicity characteristic leaching procedure (TCLP) test as defined in 40 CFR Part 261 for biosolids.

5. Discharge of any noxious or malodorous liquids, gases or solids which, either singly or by interaction, are capable of creating a public nuisance or hazard to life or are sufficient to prevent entry into the sewers without special hazardous material protective equipment or clothing for their maintenance and repair is prohibited.
6. Discharge of any substance which may cause the WWTP effluent or treatment residues, biosolids or scums to be unsuitable for reclamation and reuse or which may interfere with such reclamation and reuse process is prohibited. In no case will a substance discharged to the WWTP cause the WWTP to be in a noncompliance with biosolids use or disposal criteria, guidelines or regulations developed under Section 405 of the Clean Water Act, any criteria, guidelines or regulations affecting biosolids uses or disposal developed pursuant to the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substances Control Act or state or local standards applicable to the biosolids management method adopted by the Corporation and/or local and state authorities.
7. Discharge of any substances which will inhibit the operation or performance of the WWTP or pass through the system and cause the WWTP to violate any requirements of any discharge permit issued by the state or federal government is prohibited.
8. Discharge of any substance with objectionable color not removed in the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, is prohibited.
9. Discharge of any wastewater having a temperature which will inhibit biological activity in the WWTP treatment plant resulting in interference; but in no case, wastewater with a temperature at the introduction into the WWTP which exceeds thirty eight degrees Celsius (one hundred degrees Fahrenheit) is prohibited.
10. Discharge of any slug load, which will mean any pollutant, including oxygen demanding pollutants (BOD, etc.), released in a single extraordinary discharge episode of such volume or strength as to cause interference to the WWTP is prohibited.
11. Discharge of any wastewater containing any radioactive wastes or isotopes of such half-life or concentration as to exceed limits established by state and federal regulations is prohibited.
12. Discharge of any wastewater which causes the WWTP effluent to exhibit toxicity to test organisms in a standard biological toxicity test as defined by local, state or federal requirements, or which the Corporation determines would be toxic to or

- impede the treatment capabilities of the biological processes in the WWTP is prohibited.
13. Discharge of any petroleum oil, non biodegradable cutting oil or products of mineral oil origin that will cause interference or pass through the WWTP is prohibited.
 14. No industrial user of the WWTP may discharge wastes or waste waters containing concentrations of pollutants higher than those listed in TABLE 1.1.

CONVENTIONAL CONTAMINANTS [mg/L]	
Biochemical Oxygen Demand (BOD)	350
Chemical Oxygen Demand (COD)	1000
Ammonia	75
Total Nitrogen- as N	100
Oil and Grease	100
Suspended Solids	350
ORGANIC CONTAMINANTS (mg/L)	
Benzene	Reserved
Ethyl Benzene	Reserved
Toluene	Reserved
Xylenes	Reserved
Reserved	Reserved
Chloroform	Reserved
Total Oil and Grease (hydrocarbons)	100.0

TRACE METALS	
PARAMETER	Daily Average Effluent Limitation (mg/L)
Arsenic (As)	0.112
Beryllium (Be)	0.008
Cadmium (Cd)	0.012
Chloride (Cl)	Reserved
Chromium (Cr)	0.238
Cobalt (Co)	Reserved
Copper (Cu)	Reserved
Cyanide (CN)	Reserved
Fluoride	9.43
Iron (Fe)	Reserved
Lead (Pb)	0.13
Manganese (Mn)	Reserved
Mercury (Hg)	0.0050
Molybdenum (Mo)	Reserved
Nickel (Ni)	0.242
Selenium (Se)	0.142
Silver (Ag)	Reserved
Sulfate (SO ₄)	Reserved
Sulfide (S)	N/A
Thallium (Tl)	0.005
Zinc (Zn)	Reserved

15. The Corporation can accept certain pollutants which are compatible with the WWTP treatment processes, however, the discharge would pay a surcharge, established on quantity, to cover the costs of such treatment.
16. Dilution of a waste is not an acceptable pretreatment strategy.

Waste Discharge Permits

A waste discharge permit is required for industrial and non-domestic wastewater generators for the following conditions:

1. Any discharger subject to National Categorical Pretreatment Standards
2. Any Significant Industrial discharge as defined by the Corporation
3. Any discharger whose discharge would be in violation with local limits in Table 1.1.
4. Any discharger by State Pretreatment requirements to obtain a permit
5. Any other discharger directed by the Corporation to apply for a permit

Permit Applications and Fees (to be developed based on site specific conditions)

Violations and enforcement (to be developed based on site specific conditions)

Penalties

Installation of Meter

The Corporation will be responsible, unless the responsibility is given to the discharger by the Corporation for the reading of water and/or wastewater meters when installed in discharger's establishment. All meters shall be installed in a manner consistent with applicable building/plumbing codes and as approved by the Corporation. All meters will be accessible to the Corporation at all times.

ORIGINAL

**LIBERTY UTILITIES
(LITCHFIELD PARK WATER & SEWER) CORP.
INDUSTRIAL PRETREATMENT PROGRAM
STANDARD OPERATING PROCEDURES**

1.1 INTRODUCTION

To control the discharge of pollutants to the Nation's waters, the Clean Water Act (CWA) requires the Environmental Protection Agency (EPA) to promulgate regulations related to discharges. Discharges from non-domestic dischargers can impact the operations of the Publicly Owned Treatment Works (POTWs) as the pollutants can pass through or interfere with the operations of the plants, threaten worker's health and safety, or contaminate sludges. POTWs are designed to treat domestic sewage. The non-domestic discharges are regulated by the National Pretreatment Program. Industrial and commercial dischargers known as IUs) are required to obtain permits or other control mechanisms to discharge wastewater to the POTW under the National Pretreatment Program. EPA promulgated the General Pretreatment Regulations (Title 40 Code of Federal Regulations [CFR] Section 403 [40 CFR 403]), which defines the National Pretreatment Program. The Arizona Administrative Code (AAC) R18-9-A905(A)(8)(b) incorporates the General Pretreatment Regulations.

Liberty Utilities (Litchfield Park Water & Sewer) Corp. operates the Palm Valley Water Reclamation Facility located at McDowell Road and Litchfield Park Road. The Palm Valley Water Reclamation Facility, capable of treating wastewater at the capacity approved by the Arizona Department of Environmental Quality (ADEQ), utilizes the Activated Sludge Process (ASP) technology with sequential batch reactors and UV disinfection. Corporation can regulate discharges from IUs for potential contaminants of concern to minimize impact on its POTW under the Corporation's CODE OF PRACTICE (LPSCO-CP-01).

The discharge of toxic and other harmful pollutants from IUs can be effectively controlled through a local pretreatment program that is based on these regulations, structured to address specific local concerns, and enforced through the Corporation Code LPSCO-CP-01.

The objectives of the pretreatment Standard Operating Procedures ("SOP") are:

- To prevent the introduction of pollutants into the Publicly Owned Treatment Works that will interfere with its operation;
- To prevent the introduction of pollutants into the Publicly Owned Treatment Works that will pass through the Publicly Owned Treatment Works, inadequately treated, into receiving waters, or otherwise be incompatible with the Publicly Owned Treatment Works;
- To protect both Publicly Owned Treatment Works personnel who may be affected by wastewater and sludge in the course of their employment and the general public;
- To promote reuse and recycling of industrial wastewater and sludge from the Publicly Owned Treatment Works;
- To provide for fees for the equitable distribution of the cost of operation, maintenance, and improvement of the Publicly Owned Treatment Works; and

ORIGINAL

- To enable Corporation to comply with its Arizona Pollutant Discharge Elimination System permit conditions, sludge use and disposal requirements, and any other Federal or State laws to which the Publicly Owned Treatment Works is subject.

These Standard Operating Procedures (SOPs) shall apply to all IUs of the Corporation POTW. The SOPs include the issuance of individual wastewater discharge permits; provides for monitoring, compliance, and enforcement activities; establishes administrative review procedures; requires IUs reporting; and provides for the setting of fees for the equitable distribution of costs resulting from the program established herein.

1.2 ADMINISTRATION

Except as otherwise provided herein, the Corporation Operations Manager shall administer, implement, and enforce the provisions of this SOP. Any powers granted to or duties imposed upon the Corporation Operations Manager may be delegated by the Corporation Operations Manager to a duly authorized Corporation employee.

1.3 ABBREVIATIONS

The following abbreviations, when used in this SOP, shall have the designated meanings:

AZPDES - Arizona Pollutant Discharge Elimination System
BOD - Biochemical Oxygen Demand
BMP - Best Management Practice
BMR - Baseline Monitoring Report
CFR - Code of Federal Regulations
CIU - Categorical Industrial User
COD - Chemical Oxygen Demand
EPA - U.S. Environmental Protection Agency
gpd - gallons per day
IU - Industrial User
mg/l - milligrams per liter
NPDES - National Pollutant Discharge Elimination System
NSCIU - Non-Significant Categorical Industrial User
POTW - Publicly Owned Treatment Works
RCRA - Resource Conservation and Recovery Act
SIU - Significant Industrial User
SNC - Significant Noncompliance
TSS - Total Suspended Solids
U.S.C. - United States Code

ORIGINAL**1.4 DEFINITIONS**

- A. Act or "the Act." The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. section 1251 et seq.
- B. Approval Authority. Arizona Department of Environmental Quality, the Arizona Administrative Code (AAC) R18-9-A905(A)(8)(b)
- C. Authorized or Duly Authorized Representative of the IU
 - (1) If the IU is a corporation:
 - (a) The president, secretary, treasurer, or a vice president of the corporation in charge of a principal 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 that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for individual wastewater discharge permit requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (2) If the IU is a partnership or sole proprietorship: a general partner or proprietor, respectively.
 - (3) If the IU is a Federal, State, or local governmental facility: a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or their designee.
 - (4) The individuals described in paragraphs 1 through 3, above, may designate a Duly Authorized Representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company and the written authorization is submitted to Corporation.
- D. Biochemical Oxygen Demand or BOD. The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures for five (5) days at 20 degrees centigrade, usually expressed as a concentration (e.g., mg/l).

ORIGINAL

- E. Best Management Practices or BMPs means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in Section 2.1 A and B [40 CFR 403.5(a)(1) and (b)] and/or the Arizona Administrative Code (AAC) R18-9-A905(A)(8)(b). BMPs include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.
- F. Categorical Pretreatment Standard or Categorical Standard. Any regulation containing pollutant discharge limits promulgated by EPA in accordance with sections 307(b) and © of the Act (33 U.S.C. section 1317) that apply to a specific category of IUs and that appear in 40 CFR Chapter I, Subchapter N, Parts 405-471.
- G. Categorical Industrial User. An IU subject to a categorical Pretreatment Standard or categorical Standard.
- H. Corporation Organizational Structure - The Operations Manager or their designee shall be responsible official who will administer this pretreatment program and the permitting process.
- I. Chemical Oxygen Demand or COD. A measure of the oxygen required to oxidize all compounds, both organic and inorganic, in water.
- J. Control Authority. Corporation
- K. Daily Maximum. The arithmetic average of all effluent samples for a pollutant collected during a calendar day.
- L. Daily Maximum Limit. The maximum allowable discharge limit of a pollutant during a calendar day. Where Daily Maximum Limits are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where Daily Maximum Limits are expressed in terms of a concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day.
- M. Environmental Protection Agency or EPA. The U.S. Environmental Protection Agency or, where appropriate, the Regional Water Management Division Director, the Regional Administrator, or other duly authorized official of said agency.
- K. Existing Source. Any source of discharge that is not a "New Source."
- L. Grab Sample. A sample that is taken from a waste stream without regard to the flow in the waste stream and over a period of time not to exceed fifteen (15) minutes.
- M. Indirect Discharge or Discharge. The introduction of pollutants into the POTW from any nondomestic source.

ORIGINAL

- N. **Daily Maximum Limit.** The maximum concentration of a pollutant allowed to be discharged at any time, determined from the analysis of any discrete or composited sample collected, independent of the industrial flow rate and the duration of the sampling event.
- O. **Interference.** A discharge that, alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the POTW, its treatment processes or operations or its sludge processes, use or disposal; and therefore, is a cause of a violation of Corporation's AZPDES permit or of the prevention of sewage sludge use or disposal in compliance with any of the following statutory/regulatory provisions or permits issued thereunder, or any more stringent State or local regulations: section 405 of the Act; the Solid Waste Disposal Act, including Title II commonly referred to as the Resource Conservation and Recovery Act (RCRA); any State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the Solid Waste Disposal Act; the Clean Air Act; the Toxic Substances Control Act; and the Marine Protection, Research, and Sanctuaries Act.
- P. **Local Limit.** Specific discharge limits developed and enforced by the Corporation upon industrial or commercial facilities to implement the general and specific discharge prohibitions listed in 40 CFR 403.5(a)(1) and (b).
- Q. **Medical Waste.** Isolation wastes, infectious agents, human blood and blood products, pathological wastes, sharps, body parts, contaminated bedding, surgical wastes, potentially contaminated laboratory wastes, and dialysis wastes.
- R. **Monthly Average.** The sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
- S. **Monthly Average Limit.** The highest allowable of "daily maximum discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
- T. **New Source.**
- (1) Any building, structure, facility, or installation from which there is (or may be) a discharge of pollutants, the construction of which commenced after the publication of proposed Pretreatment Standards under section 307© of the Act that will be applicable to such source if such Standards are thereafter promulgated in accordance with that section, provided that:
- (a) The building, structure, facility, or installation is constructed at a site at which no other source is located; or
- (b) The building, structure, facility, or installation totally replaces the process or production equipment that causes the discharge of pollutants at an Existing Source; or
- (c) The production or wastewater generating processes of the building, structure, facility, or installation are substantially independent of an Existing Source at

ORIGINAL

the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the Existing Source, should be considered.

- (2) Construction on a site at which an Existing Source is located results in a modification rather than a New Source if the construction does not create a new building, structure, facility, or installation meeting the criteria of Section (1)(b) or (c) above but otherwise alters, replaces, or adds to existing process or production equipment.
- (3) Construction of a New Source as defined under this paragraph has commenced if the owner or operator has:
 - (a) Begun, or caused to begin, as part of a continuous onsite construction program
 - (i) any placement, assembly, or installation of facilities or equipment; or
 - (ii) significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or
 - (b) Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.
- U. Noncontact Cooling Water. Water used for cooling that does not come into direct contact with any raw material, intermediate product, waste product, or finished product.
- V. Pass Through. A discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the Corporation's AZPDES permit, including an increase in the magnitude or duration of a violation.
- W. Person. Any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity, or any other legal entity; or their legal representatives, agents, or assigns. This definition includes all Federal, State, and local governmental entities.
- X. pH. A measure of the acidity or alkalinity of a solution, expressed in standard units.
- Y. Pollutant. Dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, Medical Wastes, chemical wastes, biological materials,

ORIGINAL

radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, municipal, agricultural and industrial wastes, and certain characteristics of wastewater (e.g., pH, temperature, TSS, turbidity, color, BOD, COD, toxicity, or odor).

- Z. Pretreatment. The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to, or in lieu of, introducing such pollutants into the POTW. This reduction or alteration can be obtained by physical, chemical, or biological processes; by process changes; or by other means, except by diluting the concentration of the pollutants unless allowed by an applicable Pretreatment Standard.
- AA. Pretreatment Requirements. Any substantive or procedural requirement related to pretreatment imposed on a IU, other than a Pretreatment Standard.
- BB. Pretreatment Standards or Standards. Pretreatment Standards shall mean prohibited discharge standards, categorical Pretreatment Standards, and Local Limits.
- CC. Prohibited Discharge Standards or Prohibited Discharges. Absolute prohibitions against the discharge of certain substances; these prohibitions appear in Section 2.1 of this SOP.
- DD. Publicly Owned Treatment Works or POTW. A treatment works, as defined by section 212 of the Act (33 U.S.C. section 1292), which is owned by Corporation. This definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of sewage or industrial wastes of a liquid nature and any conveyances, which convey wastewater to a treatment plant.
- EE. Septic Tank Waste. Any sewage from holding tanks such as vessels, chemical toilets, campers, trailers, and septic tanks.
- FF. Sewage. Human excrement and gray water (household showers, dishwashing operations, etc.).
- GG. Significant Industrial User (SIU). Except as provided in paragraphs (3) and (4) of this Section, a Significant Industrial User is:
- (1) An IU subject to categorical Pretreatment Standards; or
 - (2) An IU that:
 - (a) Discharges an average of twenty five thousand (25,000) gpd or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater);
 - (b) Contributes a process waste stream which makes up five (5) percent or more of the average dry weather hydraulic or organic (BOD, ammonia, and/or total nitrogen) capacity of the POTW treatment plant; or

ORIGINAL

- (c) Is designated as such by Corporation on the basis that it has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or Requirement.
 - (3) Corporation may determine that an IU subject to categorical Pretreatment Standards is a Non-Significant Categorical IU rather than a Significant IU on a finding that the IU never discharges more than 100 gallons per day (gpd) of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater, unless specifically included in the Pretreatment Standard) and the following conditions are met:
 - (a) The IU, prior to Corporation's finding, has consistently complied with all applicable categorical Pretreatment Standards and Requirements;
 - (b) The IU annually submits the certification statement required in Section 6.14 B [see 40 CFR 403.12(q)], together with any additional information necessary to support the certification statement; and
 - (c) The IU never discharges any untreated concentrated wastewater.
 - (4) Upon a finding that a IU meeting the criteria in Subsection (2) of this part has no reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or Requirement, Corporation may at any time, on its own initiative or in response to a petition received from an IU, and in accordance with procedures in 40 CFR 403.8(f)(6), determine that such IU should not be considered a Significant IU.
- HH. Slug Load or Slug Discharge. Any discharge at a flow rate or concentration, which could cause a violation of the prohibited discharge standards in Section 2.1 of this SOP. A Slug Discharge is any Discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch Discharge, which has a reasonable potential to cause Interference or Pass Through, or in any other way violate the POTW's regulations, Local Limits or Permit conditions.
- II. Storm Water. Any flow occurring during or following any form of natural precipitation, and resulting from such precipitation, including snowmelt.
- JJ. Corporation Operations Manager The person designated by Corporation to supervise the operation of the POTW, and who is charged with certain duties and responsibilities by this SOP. The term also means a Duly Authorized Representative of the Corporation Operations Manager.
- KK. Total Suspended Solids or Suspended Solids. The total suspended matter that floats on the surface of, or is suspended in, water, wastewater, or other liquid, and that is removable by laboratory filtering.
- LL. User or Industrial User. A source of indirect discharge.

ORIGINAL

MM. Wastewater. Liquid and water-carried industrial wastes and sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, which are contributed to the POTW.

NN. Wastewater Treatment Plant or Treatment Plant. That portion of the POTW which is designed to provide treatment of municipal sewage and industrial waste.

2.1 GENERAL SEWER USE REQUIREMENTS

2.2 Prohibited Discharge Standards

- A. General Prohibitions. No IU shall introduce or cause to be introduced into the POTW any pollutant or wastewater which causes Pass Through or Interference. These general prohibitions apply to all IUs of the POTW whether or not they are subject to categorical Pretreatment Standards or any other National, State, or local Pretreatment Standards or Requirements.
- B. Specific Prohibitions. No IU shall introduce or cause to be introduced into the POTW the following pollutants, substances, or wastewater:
- (1) Pollutants which create a fire or explosive hazard in the POTW, including, but not limited to, waste streams with a closed cup flashpoint of less than 140 degrees F (60 degrees C) using the test methods specified in 40 CFR 261.21;
 - (2) Wastewater having a pH less than 5.5 or more than 9.5, or otherwise causing corrosive structural damage to the POTW or equipment;
 - (3) Pollutants, including oxygen demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause Interference with the POTW;
 - (5) Wastewater having a temperature greater than 100 degrees F, or which will inhibit biological activity in the treatment plant resulting in Interference.
 - (6) Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin, in amounts that will cause Interference or Pass Through;
 - (7) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;
 - (8) Trucked or hauled pollutants, except at discharge points designated by Corporation Operations Manager in accordance with Section 3.4 of this SOP;

Pollutants, substances, or wastewater prohibited by this Section shall not be processed or stored in such a manner that they could be discharged to the POTW.

2.3 National Categorical Pretreatment Standards

IUs must comply with the categorical Pretreatment Standards found at 40 CFR Chapter I, Subchapter N, Parts 405-471.

- A. Where a categorical Pretreatment Standard is expressed only in terms of either the mass or the concentration of a pollutant in wastewater, Corporation Operations Manager may impose equivalent concentration or mass limits in accordance with Section 2.2E and 2.2F.
- B. When the limits in a categorical Pretreatment Standard are expressed only in terms of mass of pollutant per unit of production, the Corporation Operations Manager may convert the limits to equivalent limitations expressed either as mass of pollutant discharged per day or effluent concentration for purposes of calculating effluent limitations applicable to individual IUs.
- C. When wastewater subject to a categorical Pretreatment Standard is mixed with wastewater not regulated by the same Standard, Corporation Operations Manager shall impose an alternate limit in accordance with 40 CFR 403.6(e).

2.4 State Pretreatment Standards

IUs must comply with The Arizona Administrative Code (AAC) R18-9-A905(A)(8)(b) incorporates the General Pretreatment Regulations.

2.5 Local Limits

- A. The Corporation Operations Manager is authorized to establish Local Limits pursuant to 40 CFR 403.5©.
- B. The following pollutant limits are established to protect against Pass Through and Interference. No person shall discharge wastewater containing in excess of the following Daily Maximum Limits:

CONVENTIONAL CONTAMINANTS [mg/L]	
PARAMETER	Daily Average Effluent Limitation (mg/L)
Biochemical Oxygen Demand (BOD)	350
Chemical Oxygen Demand (COD)	1000
Ammonia	75
Total Nitrogen- as NO ₃	100
Oil and Grease	100
Suspended Solids	350

VOLATILE ORGANIC CONTAMINANTS (mg/L)	
PARAMETER	Daily Average Effluent Limitation (mg/L)
Benzene	Reserved
Carbon Tetrachloride	Reserved
Chlorobenzene	Reserved
Ethyl Benzene	Reserved
o-Dichlorobenzene	Reserved
Para-dichlorobenzene	Reserved
Trans-1,2-Dichloroethylene	Reserved
1,2-Dichloropropane	Reserved
Ethylbenzene	Reserved
Methylene chloride	Reserved

ORIGINAL

PARAMETER	Daily Average Effluent Limitation (mg/L)
Styrene	Reserved
Tetrachloroethylene (PCE)	Reserved
Toluene	Reserved
Total Trihalomethanes	0.60
Chloroform	Reserved
Bromoform	Reserved
Bromodichlormethane	Reserved
Chlorodibromomethane	Reserved
1,2,4-Trichlorobenzene	Reserved
1,1,1-Trichloroethane	Reserved
1,1,2-Trichloroethane	Reserved
Trichloroethylene (TCE)	Reserved
Xylenes (Total)	Reserved
Bromate	Reserved
Chlorate	Reserved
Haloacetic Acids (HAA5)	0.60
Total Oil and Grease (hydrocarbons)	100.0

PARAMETER	Daily Average Effluent Limitation(mg/L)
Arsenic (As)	0.112
Beryllium (Be)	0.008
Cadmium (Cd)	0.012
Chloride (Cl)	Reserved
Cobalt (Co)	Reserved
Copper (Cu)	Reserved
Cyanide (CN)	Reserved
Fluoride (F)	9.43
Iron (Fe)	Reserved
Lead (Pb)	0.13
Manganese (Mn)	Reserved
Mercury (Hg)	0.005
Molybdenum (Mo)	Reserved
Nitrate (NO ₃)	100
Nickel (Ni)	0.242
Selenium (Se)	0.142
Silver (Ag)	Reserved
Sulfate (SO ₄)	Reserved
Sulfide (S)	N/A
Thallium (Tl)	0.005

SYNTHETIC ORGANIC CONTAMINANTS (ppb)	
PARAMETER	Daily Average Effluent Limitation(mg/L)
Acrylamide	Total Toxic Organics (TTO) (Reserved)
Alachlor	2.0
Aldicarb	3.0
Aldicarb Sulfoxide	4.0
Aldicarb Sulfone	2.0
Atrizene	3.0
Benzo(a)pyrene (PAHs)	0.2
Carbofuran	40
Chlordane	2.0
2,4-D	70.0
Di(2-ethylhexyl) adipate	400.0
Di(2-ethylhexyl) phthalate	6.0
Dibromochloro-propane (DBCP)	0.2
Disnoseb	7.0
Diquat	20.0
Endothall	100.0
Endrin	2.0
Epichlorohydrin	TTO (Reserved)
Ethylene Dibromide (EDB)	0.05
Glyphosphate	700.0

Heptachlor	0.4
Heptachlor epoxide	0.2
Hexachlorbenzene	1.0
Hexachlorocyclopentadiene (HEX)	50.0
Lindane	0.2
Methoxychlor	40.0
Oxyamyl (Vydate)	200.0
Pentachlorophenol	1.0
Picloram	500.0
Polychlorinated biphenyls (PCBs)	0.5
Perfluoroalkyl Substances (PFAS)	Reserved
Perfluorooctane, Sulfonate (PFOS)	Reserved
Perfluorooctanecarboxylic Acid (PFOA)	Reserved
Simazine	4.0
2,3,7,8-TCDD (Dioxin)	0.00003
Toxaphene	3.0
2,4,5-TP (Silvex)	50.0

The above limits apply at the point where the wastewater is discharged to the POTW. All concentrations for metallic substances are for total metal unless indicated otherwise. Corporation Operations Manager may impose mass limitations in addition to the concentration-based limitations above.

2.6 Corporation Right of Revision

Corporation reserves the right to establish, by SOP or in individual wastewater discharge permits, more stringent Standards or Requirements on discharges to the POTW consistent with the purpose of this SOP.

2.7 Dilution

No IU shall ever increase the use of process water, or in any way attempt to dilute a discharge, as a partial or complete substitute for adequate treatment to achieve compliance with a discharge limitation unless expressly authorized by an applicable Pretreatment Standard or Requirement. Corporation Operations Manager may impose mass limitations on IU who are using dilution to meet applicable Pretreatment Standards or Requirements or in other cases when the imposition of mass limitations is appropriate.

SECTION 3 - PRETREATMENT OF WASTEWATER

3.1 Pretreatment Facilities

IUs shall provide wastewater treatment as necessary to comply with this SOP and shall achieve compliance with all categorical Pretreatment Standards, Local Limits, and the prohibitions set out in Section 2.1 of this SOP within the time limitations specified by EPA, the State, or Corporation Operations Manager, whichever is more stringent. Any facilities necessary for compliance shall be provided, operated, and maintained at the IU's expense. Detailed plans describing such facilities and operating procedures shall be submitted to Corporation Operations Manager for review, and shall be acceptable to Corporation Operations Manager before such facilities are constructed. The review of such plans and operating procedures shall in no way relieve the IU from the responsibility of modifying such facilities as necessary to produce a discharge acceptable to Corporation under the provisions of this SOP.

3.2 Additional Pretreatment Measures

- A. Whenever deemed necessary, Corporation Operations Manager may require IUs to restrict their discharge during peak flow periods, designate that certain wastewater be discharged only into specific sewers, relocate and/or consolidate points of discharge, separate sewage waste streams from industrial waste streams, and such other conditions as may be necessary to protect the POTW and determine the IU's compliance with the requirements of this SOP.

ORIGINAL

- B. Corporation Operations Manager may require any person discharging into the POTW to install and maintain, on their property and at their expense, a suitable storage and flow control facility to ensure equalization of flow. An individual wastewater discharge permit may be issued solely for flow equalization.
- C. Grease, oil, and sand interceptors shall be provided when, in the opinion of Corporation Operations Manager, they are necessary for the proper handling of wastewater containing excessive amounts of grease and oil, or sand; except that such interceptors shall not be required for residential users. All interception units shall be of a type and capacity approved by Corporation Operations Manager, shall be so located to be easily accessible for cleaning and inspection. Such interceptors shall be inspected, cleaned, and repaired by the IU at their expense.
- D. IUs with the potential to discharge flammable substances may be required to install and maintain an approved combustible gas detection meter.

3.3 Accidental Discharge/Slug Discharge Control Plans

Corporation Operations Manager shall evaluate whether each SIU needs an accidental discharge/slug discharge control plan or other action to control Slug Discharges. Corporation Operations Manager may require any IU to develop, submit for approval, and implement such a plan or take such other action that may be necessary to control Slug Discharges. Alternatively, Corporation Operations Manager may develop such a plan for any IU. An accidental discharge/slug discharge control plan shall address, at a minimum, the following:

- A. Description of discharge practices, including non-routine batch discharges;
- B. Description of stored chemicals;
- C. Procedures for immediately notifying Corporation Operations Manager of any accidental or Slug Discharge, as required by Section 6.6 of this SOP; and
- D. Procedures to prevent adverse impact from any accidental or Slug Discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants, including solvents, and/or measures and equipment for emergency response.

3.4 Hauled Wastewater

- A. Septic tank waste may be introduced into the POTW only at locations designated by Corporation Operations Manager, and at such times as are established by Corporation Operations Manager. Such waste shall not violate Section 2 of this SOP or any other requirements established by Corporation. Corporation Operations Manager may require septic tank waste haulers to obtain individual wastewater discharge permits.

- B. Corporation Operations Manager may require haulers of industrial waste to obtain individual wastewater discharge permits. Corporation Operations Manager may require generators of hauled industrial waste to obtain individual wastewater discharge permits. Corporation Operations Manager also may prohibit the disposal of hauled industrial waste. The discharge of hauled industrial waste is subject to all other requirements of this SOP.
- C. Industrial waste haulers may discharge loads only at locations designated by Corporation Operations Manager. No load may be discharged without prior consent of Corporation Operations Manager. Corporation Operations Manager may collect samples of each hauled load to ensure compliance with applicable Standards. Corporation Operations Manager may require the industrial waste hauler to provide a waste analysis of any load prior to discharge.
- D. Industrial waste haulers must provide a waste tracking form for every load. This form shall include, at a minimum, the name and address of the industrial waste hauler, permit number, truck identification, names and addresses of sources of waste, and volume and characteristics of waste. The form shall identify the type of industry, known or suspected waste constituents, and whether any wastes are RCRA hazardous wastes.

SECTION 4 - INDIVIDUAL WASTEWATER DISCHARGE PERMITS

4.1 Wastewater Analysis

When requested by Corporation Operations Manager, an IU must submit information on the nature and characteristics of its wastewater within 30 days of the request. Corporation Operations Manager is authorized to prepare a form for this purpose and may periodically require IUs to update this information.

4.2 Individual Wastewater Discharge Permit Requirement

- A. No Significant IU shall discharge wastewater into the POTW without first obtaining an individual wastewater discharge permit from Corporation Operations Manager, except that a Significant IU that has filed a timely application pursuant to Section 4.3 of this SOP may continue to discharge for the time period specified therein.
- B. Corporation Operations Manager may require other IUs to obtain individual wastewater discharge permits as necessary to carry out the purposes of this SOP.
- C. Any violation of the terms and conditions of an individual wastewater discharge permit shall be deemed a violation of this SOP and subjects the wastewater discharge permittee to the sanctions set out in Sections 10 through 12 of this SOP. Obtaining an individual wastewater discharge permit does not relieve a permittee of its obligation to comply with all Federal and State Pretreatment Standards or Requirements or with any other requirements of Federal, State, and local law.

4.3 Individual Wastewater Discharge Permitting: Existing Connections

Any IU required to obtain an individual wastewater discharge permit who was discharging wastewater into the POTW prior to the effective date of this SOP and who wishes to continue such discharges in the future, shall, within 90 days after said date, apply to Corporation Operations Manager for an individual wastewater discharge permit in accordance with Section 4.5 of this SOP, and shall not cause or allow discharges to the POTW to continue after 30 days of the effective date of this SOP except in accordance with an individual wastewater discharge permit issued by Corporation Operations Manager.

4.4 Individual Wastewater Discharge Permitting: New Connections

Any IU required to obtain an individual wastewater discharge permit who proposes to begin or recommence discharging into the POTW must obtain such permit prior to the beginning or recommencing of such discharge. An application for this individual wastewater discharge permit, in accordance with Section 4.5 of this SOP, must be filed at least 90 days prior to the date upon which any discharge will begin or recommence.

4.5 Individual Wastewater Discharge Permit Application Contents

- A. All IUs required to obtain an individual wastewater discharge permit must submit a permit application. Corporation Operations Manager may require IUs to submit all or some of the following information as part of a permit application:
- (1) Identifying Information.
 - a. The name and address of the facility, including the name of the operator and owner.
 - b. Contact information, description of activities, facilities, and plant production processes on the premises;
 - (2) Environmental Permits. A list of any environmental control permits held by or for the facility.
 - (3) Description of Operations.
 - a. A brief description of the nature, average rate of production (including each product produced by type, amount, processes, and rate of production), and standard industrial classifications of the operation(s) carried out by such IU. This description should include a schematic process diagram, which indicates points of discharge to the POTW from the regulated processes.
 - b. Types of wastes generated, and a list of all raw materials and chemicals used or stored at the facility which are, or could accidentally or intentionally be, discharged to the POTW;
 - c. Number and type of employees, hours of operation, and proposed or actual hours of operation;

- d. Type and amount of raw materials processed (average and maximum per day);
 - e. Site plans, floor plans, mechanical and plumbing plans, and details to show all sewers, floor drains, and appurtenances by size, location, and elevation, and all points of discharge;
- (4) Time and duration of discharges;
- (5) The location for monitoring all wastes covered by the permit;
- (6) Flow Measurement. Information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams, as necessary, to allow use of the combined waste stream formula set out in Section 2.2C (40 CFR 403.6(e)).
- (7) Measurement of Pollutants.
- a. The categorical Pretreatment Standards applicable to each regulated process and any new categorically regulated processes for Existing Sources.
 - b. The results of sampling and analysis identifying the nature and concentration, and/or mass, where required by the Standard or by Corporation Operations Manager, of regulated pollutants in the discharge from each regulated process.
 - c. Instantaneous, Daily Maximum, and long-term average concentrations, or mass, where required, shall be reported.
 - d. The sample shall be representative of daily operations and shall be analyzed in accordance with procedures set out in Section 6.10 of this SOP. Where the Standard requires compliance with a BMP or pollution prevention alternative, the IU shall submit documentation as required by the Corporation Operations Manager or the applicable Standards to determine compliance with the Standard.
 - e. Sampling must be performed in accordance with procedures set out in Section 6.11 of this SOP.
- (8) Any other information as may be deemed necessary by Corporation Operations Manager to evaluate the permit application.
- B. Incomplete or inaccurate applications will not be processed and will be returned to the IU for revision.

4.6 Application Signatories and Certifications

- A. All wastewater discharge permit applications, IU reports and certification statements must be signed by an Authorized Representative of the IU and contain the certification statement in Section 6.14 A. [see Section 1.4 C for definition]

- B. If the designation of an Authorized Representative is no longer accurate because a different individual or position has responsibility for the overall operation of the facility or overall responsibility for environmental matters for the company, a new written authorization satisfying the requirements of this Section must be submitted to Corporation Operations Manager prior to or together with any reports to be signed by an Authorized Representative.

4.7 Individual Wastewater Discharge Permit Decisions

Corporation Operations Manager will evaluate the data furnished by the IU and may require additional information. Within 30 days of receipt of a complete permit application, Corporation Operations Manager will determine whether to issue an individual wastewater discharge permit. Corporation Operations Manager may deny any application for an individual wastewater discharge permit.

SECTION 5 - INDIVIDUAL WASTEWATER DISCHARGE PERMIT ISSUANCE

5.1 Individual Wastewater Discharge Permit Duration

An individual wastewater discharge permit shall be issued for a specified time period, not to exceed five (5) years from the effective date of the permit. An individual wastewater discharge permit may be issued for a period less than five (5) years, at the discretion of Corporation Operations Manager. Each individual wastewater discharge permit will indicate a specific date upon which it will expire.

5.2 Individual Wastewater Discharge Permit Contents

An individual wastewater discharge permit shall include such conditions as are deemed reasonably necessary by Corporation Operations Manager to prevent Pass Through or Interference, protect the quality of the water body receiving the treatment plant's effluent, protect worker health and safety, facilitate sludge management and disposal, and protect against damage to the POTW.

A. Individual wastewater discharge permits must contain:

- (1) A statement that indicates the wastewater discharge permit issuance date, expiration date and effective date;
- (2) A statement that the wastewater discharge permit is nontransferable without prior notification to Corporation in accordance with Section 5.5 of these SOPs, and provisions for furnishing the new owner or operator with a copy of the existing wastewater discharge permit;
- (3) Effluent limits, including Best Management Practices, based on applicable Pretreatment Standards;
- (4) Self-monitoring, sampling, reporting, notification, and record-keeping requirements.

These requirements shall include an identification of pollutants (or best management practice) to be monitored, sampling location, sampling frequency, and sample type based on Federal, State, and local law.

- (5) A statement of applicable civil and criminal penalties for violation of Pretreatment Standards and Requirements, and any applicable compliance schedule. Such schedule may not extend the time for compliance beyond that required by applicable Federal, State, or local law.
 - (6) Requirements to control Slug Discharge, if determined by the Corporation Operations Manager to be necessary.
- B. Individual wastewater discharge permits may contain, but need not be limited to, the following conditions:
- (1) Limits on the average and/or maximum rate of discharge, time of discharge, and/or requirements for flow regulation and equalization;
 - (2) Requirements for the installation of pretreatment technology, pollution control, or construction of appropriate containment devices, designed to reduce, eliminate, or prevent the introduction of pollutants into the treatment works;
 - (3) Requirements for the development and implementation of spill control plans or other special conditions including management practices necessary to adequately prevent accidental, unanticipated, or non-routine discharges;
 - (4) Development and implementation of waste minimization plans to reduce the amount of pollutants discharged to the POTW;
 - (5) The unit charge or schedule of IU charges and fees for the management of the wastewater discharged to the POTW;
 - (6) Requirements for installation and maintenance of inspection and sampling facilities and equipment, including flow measurement devices;
 - (7) A statement that compliance with the individual wastewater discharge permit does not relieve the permittee of responsibility for compliance with all applicable Federal and State Pretreatment Standards, including those which become effective during the term of the individual wastewater discharge permit; and
 - (8) Other conditions as deemed appropriate by Corporation Operations Manager to ensure compliance with this SOP, and State and Federal laws, rules, and regulations.

5.3 Permit Modification

- A. Corporation Operations Manager may modify an individual wastewater discharge permit for good cause, including, but not limited to, the following reasons:
- (1) To incorporate any new or revised Federal, State, or local Pretreatment Standards or Requirements;
 - (2) To address significant alterations or additions to the IU's operation, processes, or wastewater volume or character since the time of the individual wastewater discharge permit issuance;
 - (3) A change in the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge;
 - (4) Information indicating that the permitted discharge poses a threat to Corporation POTW, Corporation personnel, or the receiving waters;
 - (5) Violation of any terms or conditions of the individual wastewater discharge permit;
 - (6) Misrepresentations or failure to fully disclose all relevant facts in the wastewater discharge permit application or in any required reporting;
 - (7) Revision of or a grant of variance from categorical Pretreatment Standards pursuant to 40 CFR 403.13;
 - (8) To correct typographical or other errors in the individual wastewater discharge permit; or
 - (9) To reflect a transfer of the facility ownership or operation to a new owner or operator where requested in accordance with Section 5.5.

5.4 Individual Wastewater Discharge Permit Transfer

Individual wastewater discharge permits may be transferred to a new owner or operator only if the permittee gives at least 60 days advance notice to Corporation Operations Manager and Corporation Operations Manager approves the individual wastewater discharge permit transfer. The notice to Corporation Operations Manager must include a written certification by the new owner or operator which:

- A. States that the new owner and/or operator has no immediate intent to change the facility's operations and processes;
- B. Identifies the specific date on which the transfer is to occur; and

ORIGINAL

- C. Acknowledges full responsibility for complying with the existing individual wastewater discharge permit.

Failure to provide advance notice of a transfer renders the individual wastewater discharge permit void as of the date of facility transfer.

5.5 Individual Wastewater Discharge Permit Revocation

Corporation Operations Manager may revoke an individual wastewater discharge permit for good cause, including, but not limited to, the following reasons:

- A. Failure to notify Corporation Operations Manager of significant changes to the wastewater prior to the changed discharge;
- B. Failure to provide prior notification to Corporation Operations Manager of changed conditions pursuant to Section 6.5 of this SOP;
- C. Misrepresentation or failure to fully disclose all relevant facts in the wastewater discharge permit application;
- D. Falsifying self-monitoring reports and certification statements;
- E. Tampering with monitoring equipment;
- F. Refusing to allow Corporation Operations Manager timely access to the facility premises and records;
- G. Failure to meet effluent limitations;
- H. Failure to pay fines;
- I. Failure to pay sewer charges;
- J. Failure to meet compliance schedules;
- K. Failure to complete a wastewater survey or the wastewater discharge permit application;
- L. Failure to provide advance notice of the transfer of business ownership of a permitted facility; or
- M. Violation of any Pretreatment Standard or Requirement, or any terms of the wastewater discharge permit or this SOP.

Individual wastewater discharge permits shall be voidable upon cessation of operations or transfer of business ownership. All individual wastewater discharge permits issued to a IU are void upon the issuance of a new individual wastewater discharge permit to that IU.

5.6 Individual Wastewater Discharge Permit Reissuance

An IU with an expiring individual wastewater discharge permit shall apply for individual wastewater discharge permit reissuance by submitting a complete permit application, in accordance with Section

4.5 of this SOP, a minimum of 90 days prior to the expiration of the IU's existing individual wastewater discharge permit.

SECTION 6 - REPORTING REQUIREMENTS

6.1 Baseline Monitoring Reports

A. Within either one hundred eighty (180) days after the effective date of a categorical Pretreatment Standard, or the final administrative decision on a category determination under 40 CFR 403.6(a)(4), whichever is later, existing Categorical IUs currently discharging to or scheduled to discharge to the POTW shall submit to Corporation Operations Manager a report which contains the information listed in paragraph B, below. At least ninety (90) days prior to commencement of their discharge, New Sources, and sources that become Categorical IUs subsequent to the promulgation of an applicable categorical Standard, shall submit to Corporation Operations Manager a report which contains the information listed in paragraph B, below. A New Source shall report the method of pretreatment it intends to use to meet applicable categorical Standards. A New Source also shall give estimates of its anticipated flow and quantity of pollutants to be discharged.

B. IUs described above shall submit the information set forth below.

(1) All information required in Section 4.5A (1) (a), Section 4.5A (2), Section 4.5A (3) (a), and Section 4.5A (6).

(2) Measurement of pollutants.

a. The IU shall provide the information required in Section 4.5 A (7) (a) through (d).

b. The IU shall take a minimum of one representative sample to compile that data necessary to comply with the requirements of this paragraph.

c. Samples should be taken immediately downstream from pretreatment facilities if such exist or immediately downstream from the regulated process if no pretreatment exists. If other wastewaters are mixed with the regulated wastewater prior to pretreatment the IU should measure the flows and concentrations necessary to allow use of the combined waste stream formula in 40 CFR 403.6(e) to evaluate compliance with the Pretreatment Standards. Where an alternate concentration or mass limit has been calculated in

ORIGINAL

accordance with 40 CFR 403.6(e) this adjusted limit along with supporting data shall be submitted to the Control Authority;

- d. Sampling and analysis shall be performed in accordance with Section 6.10;
 - e. The Corporation Operations Manager may allow the submission of a baseline report which utilizes only historical data so long as the data provides information sufficient to determine the need for industrial pretreatment measures;
 - f. The baseline report shall indicate the time, date and place of sampling and methods of analysis, and shall certify that such sampling and analysis is representative of normal work cycles and expected pollutant Discharges to the POTW.
- (3) Compliance Certification. A statement, reviewed by the IU's Authorized Representative as defined in Section 1.4 C and certified by a qualified professional, indicating whether Pretreatment Standards are being met on a consistent basis, and, if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required to meet the Pretreatment Standards and Requirements.
- (4) Compliance Schedule. If additional pretreatment and/or O&M will be required to meet the Pretreatment Standards, the shortest schedule by which the IU will provide such additional pretreatment and/or O&M must be provided. The completion date in this schedule shall not be later than the compliance date established for the applicable Pretreatment Standard. A compliance schedule pursuant to this Section must meet the requirements set out in Section 6.2 of this SOP.
- (5) Signature and Report Certification. All baseline monitoring reports must be certified in accordance with Section 6.14 A of this SOP and signed by an Authorized Representative as defined in Section 1.4C.

6.2 Compliance Schedule Progress Reports

The following conditions shall apply to the compliance schedule required by Section 6.1(B)(4) of this SOP:

- A. The schedule shall contain progress increments in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the IU to meet the applicable Pretreatment Standards (such events include, but are not limited to, hiring an engineer, completing preliminary and final plans, executing contracts for major components, commencing and completing construction, and beginning and conducting routine operation);
- B. No increment referred to above shall exceed nine (9) months;

- C. The IU shall submit a progress report to Corporation Operations Manager no later than fourteen (14) days following each date in the schedule and the final date of compliance including, as a minimum, whether or not it complied with the increment of progress, the reason for any delay, and, if appropriate, the steps being taken by the IU to return to the established schedule; and
- D. In no event shall more than nine (9) months elapse between such progress reports to Corporation Operations Manager.

6.3 Reports on Compliance with Categorical Pretreatment Standard Deadline

Within ninety (90) days following the date for final compliance with applicable categorical Pretreatment Standards, or in the case of a New Source following commencement of the introduction of wastewater into the POTW, any IU subject to such Pretreatment Standards and Requirements shall submit to Corporation Operations Manager a report containing the information described in Section 4.5A(6) and (7) and 6.1(B)(2) of this SOP. For IUs subject to equivalent mass or concentration limits established in accordance with the procedures in Section 2.2, this report shall contain a reasonable measure of the IU's long term production rate. For all other IUs subject to categorical Pretreatment Standards expressed in terms of allowable pollutant discharge per unit of production (or other measure of operation), this report shall include the IU's actual production during the appropriate sampling period. All compliance reports must be signed and certified in accordance with Section 6.14 A of this SOP. All sampling will be done in conformance with Section 6.11.

6.4 Periodic Compliance Reports

- A. Except as specified in Section 6.4.C, all IUs must, at a frequency determined by Corporation Operations Manager submit no less than once per year (January 15) report indicating the nature, concentration of pollutants in the discharge which are limited by Pretreatment Standards and the measured or estimated average and maximum daily flows for the reporting period. In cases where the Pretreatment Standard requires compliance with a Best Management Practice (BMP) or pollution prevention alternative, the IU must submit documentation required by Corporation Operations Manager or the Pretreatment Standard necessary to determine the compliance status of the IU.
- B. The Corporation may authorize an IU subject to a categorical Pretreatment Standard to forego sampling of a pollutant regulated by a categorical Pretreatment Standard if the IU has demonstrated through sampling and other technical factors that the pollutant is neither present nor expected to be present in the Discharge, or is present only at background levels from intake water and without any increase in the pollutant due to activities of the IU. [see 40 CFR 403.12(e)(2)] This authorization is subject to the following conditions:

- (1) The waiver may be authorized where a pollutant is determined to be

present solely due to sanitary wastewater discharged from the facility provided that the sanitary wastewater is not regulated by an applicable categorical Standard and otherwise includes no process wastewater.

- (2) The monitoring waiver is valid only for the duration of the effective period of the individual wastewater discharge permit, but in no case longer than 5 years. The IU must submit a new request for the waiver before the waiver can be granted for each subsequent individual wastewater discharge permit. See Section 4.5A(8).
- (3) In making a demonstration that a pollutant is not present, the IU must provide data from at least one sampling of the facility's process wastewater prior to any treatment present at the facility that is representative of all wastewater from all processes.
- (4) The request for a monitoring waiver must be signed in accordance with Section 1.4C, and include the certification statement in 6.14 A (40 CFR 403.6(a)(2)(ii)).
- (5) Non-detectable sample results may be used only as a demonstration that a pollutant is not present if the EPA approved method from 40 CFR Part 136 with the lowest minimum detection level for that pollutant was used in the analysis.
- (6) Any grant of the monitoring waiver by the Corporation Operations Manager must be included as a condition in the IU's permit. The reasons supporting the waiver and any information submitted by the IU in its request for the waiver must be maintained by the Corporation Operations Manager for 3 years after expiration of the waiver.
- (7) Upon approval of the monitoring waiver and revision of the IU's permit by the Corporation Operations Manager, the IU must certify on each report with the statement in Section 6.14 C below, that there has been no increase in the pollutant in its waste stream due to activities of the IU.
- (8) In the event that a waived pollutant is found to be present or is expected to be present because of changes that occur in the IU's operations, the IU must immediately: Comply with the monitoring requirements of Section 6.4 A, or other more frequent monitoring requirements imposed by the Corporation Operations Manager, and notify the Corporation Operations Manager.
- (9) This provision does not supersede certification processes and

requirements established in categorical Pretreatment Standards, except as otherwise specified in the categorical Pretreatment Standard.

- C. Reduced reporting is not available to IUs that have in the last two (2) years been in Significant Noncompliance, as defined in Section 9 of this SOP. In addition, reduced reporting is not available to an IU with daily flow rates, production levels, or pollutant levels that vary so significantly that, in the opinion of the Corporation Operations Manager, decreasing the reporting requirement for this IU would result in data that are not representative of conditions occurring during the reporting period.
- D. All periodic compliance reports must be signed and certified in accordance with Section 6.14 A of this SOP.
- E. All wastewater samples must be representative of the IU's discharge. Wastewater monitoring and flow measurement facilities shall be properly operated, kept clean, and maintained in good working order at all times. The failure of a IU to keep its monitoring facility in good working order shall not be grounds for the IU to claim that sample results are unrepresentative of its discharge.
- F. If a IU subject to the reporting requirement in this section monitors any regulated pollutant at the appropriate sampling location more frequently than required by Corporation Operations Manager, using the procedures prescribed in Section 6.11 of this SOP, the results of this monitoring shall be included in the report. [Note: See 40 CFR 403.12(g)(6)]

6.5 Reports of Changed Conditions

Each IU must notify Corporation Operations Manager of any significant changes to the IU's operations or system which might alter the nature, quality, or volume of its wastewater at least 90 days before the change.

- A. Corporation Operations Manager may require the IU to submit such information as may be deemed necessary to evaluate the changed condition, including the submission of a wastewater discharge permit application under Section 4.5 of this SOP.
- B. Corporation Operations Manager may issue an individual wastewater discharge permit under Section 5 of this SOP or modify an existing wastewater discharge permit under Section 5 of this SOP in response to changed conditions or anticipated changed conditions.

6.6 Reports of Potential Problems

- A. In the case of any discharge, including, but not limited to, accidental discharges,

ORIGINAL

discharges of a non-routine, episodic nature, a non-customary batch discharge, a Slug Discharge or Slug Load, that might cause potential problems for the POTW, the IU shall immediately telephone and notify Corporation Operations Manager of the incident. This notification shall include the location of the discharge, type of waste, concentration and volume, if known, and corrective actions taken by the IU.

- B. Within five (5) days following such discharge, the IU shall, unless waived by Corporation Operations Manager, submit a detailed written report describing the cause(s) of the discharge and the measures to be taken by the IU to prevent similar future occurrences. Such notification shall not relieve the IU of any expense, loss, damage, or other liability which might be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the IU of any fines, penalties, or other liability which may be imposed pursuant to this SOP.
- C. A notice shall be permanently posted on the IU's bulletin board or other prominent place advising employees who to call in the event of a discharge described in paragraph A, above. Employers shall ensure that all employees, who could cause such a discharge to occur, are advised of the emergency notification procedure.
- D. Significant Industrial IUs are required to notify the Corporation Operations Manager immediately of any changes at its facility affecting the potential for a Slug Discharge.

6.7 Reports from Unpermitted IUs

All IUs not required to obtain an individual wastewater discharge permit shall provide appropriate reports to Corporation Operations Manager as Corporation Operations Manager may require.

6.8 Notice of Violation/Repeat Sampling and Reporting

If sampling performed by a IU indicates a violation, the IU must notify Corporation Operations Manager within twenty four (24) hours of becoming aware of the violation. The IU shall also repeat the sampling and analysis and submit the results of the repeat analysis to Corporation Operations Manager within thirty (30) days after becoming aware of the violation. Resampling by the IU is not required if Corporation performs sampling at the IU's facility at least once a month, or if Corporation performs sampling at the IU between the time when the initial sampling was conducted and the time when the IU or Corporation receives the results of this sampling, or if Corporation has performed the sampling and analysis in lieu of the IU.

6.9 Notification of the Discharge of Hazardous Waste

- A. Any IU who commences the discharge of hazardous waste shall notify the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities, in writing, of any discharge into the POTW of a substance which, if

otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the IU discharges more than one hundred (100) kilograms of such waste per calendar month to the POTW, the notification also shall contain the following information to the extent such information is known and readily available to the IU: an identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the waste stream discharged during that calendar month, and an estimation of the mass of constituents in the waste stream expected to be discharged during the following twelve (12) months. All notifications must take place no later than one hundred and eighty (180) days after the discharge commences. Any notification under this paragraph need be submitted only once for each hazardous waste discharged. However, notifications of changed conditions must be submitted under Section 6.5 of this SOP. The notification requirement in this Section does not apply to pollutants already reported by IUs subject to categorical Pretreatment Standards under the self-monitoring requirements of Sections 6.1, 6.3, and 6.4 of this SOP.

- B. Dischargers are exempt from the requirements of paragraph A, above, during a calendar month in which they discharge no more than fifteen (15) kilograms of hazardous wastes, unless the wastes are acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e). Discharge of more than fifteen (15) kilograms of non-acute hazardous wastes in a calendar month, or of any quantity of acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e), requires a one-time notification. Subsequent months during which the IU discharges more than such quantities of any hazardous waste do not require additional notification.
- C. In the case of any new regulations under section 3001 of RCRA identifying additional characteristics of hazardous waste or listing any additional substance as a hazardous waste, the IU must notify Corporation Operations Manager, the EPA Regional Waste Management Waste Division Director, and State hazardous waste authorities of the discharge of such substance within ninety (90) days of the effective date of such regulations.
- D. In the case of any notification made under this Section, the IU shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.
- E. This provision does not create a right to discharge any substance not otherwise permitted to be discharged by this SOP, a permit issued thereunder, or any applicable Federal or State law.

6.10 Analytical Requirements

All pollutant analyses, including sampling techniques, to be submitted as part of a wastewater discharge permit application or report shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto, unless otherwise specified in an applicable categorical Pretreatment Standard. If 40 CFR Part 136 does not contain sampling or analytical techniques for the pollutant in question, or where the EPA determines that the Part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analyses shall be performed by using validated analytical methods or any other applicable sampling and analytical procedures, including procedures suggested by the Corporation Operations Manager or other parties approved by EPA.

6.11 Sample Collection

Samples collected to satisfy reporting requirements must be based on data obtained through appropriate sampling and analysis performed during the period covered by the report, based on data that is representative of conditions occurring during the reporting period.

- A. Except as indicated in Section B and C below, the IU must collect wastewater samples using 24 hour flow proportional composite sampling techniques, unless time proportional composite sampling or grab sampling is authorized by Corporation Operations Manager. Where time proportional composite sampling or grab sampling is authorized by Corporation, the samples must be representative of the discharge. Using protocols (including appropriate preservation) specified in 40 CFR Part 136 and appropriate EPA guidance, multiple grab samples collected during a 24 hour period may be composited prior to the analysis as follows: for cyanide, total phenols, and sulfides the samples may be composited in the laboratory or in the field; for volatile organics and oil and grease, the samples may be composited in the laboratory. Composite samples for other parameters unaffected by the compositing procedures as documented in approved EPA methodologies may be authorized by Corporation, as appropriate. In addition, grab samples may be required to show compliance with Local Limits.
- B. Samples for oil and grease, temperature, pH, cyanide, total phenols, sulfides, and volatile organic compounds must be obtained using grab collection techniques.
- C. For sampling required in support of baseline monitoring and 90 day compliance reports required in Section 6.1 and 6.3 [40 CFR 403.12(b) and (d)], a minimum of four (4) grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide and volatile organic compounds for facilities for which historical sampling data do not exist; for facilities for which historical sampling data are available, Corporation Operations Manager may authorize a lower minimum. For the reports required by paragraphs Section 6.4 (40 CFR 403.12(e) and 403.12(h)), the IU is required to collect the number of grab samples necessary to assess and assure compliance by with applicable Pretreatment Standards and Requirements.

6.12 Date of Receipt of Reports

Written reports will be deemed to have been submitted on the date postmarked or if hand delivered, date received by Corporation.

6.13 Recordkeeping

IUs subject to the reporting requirements of this SOP shall retain, and make available for inspection and copying, all records of information obtained pursuant to any monitoring activities required by this SOP, any additional records of information obtained pursuant to monitoring activities undertaken by the IU independent of such requirements, and documentation associated with Best Management Practices. Records shall include the date, exact place, method, and time of sampling, and the name of the person(s) taking the samples; the dates analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses. These records shall remain available for a period of at least three (3) years. This period shall be automatically extended for the duration of any litigation concerning the IU or Corporation, or where the IU has been specifically notified of a longer retention period by Corporation Operations Manager.

6.14 Certification Statements

- A. Certification of Permit Applications, IU Reports and Initial Monitoring Waiver: The following certification statement is required to be signed and submitted by IUs submitting permit applications in accordance with Section 4.7; IUs submitting baseline monitoring reports under Section 6.1 B (5); IUs submitting reports on compliance with the categorical Pretreatment Standard deadlines under Section 6.3; IUs submitting periodic compliance reports required by Section 6.4 A-D, and IUs submitting an initial request to forego sampling of a pollutant on the basis of Section 6.4B(4). The following certification statement must be signed by an Authorized Representative as defined in Section 1.4 C:

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 gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the 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.

- B. Annual Certification for Non-Significant Categorical Industrial IUs-A facility determined to be a Non-Significant Categorical IU by Corporation Operations Manager pursuant to 1.4 JJ and 4.7 [Note: See 40 CFR 403.3(v)(2)] must annually submit the following certification statement signed in accordance with the signatory requirements in 1.4 [Note:

ORIGINAL

See 40 CFR 403.120(l)]. This certification must accompany an alternative report required by Corporation Operations Manager:

Based on my inquiry of the person or persons directly responsible for managing compliance with the categorical Pretreatment Standards under 40 CFR , I certify that, to the best of my knowledge and belief that during the period from _____ to _____ [months, days, year]:

- (a) The facility described as _____
[facility name] met the definition of a Non-Significant Categorical IU as described in 1.4 GG; [Note: See 40 CFR 403.3(v)(2)]
- (b) The facility complied with all applicable Pretreatment Standards and requirements during this reporting period; and © the facility never discharged more than 100 gallons of total categorical wastewater on any given day during this reporting period.

This compliance certification is based on the following information.

SECTION 7 - COMPLIANCE MONITORING

7.1 Right of Entry: Inspection and Sampling

Corporation Operations Manager shall have the right to enter the premises of any IU to determine whether the IU is complying with all requirements of this SOP and any individual wastewater discharge permit or order issued hereunder. IUs shall allow Corporation Operations Manager ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and the performance of any additional duties.

- A. Where a IU has security measures in force which require proper identification and clearance before entry into its premises, the IU shall make necessary arrangements with its security guards so that, upon presentation of suitable identification, Corporation Operations Manager shall be permitted to enter without delay for the purposes of performing specific responsibilities.
- B. Corporation Operations Manager shall have the right to set up on the IU's property, or require installation of, such devices as are necessary to conduct sampling and/or metering of the IU's operations.
- C. Corporation Operations Manager may require the IU to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the IU at its own expense. All devices used to

measure wastewater flow and quality shall be calibrated [insert desired frequency] to ensure their accuracy.

- D. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the IU at the written or verbal request of Corporation Operations Manager and shall not be replaced. The costs of clearing such access shall be borne by the IU.
- E. Unreasonable delays in allowing Corporation Operations Manager access to the IU's premises shall be a violation of this SOP.

7.2 Search Warrants

If Corporation Operations Manager has been refused access to a building, structure, or property, or any part thereof, and is able to demonstrate probable cause to believe that there may be a violation of this SOP, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program of Corporation designed to verify compliance with this SOP or any permit or order issued hereunder, or to protect the overall public health, safety and welfare of the community, Corporation Operations Manager may seek issuance of a search warrant from the Maricopa County Court or other authorities as applicable.

SECTION 8 - CONFIDENTIAL INFORMATION

Information and data on a IU obtained from reports, surveys, wastewater discharge permit applications, individual wastewater discharge permits, and monitoring programs, and from the Corporation inspection and sampling activities, shall be available to the public without restriction, unless the IU specifically requests, and is able to demonstrate to the satisfaction of Corporation Operations Manager, that the release of such information would divulge information, processes, or methods of production entitled to protection as trade secrets under applicable State law. Any such request must be asserted at the time of submission of the information or data. When requested and demonstrated by the IU furnishing a report that such information should be held confidential, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public, but shall be made available immediately upon request to governmental agencies for uses related to the NPDES program or pretreatment program, and in enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics and other effluent data, as defined at 40 CFR 2.302 shall not be recognized as confidential information and shall be available to the public without restriction.

SECTION 9 - PUBLICATION OF IUS IN SIGNIFICANT NONCOMPLIANCE

Corporation Operations Manager shall publish annually, in a newspaper of general circulation that provides meaningful public notice within the jurisdictions served by Corporation, a list of the IUs which, at any time during the previous twelve (12) months, were in Significant Noncompliance with applicable Pretreatment Standards and Requirements. The term Significant Noncompliance shall

ORIGINAL

be applicable to all Significant IUs (or any other IU that violates paragraphs ©, (D) or (H) of this Section) and shall mean:

- A. Chronic violations of wastewater discharge limits, defined here as those in which sixty six percent (66%) or more of all the measurements taken for the same pollutant parameter taken during a six (6) month period exceed (by any magnitude) a numeric Pretreatment Standard or Requirement, including Instantaneous Limits as defined in Section 2;
- B. Technical Review Criteria (TRC) violations, defined here as those in which thirty three percent (33%) or more of wastewater measurements taken for each pollutant parameter during a six (6) month period equals or exceeds the product of the numeric Pretreatment Standard or Requirement including Instantaneous Limits, as defined by Section 2 multiplied by the applicable criteria (1.4 for BOD, TSS, fats, oils and grease, and 1.2 for all other pollutants except pH);
- C. Any other violation of a Pretreatment Standard or Requirement as defined by Section 2 (Daily Maximum, long term average, Instantaneous Limit, or narrative standard) that Corporation Operations Manager determines has caused, alone or in combination with other discharges, Interference or Pass Through, including endangering the health of POTW personnel or the general public;
- D. Any discharge of a pollutant that has caused imminent endangerment to the public or to the environment, or has resulted in Corporation Operations Manager's exercise of its emergency authority to halt or prevent such a discharge;
- E. Failure to meet, within ninety (90) days of the scheduled date, a compliance schedule milestone contained in an individual wastewater discharge permit or enforcement order for starting construction, completing construction, or attaining final compliance;
- F. Failure to provide within forty five (45) days after the due date, any required reports, including baseline monitoring reports, reports on compliance with categorical Pretreatment Standard deadlines, periodic self-monitoring reports, and reports on compliance with compliance schedules;
- G. Failure to accurately report noncompliance; or
- H. Any other violation(s), which may include a violation of Best Management Practices, which Corporation Operations Manager determines will adversely affect the operation or implementation of the local pretreatment program.

SECTION 10 - AFFIRMATIVE DEFENSES TO DISCHARGE VIOLATIONS**10.1 Prohibited Discharge Standards**

A IU shall have an affirmative defense to an enforcement action brought against it for noncompliance with the general prohibitions in Section 2.1(A) of this SOP or the specific prohibitions applicable of this SOP if it can prove that it did not know, or have reason to know, that its discharge, alone or in conjunction with discharges from other sources, would cause Pass Through or Interference and that either:

- A. A Local Limit exists for each pollutant discharged and the IU was in compliance with each limit directly prior to, and during, the Pass Through or Interference; or
- B. No Local Limit exists, but the discharge did not change substantially in nature or constituents from the IU's prior discharge when Corporation was regularly in compliance with its AZPDES permit, and in the case of Interference, was in compliance with applicable sludge use or disposal requirements.

10.2 Bypass

- A. For the purposes of this Section,
 - (1) Bypass means the intentional diversion of waste streams from any portion of an IU's treatment facility.
 - (2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- B. A IU may allow any bypass to occur which does not cause Pretreatment Standards or Requirements to be violated, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of paragraphs © and (D) of this Section.
- C. Bypass Notifications
 - (1) If a IU knows in advance of the need for a bypass, it shall submit prior notice to Corporation Operations Manager, at least ten (10) days before the date of the bypass, if possible.
 - (2) A IU shall submit oral notice to Corporation Operations Manager of an unanticipated bypass that exceeds applicable Pretreatment Standards within twenty four (24) hours from the time it becomes aware of the bypass. A written submission shall also be provided within five (5) days of the time the IU becomes aware of the bypass. The written submission shall contain a description of the bypass and its

ORIGINAL

cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass. Corporation Operations Manager may waive the written report on a case by case basis if the oral report has been received within twenty four (24) hours.

D. Bypass

- (1) Bypass is prohibited, and Corporation Operations Manager may take an enforcement action against a IU for a 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 downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (c) The IU submitted notices as required under paragraph (c) of this section.
- (2) Corporation Operations Manager may approve an anticipated bypass, after considering its adverse effects, if Corporation Operations Manager determines that it will meet the three conditions listed in paragraph (D)(1) of this Section.

Liberty Utilities (Litchfield Park Water & Sewer) Corp.

PRETREATMENT STANDARDS TARIFF**EXECUTIVE SUMMARY**

Liberty Utilities (Litchfield Park Water & Sewer) Corp. ("Corporation") hereby declares that the following Code of Practice has been prepared and adopted to provide for pretreatment standards in the maintenance and operation of wastewater treatment at the Palm Valley Water Reclamation Facility ("WRF"). This Code of Practice shall be filed with the Arizona Corporation Commission and made part of Corporation's Wastewater Service Tariff, Part Four, Section I.B [Waste Limitations].

Corporation hereby expressly reserves the right to make any lawful addition and/or revisions in this Code of Practice when and as they may become advisable to properly manage the WRF and to promote the peace, health, safety and welfare of the customers that will be served. This Code of Practice is supplementary to, and are not to be construed as, any abridgement of any lawful rights of the Company as outlined in the Arizona Revised Statutes governing Public Utilities (Title 40) and the Arizona Administrative Corporation Commission Rules on Sewer (Title 14, Article 6), including the right to disconnect or to refuse permission to connect a customer to the Company's wastewater system for violation of this Code of Practice or any other applicable law of the State of Arizona.

This Code of Practice incorporates pretreatment standards per 40 CFR 403, A.A.C. Title 12, Article 4, and A.A.C. Title 18, Chapter 9, Article 3. This Code of Practice is enforceable per the authority granted to wastewater utilities established under A.A.C. Title 14, Chapter 2, Article 6 of the Arizona Administrative Code.

Approved: _____

Responsible Agent: Operations

APPROVED FOR FILING
DECISION NO. 76799

Liberty Utilities (Litchfield Park Water & Sewer) Corp.

CODE OF PRACTICE (LPSCO-CP-01-DEF)

SECTION 1 – DEFINITIONS

A. PROHIBITED WASTE

Prohibited waste means:

1. Air Contaminant Waste

Any waste other than sanitary waste which, by itself or in combination with another substance, is capable of creating, causing or introducing an air contaminant outside any sewer or sewage facility or is capable of creating, causing or introducing an air contaminant within any sewer or sewage facility which would prevent safe entry by authorized personnel.

2. Flammable or Explosive Waste

Any pollutants which create a fire or explosion hazard to the sewer or any waste other than sanitary waste which, which by itself or in combination with another substance, is capable of causing or contributing to an explosion or supporting combustion in any sewer or sewage facility including, but not limited to gasoline, naphtha, propane, diesel, fuel oil, kerosene or alcohol.

3. Obstructive Waste

Any waste other than sanitary waste which, by itself or in combination with another substance, is capable of obstructing the flow of, or interfering with, the operation or performance of any sewer or sewage facility including, but not limited to: earth, sand, sweepings, gardening or agricultural waste, ash, chemicals, paint, metal, glass, sharps, rags, cloth, tar, asphalt, cement-based products, plastic, wood, waste portions of animals, fish or fowl and solidified fat.

4. Corrosive Waste

Any waste other than sanitary waste which, with corrosive properties which, by itself or in combination with any other substance, may cause damage to any sewer or sewage facility or which may prevent safe entry by authorized personnel.

5. High Temperature Waste

Any waste other than sanitary waste which, by itself or in combination with another substance, will create heat in amounts which will interfere with the operation and maintenance of a sewer or sewage facility or with the treatment of waste in a sewage facility.

Any waste other than sanitary waste which, will raise the temperature of waste entering any sewage facility to 38 degrees Celsius (100 degrees Fahrenheit) or more; or any non-domestic waste with a temperature of 65 degrees Celsius (150 degrees Fahrenheit) or more.

6. Biomedical Waste

Any of the following categories of biomedical waste: human anatomical waste, animal waste, untreated microbiological waste, waste sharps, medical products, and untreated human blood and body fluids known to contain viruses and agents.

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7. Miscellaneous Wastes

Any storm water, surface water, groundwater, roof runoff, or surface drainage is prohibited.

8. Dilution Wastes

Any discharge that has been in any way, been diluted as a substitute for pretreatment, for the purposes of obtaining compliance with any categorical standard or pretreatment requirement or any other requirement imposed by this article except where dilution is expressly authorized by an categorical standard.

9. Other Discharge Limitations

Any discharge that is transported from the point of generation to the sewer by any hauler, unless the hauler has first:

- a. Obtained authorization to discharge from the Company.
- b. Disclosed the nature, origin, and volume of the discharge.

Any waste, other than sanitary waste, which by itself or in combination with another substance:

- a. constitutes or may constitute a significant health or safety hazard to any person;
- b. Any waste other than sanitary waste which may interfere with any sewer or sewage treatment process;
- c. may cause a discharge from a sewage facility to contravene any requirements by or under any ADEQ or AZPDES discharge permit or any other act, approved Waste Minimization Plan (WMP), or any other law or regulation governing the quality of the discharge, or may cause the discharge to result in a hazard to people, animals, property or vegetation;
- d. may cause bio-solid to fail criteria for beneficial land application.

B. RESTRICTED WASTE (LPSCO-CP-01-001)

Restricted waste means:

1. Specified Waste

Any waste other than sanitary waste which, at the point of discharge into a sewer, contains any contaminant at a concentration in excess of the limits set out below. All concentrations are expressed as total concentrations which includes all forms of the contaminant, whether dissolved or un-dissolved. The concentration limits apply to both grab and composite samples. Contaminant definitions and methods of analysis are outlined in standard methods.

CONVENTIONAL CONTAMINANTS (mg/L)	
Biochemical Oxygen Demand (BOD)	350
Chemical Oxygen Demand (COD)	1000
Ammonia	75
Total Nitrogen- as NO ₃	100
Oil and Grease	100
Suspended Solids	350

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ORGANIC CONTAMINANTS (mg/L)	
Benzene	Reserved
Ethyl Benzene	Reserved
Toluene	Reserved
Xylenes	Reserved
Reserved	Reserved
Chloroform	Reserved
Total Oil and Grease (hydrocarbons)	100.0
TRACE METALS	
PARAMETER	DAILY AVERAGE (mg/L)
Arsenic	0.112
Beryllium	0.008
Cadmium (Cd)	0.012
Chloride (Cl)	Reserved
Chromium (Cr)	0.238
Cobalt (Co)	Reserved
Copper (Cu)	Reserved
Cyanide (CN)	Reserved
Fluoride	9.43
Iron (Fe)	Reserved
Lead (Pb)	0.13
Manganese (Mn)	Reserved
Mercury (Hg)	0.0050
Nitrate	100
Molybdenum (Mo)	Reserved
Nickel (Ni)	0.242
Selenium (Se)	0.142
Silver (Ag)	Reserved
Sulfate (SO ₄)	Reserved
Sulfide (S)	N/A
Thallium	0.005
Zinc (Zn)	Reserved

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2. Food Waste

Any solid or viscous pollutants, animal fats, oil, and grease (FOG) in amounts that may cause obstruction to the flow in sewers or pass through or other interference or damage to the sewer collection system. Any pollutant, including oxygen demanding pollutants (BOD, COD, TOC, etc.) released in a discharge flow at a rate and/or pollutant concentration which may cause interference with the sewer collection system or wastewater treatment process. This also includes petroleum oil, non-biodegradable cutting oil, or other products of mineral oil origin in amounts that may cause interference or pass through at the wastewater treatment facility.

3. Radioactive Waste

Any discharge containing a toxic, radioactive, poisonous or other substances in which sufficient quantity to cause or have the potential to cause injury or damage to a person or property or interference with any sewage treatment process, cause corrosive structural damage, constitute a hazard to humans or create any hazard to the sewer system or the effluent of the sewer system. All such wastes shall be subject to compliance with Nuclear Regulatory Commission standards for sewer disposal including the Unity Equation. Radioactive waste industrial users shall be treated in accordance with applicable federal and state regulations and guidelines, including section 40 of the Code of Federal Regulations.

4. pH Waste

Any discharge with a pH less than 5.5 standard units (SU) or greater than 9.5 SU as determined by either a grab or a composite sample.

5. Dyes and Coloring Material

Dyes or coloring materials which may pass through a sewage facility and discolor the effluent from a sewage facility except where the dye is used by the Sewer Company, or one or more of its agents, as a tracer.

6. Miscellaneous Restricted Wastes

Any of the following wastes:

- a. 4,4' - DDE
- b. 4,4' - DDT
- c. Aldrin
- d. BHC—Alpha
- e. BHC—Beta
- f. BHC—Gamma (Lindane)
- g. Heptachlor.
- h. Heptachlor epoxide.
- i. Polychlorinated biphenyl compounds (PCB's)
- j. chlorinated phenols¹
- k. pesticides
- l. herbicides
- m. tetrachloroethylene
- n. polynuclear aromatic hydrocarbons (PAH's)²

¹ include: chlorophenol (ortho, meta, para); dichlorophenol (2,3, 2,4-, 2,5-, 2,6-, 3,4-, 3,5-); trichlorophenol (2,3,4-, 2,3,5-, 2,3,6-, 2,4,5-, 2,4,6-, 3,4,5-); tetrachlorophenol (2,3,4,5-, 2,3,4,6-, 2,3,5,6-); pentachlorophenol

² includes: naphthalene benzo(a)anthracene; acenaphthylene chrysene; acenaphthene benzo(k)fluoranthene; fluorene benzo(k)fluoranthene; phenanthrene benzo(a)pyrene; anthracene dibenzo(a,h)anthracene; fluoranthene indeno(1,2,3-cd)pyrene; pyrene benzo(g,h,i)perylene

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7. Temperature

Any waste other than sanitary waste which, will raise the temperature of waste entering any sewage facility to 38 degrees Celsius (100 degrees Fahrenheit) or more; or any non-domestic waste with a temperature of 65 degrees Celsius (150 degrees Fahrenheit) or more.

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Liberty Utilities (Litchfield Park Water & Sewer) Corp.

CODE OF PRACTICE (LPSCO-CP-01-002)

SECTION 2 - DENTAL OPERATIONS

I. APPLICATION

This code of practice for dental operations defines mandatory requirements for managing non-domestic waste discharged directly or indirectly into a sewer connected to a sewage facility.

This code of practice applies to dental operations.

II. DISCHARGE REGULATIONS

An operator of a dental operation must not discharge waste which, at the point of discharge into a sewer, contains:

- a. prohibited waste, special waste, or storm water ; or
- b. restricted waste with the exception of mercury measured at the point of discharge from a certified amalgam separator.

An operator of a dental operation that produces liquid waste from photographic imaging containing silver shall comply with the requirements of LPSCO-CP-01-001.

An operator of a dental operation that produces wastewater containing dental amalgam must either:

- a. collect and transport the wastewater from the dental operation for off-site waste management; or
- b. treat the wastewater at the dental operation site prior to discharge to the sewer using a certified amalgam separator.

An operator of a dental operation must install and maintain the amalgam separator according to the manufacturer's or supplier's recommendations in order that the amalgam separator functions correctly. Such separator must be certified for use by the manufacturer.

An operator of a dental operation who installs an amalgam separator must ensure that:

- a. all dental operation wastewater that contains dental amalgam is treated using the amalgam separator;
- b. a monitoring point is installed at the outlet of the amalgam separator or downstream of the amalgam separator at a location upstream of any discharge of other waste;
- c. the monitoring point must be installed in such a manner that the total flow from the amalgam separator may be intercepted and sampled; and
- d. the monitoring point shall be readily and easily accessible at all times for inspection.

If the amalgam separator is located downstream of a wet vacuum system, an operator of a dental operation must ensure that:

- a. the wet vacuum system is fitted with an internal flow control fitting; or
- b. a flow control fitting is installed on the water supply line to the wet vacuum system.

The flow control fitting must be sized to limit the flow to a rate that is no more than the maximum inlet flow rate of the amalgam separator as stated by the manufacturer of the amalgam separator.

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An operator of a dental operation must locate an amalgam separator in such a manner that an accidental spill, leak or collecting container failure will not result in waste containing amalgam entering any sewer. If a location is not available, an operator of a dental operation must do one of the following:

- (a) install spill containment to contain spills or leaks from the amalgam separator; or
- (b) cap all floor drains into which liquid spilled from the amalgam separator would normally flow.

An operator of a dental operation must replace the amalgam separator's collecting container when any one of the following occurs:

- (a) the manufacturer's or supplier's recommended expiry date, as shown on the amalgam separator, has been reached; or
- (b) the warning level specified by the manufacturer has been reached; or
- (c) analytical data obtained using a method of analysis outlined in standard methods, or an alternative method of analysis approved by the manager, having a method detection limit of 0.0000005 mg/L or lower, indicates that the total concentration of mercury in the discharge from the amalgam separator is greater than, or equal to 0.005 mg/L.

An operator of a dental operation shall not dispose of dental amalgam collected in an amalgam separator, a collecting container, or any other device, to a sewer.

III. RECORD KEEPING AND RETENTION

An operator of a dental operation that uses an amalgam separator must keep, at the site of installation of the amalgam separator, an operation and maintenance manual containing instructions for installation, use, maintenance and service of the amalgam separator installed.

An operator of a dental operation that uses an amalgam separator must post, at the site of installation of the amalgam separator, a copy of the manufacturer's standard test report pertaining to the amalgam separator installed.

An operator of a dental operation that uses an amalgam separator must keep a record book at the dental operation site that includes the following information pertaining to the amalgam separator installed:

- a. date of installation of the amalgam separator and name of the installation service provider;
- b. serial number and expiry date of the amalgam separator and/or its components;
- c. maximum recommended flow rate through the amalgam separator, where applicable;
- d. dates of inspection, maintenance, cleaning and replacement of any amalgam separation equipment or components;
- e. dates and descriptions of all operational problems, spills, leaks or collecting container failures associated with the amalgam separator and remedial actions taken;
- f. name, address and telephone number of any person or company who performs any maintenance or disposal services related to the operation of the amalgam separator; and
- g. dates of pick-up of the collecting container for off-site disposal, volume of waste disposed and the location of disposal.

The records must be retained for a period of two years and must be available on request by an company representative.

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Liberty Utilities (Litchfield Park Water & Sewer) Corp.

CODE OF PRACTICE (LPSCO-CP-01-003)

SECTION 3 - DRY CLEANING OPERATIONS

I. APPLICATION

This code of practice for Dry Cleaning operations defines the requirements for managing waste discharged directly or indirectly into a sewer connected to a sewage facility from dry cleaning businesses, or other facilities employing solvent or chemical cleaning routines.

Definitions are included in LPSCO-CP-01-DEF.

II. DISCHARGE REGULATIONS

An operator of a dry cleaning operation must not discharge waste, which at the point of discharge into a sewer contains:

- (a) Tetrachloroethylene and Perchloroethylene is prohibited;
- (b) Petroleum solvent in a concentration that is in excess of 15 milligrams per liter as analyzed in a grab sample; and
- (c) Prohibited waste, restricted waste, special waste, storm water, or contaminated water.

An operator of a dry cleaning operation that generates wastewater containing petroleum solvent shall either:

- (a) Collect and transport the wastewater from the dry cleaning operation for off site waste management; or
- (b) Install and maintain a solvent/water separator and holding tank in accordance with this code of practice.

Solvent Water Separators and Holding Tanks

Solvent/water separator and holding tank installations must conform to the requirements of this code of practice.

An operator of a dry cleaning operation shall not directly discharge wastewater from the solvent/water separator to a sewage facility

An operator of a dry cleaning operation must:

- (a) Collect the wastewater discharged from a solvent/water separator into a transparent, solvent-compatible, holding tank with a containment capacity 25% larger than the total volume of the solvent/water separator; and
- (b) Allow the wastewater to stand undisturbed for a period of not less than 12 hours following each operating date.

An operator of a dry cleaning operation must check the contents of the holding tank after the specified period of time has elapsed to determine whether the wastewater contains any visible residual solvent. If there is no visible residual solvent in the holding tank, the contents may be discharged to the sewer.

If the holding tank contains any visible tetrachloroethylene or petroleum solvent after the specified period of time, then the tetrachloroethylene or petroleum solvent must be separated and returned to the solvent recovery system. After the removal of all visible solvent, the wastewater may be discharged to the sanitary sewer.

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Visual Inspections

An operator of a dry cleaning operation must:

- (a) Visually inspect the solvent/water separator on a daily basis and
- (b) Clean the solvent/water separator at least once every seven (7) days to manufacturer's standards.

Spills and Leaks

An operator of a dry cleaning operation must install spill containment facilities in all chemical storage areas and around all dry cleaning machines.

An operator of a dry cleaning operation must block off all sewer drains within the containment area for chemical storage and dry cleaning equipment to prevent any accidental discharge of solvent to a sewer.

An operator of a dry cleaning operation must inspect all dry cleaning equipment for liquid leaks at least once per day.

An operator of a dry cleaning operation must keep all equipment clean to ensure that leaks are visible. The following areas and items are to be checked for leaks:

- (i) hose connections, unions, couplings and valves
- (ii) machine door gasket and seating
- (iii) filter head gasket and seating
- (iv) pumps
- (v) base tanks and storage
- (vi) solvent/water separators
- (vii) filter sludge recovery
- (viii) distillation unit
- (ix) diverter valves
- (x) saturated lint in lint baskets
- (xi) holding tanks
- (xii) cartridge filters

An operator of a dry cleaning operation who detects any liquid leak from dry cleaning equipment or chemical storage must repair the leak within 72 hours and must immediately prevent any discharge of contaminants to a sewer.

III. RECORD KEEPING AND RETENTION

Every dry cleaning operation must keep a record book on site for inspection with records from the previous two years.

The following information shall be recorded in the record book:

- (i) record of all inspections done by the operator, employees or other hired personnel;
- (ii) record of any liquid leaks detected and remedial action taken;
- (iii) record of solvent/water separator cleaning;
- (iv) record of holding tank cleaning and solvent transfer; and
- (v) record of all other equipment maintenance and repair.

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Liberty Utilities (Litchfield Park Water & Sewer) Corp.

CODE OF PRACTICE (LPSCO-CP-01-004)

SECTION 4 - FOOD SERVICE OPERATIONS

I. APPLICATION

This code of practice for Food Service operations defines the requirements for managing waste discharged directly or indirectly into a sewer connected to a sewage facility from restaurants, or other facilities employing food service (such as food preparation services) as a primary or secondary business operation. Traps, interceptors and separators shall be provided to prevent the discharge of oil, grease, sand and other substances harmful or hazardous to the building drainage system, the collection system the private sewage disposal system or the sewage treatment plant or processes.

Traps, interceptors and separators shall be installed:

- (a) operators of a food services operation that adds kitchen equipment that discharges oil and grease;
- (b) operators of a food services operation that discharges non-domestic waste to sewer that exceeds any of the restricted waste criteria specified in LPSCO-CP-01-DEF; or
- (c) any food service operation, as determined by Corporation's wastewater operations group.
- (d) at new facilities
- (e) at existing food service facilities, not equipped with a trap, interceptor or separator, when additions, alterations or remodel are done which increase servicing volume, seating capacity, etc.
- (f) at existing food service facilities, equipped with a trap, interceptor or separator, when additions, alterations or remodel are done which increase servicing volume, seating capacity, changes to the menu, etc.
- (g) at any non-food facilities when additions, alterations, or remodeling is proposed for the purpose of food preparation and service.
- (h) at existing facilities not equipped with a trap, interceptor or separator, which is proposed for the purpose of food preparation and service.

Definitions are included in LPSCO-CP-01-DEF.

II. DISCHARGE REGULATIONS

An operator of a Food Service Operation must not discharge waste, which at the point of discharge into a sewer, contains:

- 1. oil and grease in a concentration that is in excess of 100 milligrams per liter as analyzed in a grab sample;
- 2. suspended solids in a concentration that is in excess of 350 milligrams per liter as analyzed in a grab sample;
- 3. 5-day biochemical oxygen demand (BOD₅) in a concentration that is in excess of 350 milligrams per liter in a grab sample;
- 4. prohibited waste, restricted waste, special waste, storm water, or contaminated water.

III. GREASE INTERCEPTORS

Grease interceptors are required to be installed and maintained by the Owner of food service operations within the collection system of Corporation facilities. Grease interceptor installations shall conform to the requirements of this code of practice.

Interceptors, such as grease, oil, or sand shall be provided by laundries, restaurants, service stations, auto repair shops, carwashes and other industrial users when, in the opinion of Corporation, interceptors are necessary for the proper handling of wastewater containing oil and grease or sand or any flammable wastes. Such interceptors shall not be required for domestic users.

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Construction:

All traps, interceptors and separators shall be constructed of impervious materials capable of withstanding abrupt and extreme changes in temperature. New or upgraded grease device shall have a three-lid manhole, properly sized per Table 1. Traps, interceptors and separators shall be watertight, and equipped with easily removable covers. Covers shall be gastight and watertight.

Cleaning and Maintenance:

Cleaning and maintenance must be performed when total volume of captured oil, grease and solids material displaces more than twenty-five (25) percent of the total volume of the trap, interceptor or separator or when the pH of a sample taken from the effluent side of the interceptor drops below 5.0 or when odor generation becomes a health issue or when the Company inspection determines a cleaning is necessary.

Maintenance Records:

All traps, interceptors and separators shall be maintained by the user in efficient operating condition at all times. Written records and documentation of all cleaning, repair, calibration, and maintenance shall be maintained at the facility for a minimum of three (3) years and be made available upon request.

Maintenance Inspection:

All traps, interceptors and separators shall be inspected by Corporation representative during normal working hours. Inspection results shall be made available to person, firm or corporation in reasonable charge of the traps, interceptors and separators. Corporation representative shall require correction in order to enforce Corporation pretreatment code of practices.

Skimming:

Skimming, decanting or discharging of removed waste or wastewater back into any traps, interceptors and separators or any appurtenance of the wastewater collection system is strictly prohibited.

Pumping:

All oil, sand and grease interceptors shall be pumped out or cleaned out completely not less than once every ninety (90) calendar days. Grease traps must be cleaned out completely not less than once every thirty (30) calendar days. Traps and interceptors shall be cleaned more frequently when necessary or required.

Bacteria as a Substitute:

The use of bacteria additives as a supplement to maintenance may be authorized by Corporation when a written request is made to the Corporation which includes material safety data sheets. The addition of emulsifiers, de-emulsifiers, surface active agents, enzymes, or degreasers directly or into any drain leading to any grease removal device is strictly prohibited unless approved by the Corporation.

Use:

Traps, interceptors and separators shall be single user only. When an interceptor can be safely used by multiple users (e.g., food courts), multiple users may be allowed when approved by Corporation. Multiple facilities operated by the same person, firm or corporation may be allowed to connect to a single interceptor with approval from Corporation. The person, firm or corporation in reasonable charge of the trap, interceptor or separator shall take any and all steps necessary to assure adequacy which includes repair, modification or replacement.

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Alternate Devices and Technology:

Alternative devices and technologies shall be submitted to Corporation for approval before any such device is installed. The service facility will be required to furnish analytical data demonstrating the effluent discharge concentration to Corporation wastewater collection system will not exceed those listed in LPSCO-CP-01-001.

Sizing:

All traps, interceptors and separators shall be properly sized per Table 1. When an interceptor is sized less than five hundred (500) gallons or more than two thousand five hundred (2,500) gallons, the person, firm or corporation making the permit application shall first meet with the Corporation to verify the reduced or increased size has been correctly calculated and that no other options are available.

Size Modification:

Modifying the size of any trap or interceptor shall only be done when sizing per Table 1 allows the modification. Modifying the size of any trap or interceptor shall not be done without the approval of Corporation.

Domestic Wastewater:

Domestic wastewater shall not be discharged to the interceptor.

Minimization Plan:

All facilities required to install and operate a trap, interceptor or separator shall develop and implement a Waste Minimization Plan pertaining to the disposal of grease, oils, and food bearing wastes.

Best Management:

All establishments requiring a trap, interceptor or separator shall adopt BMP's (Best Management Practices) for handling sources of floatable oils, fat or grease originating within their facility. Proof of employee training in BMP's shall be shown to Corporation upon request.

Other Fixtures:

Toilets, urinals, and other similar fixtures shall not discharge through a grease interceptor.

Minimization Program:

The applicant shall establish and submit a written waste minimization plan (maintenance program) outlining specific methods (Best Management Practices) that the facility will use on a daily basis to reduce the discharge of oil and grease as well as solids from entering the interception device and ultimately, the Corporation sewer system. This plan shall be acceptable to and approved by the Corporation. The approved document shall accompany the permit application.

Discharge Permit:

This document will be used in lieu of a discharge permit to assist with enforcing all Corporation codes of practices.

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DECISION NO. 76799

Grease interceptors and automatic grease removal devices required:

A grease interceptor or automatic grease removal device shall be required to receive the drainage from fixtures and equipment with grease-laden waste located in food preparation areas, such as in restaurants, hotel kitchens, hospitals, school kitchens, bars, factory cafeterias, caterers, nursing homes, day care center, churches and clubs. Fixtures and equipment shall include pot sinks, pre-rinse sinks; soup kettles or similar devices; work stations; floor drains or sinks into which kettles are drained; automatic hood wash units and dishwashers without pre-rinse sinks. Grease interceptors and automatic grease removal devices shall receive waste only from fixtures and equipment that allow fats, oils or grease to be discharged. Interceptors, such as grease, oil or sand shall be provided at laundries, restaurants, service stations, auto repair shops, carwashes and other industrial users when the proper handling of wastewater containing oil and grease or sand or any flammable wastes is necessary.

Location:

All Interceptors shall be approved and shall be located to be readily and easily accessible for cleaning and inspection.

Food waste grinder:

Where food waste grinders connect to grease interceptors, a solids interceptor shall separate the discharge before connecting to the grease interceptor. Solids interceptors and grease interceptors shall be sized and rated for the discharge of the food waste grinder. Emulsifiers, chemicals, enzymes and bacteria shall not discharge into the food waste grinder. Corporation shall require any user to cease operation of a garbage grinder and permanently remove such equipment when it is determined that the grinder is imposing any adverse effect on interceptor function.

Grease interceptor capacity:

Grease interceptors shall have the grease retention capacity indicated in Table 1 for the flow-through rates indicated. Corporation shall make determinations of interceptor adequacy and need, based on review of all relevant information regarding interceptor performance, facility site and building plan review and to require repairs to, modifications, or replacement of such traps.

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DECISION NO. 76799

TABLE 1 - CAPACITY OF GREASE INTERCEPTORS - EPA-2 Model

A. Determine maximum drainage flow from fixtures:					
Type of Fixture	Total Fixtures		Flow Rate		Amount
Restaurant kitchen sink	_____	X	15 gpm	=	_____
Single compartment sink	_____	X	20 gpm	=	_____
Double compartment sink	_____	X	25 gpm	=	_____
2, single compartment sinks	_____	X	25 gpm	=	_____
2, double compartment sinks	_____	X	35 gpm	=	_____
Triple sink 1.5 inch drain	_____	X	35 gpm	=	_____
Triple sink 2 inch drain	_____	X	50 gpm	=	_____
30 gallon dishwasher	_____	X	15 gpm	=	_____
50 gallon dishwasher	_____	X	25 gpm	=	_____
50-100 gallon dishwasher	_____	X	40 gpm	=	_____
B. Total	Number of fixtures			=	_____ gpm
C. Loading Factors					
Restaurant type	Fast food-paper delivery			=	.50
	Low volume			=	.50
	Medium volume			=	.75
	High Volume			=	1.0
D. $B \times C = D$, subtotal					
E. $D \times 60 = \text{Subtotal} \times 60 \text{ minutes} = E$, maximum flow for one (1) hour, in gallons					
F. $E \times 2 = \text{maximum flow for one hour times two (2) hours retention time (based on restaurant volume)} = F$, volume of trap in gallons = _____					

Access and maintenance of traps, interceptors, and separators:

Complete access shall be provided to each interceptor and separator for service, maintenance and inspection of the inner chamber(s) and viewing and sampling of effluent wastewater discharged to the sewer. Interceptors and separators shall be maintained by periodic removal of accumulated grease, scum, oil, or other floating substances and solids deposited in the interceptor or separator.

Periodic Inspection:

All traps, interceptors and separators shall be subject to periodic inspections by Corporation during normal operating hours. These inspections can be based on an annual inspection or when a complaint is registered with Corporation regarding a grease-removal device. Should the inspection of any trap, interceptor or separator indicate a violation of any item in (1) thru (3) below, the person, firm or corporation in reasonable charge shall bring the device into compliance within the timeframe noted on the notice of violation, but not longer than fourteen (14) calendar days.

- (1) If twenty-five (25) percent of the interceptor is full; both surface (oil and grease) and bottom (solids).
- (2) When OSHA (Occupational, Safety and Health Administration) atmospheric levels of Hydrogen Sulfide limits have been exceeded - "Short Term Exposure Limit" (STEL) of fifteen (15) ppm over a fifteen-minute time-weighted average. When the "Immediately Dangerous to Life and Health" (IDLH) level is 100 ppm or above, immediate action

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shall be performed to return the level of Hydrogen Sulfide to safe and acceptable limits. If the violation cannot be immediately resolved, all use of the Trap, Interceptor or Separator shall cease until compliance is obtained.

(3) When pH in the effluent chamber falls below 5.0 - which is an unhealthy anaerobic interceptor condition.

Maintenance:

Any trap, interceptor or separator not adequately maintained to prevent floatable oils, fat or grease from entering the sewerage system or produce excessive odors shall be in violation of Corporation codes of practice.

Clearing Obstructions:

Corporation shall take appropriate action to clear any obstruction of the Corporation sewer that causes a sewer overflow. When the obstruction is found to be caused by an over-burdened or non-maintained trap, interceptor or separator, the person, firm or corporation in reasonable charge of the trap, interceptor or separator reimbursement of Corporation costs associated with clean-up efforts including any fines leveled against Corporation. Any establishments that continuously violate Corporation code of practice shall be subject to having sewer service discontinued.

Contain and/or Clean Up:

Should Corporation find it necessary to contain and/or clean up a private sanitary sewer overflow caused by blockage of private or public sewer lateral or system, all associated cost shall be the responsibility of the person, firm or corporation in reasonable charge of the property.

Repairs or Replacements:

When repairs or replacements are necessary to a trap, interceptor or separator, all repairs or replacements shall be completed within the time frame stated on the notice to comply. Corporation may authorize an time extension, not to exceed thirty (30) days, for justifiable cause.

Grease Removal:

The person, firm or corporation in reasonable charge shall remove and dispose of grease at a facility permitted to receive and process such waste. Cleaning frequencies shall be dependent on the amount of oil, grease or solids generated at each operation, the size of the grease trap or interceptor, and the approved written waste minimization program, but not to exceed thirty-day intervals for traps and ninety-day intervals for interceptors. Traps and interceptors shall be cleaned by a licensed contractor.

Interference, Operation and Odors:

Any facility whose effluent discharge into the sewerage system causes interference in the conveyance system, operation of the sewerage system, or emits excessive odors shall be required to sample the discharge from the trap, interceptor or separator and have it analyzed for oil and grease and sulfides, total and dissolved. Results of the analysis shall be immediately reported. Corporation may sample the grease interception device at any time, utilizing Corporation representatives. The person, firm or corporation in reasonable charge shall be responsible for any and all associated cost of such testing or sampling.

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DECISION NO. 76799**

IV. RECORD KEEPING AND RETENTION

An operator of a food services operation must keep a record at the food services operation of all grease interceptor inspection and maintenance activities including:

- (a) the date of inspection or maintenance;
- (b) the maintenance conducted;
- (c) the type and quantity of material removed from the grease interceptor; and
- (d) the location of disposal of the material removed from the grease interceptor.

The records shall be retained for a period of three years, and shall be available on request by an company representative.

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Liberty Utilities (Litchfield Park Water & Sewer) Corp.

CODE OF PRACTICE (LPSCO-CP-01-005)

SECTION 5 - PHOTOGRAPHIC IMAGING OPERATIONS

I. APPLICATION

This code of practice for photographic imaging operations defines mandatory requirements for managing non-domestic waste discharged directly or indirectly into a sewer connected to a sewage facility.

This code of practice applies to photographic imaging operations. Definitions are included in LPSCO-CP-01-DEF.

II. DISCHARGE REGULATIONS

An operator of a photographic imaging operation must not discharge waste which, at the point of discharge into a sewer, contains:

- (a) silver in a concentration that is in excess of prescribed local limit analyzed in a grab sample; or,
- (b) prohibited waste, restricted waste, special waste, storm water, or contaminated water as defined in LPSCO-CP-01-DEF.

An operator of a photographic imaging operation that produces liquid waste containing silver must either:

- (a) collect and transport the waste from the photographic imaging operation for off-site waste management; or
- (b) treat the waste at the photographic imaging operation site prior to discharge to the sewer using one of the following silver recovery technologies:
 - (i) two chemical recovery cartridges connected in a series;
 - (ii) an electrolytic recovery unit followed by two chemical recovery cartridges connected in series; or
 - (iii) any other silver recovery technology, or combination of technologies, capable of reducing the concentration of silver in the waste to 1.2 mg/L or less where valid analytical test data has been submitted to, and accepted by, the Corporation wastewater group.

An operator of a photographic imaging operation must install and maintain silver recovery technology according to the manufacturer's or supplier's recommendations.

An operator of a photographic imaging operation must collect all liquid waste containing silver in a holding tank and must deliver this waste to the chemical recovery cartridges using a metering pump.

An operator of a photographic imaging operation must calibrate the metering pump at least once per year.

Spill/Leak Prevention

An operator of a photographic imaging operation must locate the silver recovery system in such a manner that an accidental spill, leak or container failure will not result in liquid waste containing silver in concentrations greater than 1.2 mg/l. entering any sewer.

If a location referred to above is not available, an operator of a photographic imaging operation must do one of the following:

- (a) install spill containment to contain spills or leaks from the silver recovery system; or
- (b) cap all floor drains into which liquid spilled from the silver recovery system would normally flow.

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Testing

When using two separate chemical recovery cartridges, an operator of a photographic imaging operation must test the discharge from the first cartridge for silver content at least once per month using either silver test paper or a portable silver test kit.

When the discharge from the first chemical recovery cartridge referred to above cannot be sampled, an operator of a photographic imaging operation must:

- (a) install a cumulative flow meter on the silver recovery system; and
- (b) test the discharge from the second chemical recovery cartridge once per week using silver test paper or a silver test kit.

Cartridge Replacement

An operator of a photographic imaging operation must replace the chemical recovery cartridges when any one of the following occurs:

- (a) the manufacturer's or supplier's recommended expiry date, as shown on each cartridge, has been reached;
- (b) eighty percent (80%) of the manufacturer's or supplier's maximum recommended capacity, or total cumulative flow, for each cartridge has been reached;
- (c) test data, using silver test paper or a silver test kit, indicates that the discharge from the first cartridge is greater than 1000 mg/L; or
- (d) analytical data using a method of analysis outlined in standard methods, or an alternative method of analysis approved by the manager, having a method detection limit of 0.5 mg/L silver or lower, indicates that the concentration of silver in the discharge from the silver recovery system is greater than, or equal to, 1.2 mg/L.

III. RECORD KEEPING AND RETENTION

An operator of a photographic imaging operation that uses a silver recovery system must keep, at the photographic imaging operation site, an operation and maintenance manual pertaining to all equipment used in the silver recovery system.

An operator of a photographic imaging operation that uses two chemical recovery cartridges connected in series must keep a record book at the photographic imaging operation site which includes the following information recorded for the previous two years:

- (a) serial number of each chemical recovery cartridge used;
- (b) installation date of each chemical recovery cartridge used;
- (c) expiry date of each chemical recovery cartridge used (where provided by manufacturers or suppliers);
- (d) maximum recommended capacity, or total cumulative flow, of each chemical recovery cartridge used;
- (e) dates of all metering pump calibrations;
- (f) monthly silver test results on the discharge from the first chemical recovery cartridge; or where the discharge from the first cartridge cannot be sampled, weekly silver test results on the discharge from the second chemical recovery cartridge and weekly cumulative flows through the silver recovery system; and
- (g) dates and descriptions of all operational problems associated with the chemical recovery cartridges and remedial actions taken.

¹ If treatment of liquid waste with two chemical recovery cartridges connected in series is the only silver recovery technology being used, then the owner of the photographic imaging operation must replace both chemical recovery cartridges when one of the events referred to occurs.

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If treatment of liquid waste with two chemical recovery cartridges connected in series is used following treatment by an electrolytic recovery unit, the second cartridge may replace the used first cartridge and a new second cartridge may be installed when one of the events referred to occurs.

Both chemical recovery cartridges used following an electrolytic recovery unit must be replaced by the operator of the photographic imaging operation when one of the events referred to above occurs if this is recommended by the manufacturer or supplier of the cartridges.

An operator of a photographic imaging operation that uses an electrolytic recovery unit in addition to two chemical recovery cartridges connected in series must keep a record book at the photographic imaging operation site which includes the following information recorded for the previous two years:

- (a) all information specified above;
- (b) date of each removal of silver from the electrolytic recovery unit;
- (c) date of each maintenance check on the electrolytic recovery unit;
- (d) dates and descriptions of all operational problems associated with the electrolytic recovery unit and remedial actions taken.

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Liberty Utilities (Litchfield Park Water & Sewer) Corp.

CODE OF PRACTICE (LPSCO-CP-01-006)

SECTION 6 - RV PARK OPERATIONS

I. APPLICATION

This code of practice for RV park operations defines the requirements for managing waste discharged directly or indirectly into a sewer connected to a sewage facility from RVs, mobile homes, trailers, watercraft and other sources which employ storage, chemical disinfection/stabilization and discharge as a waste disposal mechanism.

This code of practice applies to all RV park operations. Definitions are included in LPSCO-CP-01-DEF.

II. DISCHARGE REGULATIONS

An operator of an RV park operation must not discharge waste, which at the point of discharge into a sewer, contains:

- (a) oil and grease in a concentration that is in excess of 100 milligrams per liter as analyzed in a grab sample;
- (b) suspended solids in a concentration that is in excess of 350 milligrams per liter as analyzed in a grab sample;
- (c) 5-day biochemical oxygen demand (BOD₅) in a concentration that is in excess of 350 milligrams per liter in a grab sample;
- (d) total nitrogen in excess of 100 mg/l;
- (e) prohibited waste, restricted waste, special waste, storm water, or contaminated water.

If the RV park operation accepts RV customers with the intention of providing sewerage hook-ups, that practice is only acceptable if one of the following conditions is met:

- 1. If the RV park operation has a dedicated pre-treatment facility, that facility must be used for the disposal of the first discharge of wastewater from any entering RVs. The facility must be maintained as per manufacturer's or engineer's operating instructions. Discharge from that facility which is directed to a sewer connected to a sewerage facility shall be metered such that large slugs of waste are not introduced to the sewer instantaneously. Discharges from such facilities to sewers are limited to 10% of the average daily sewerage flow (in USGPM) experienced in the sewer.
- 2. In the absence of a dedicated pre-treatment facility, the RV park operation shall require incoming RVs to certify that, prior to connection to a sewer, that the holding tanks of the RV have been discharged at an approved facility.

III. RECORD KEEPING AND RETENTION

An operator of an RV park operation must keep a record at the RV park operation of:

- 1. all disposals of RV waste into a dedicated pre-treatment facility;
- 2. Pre-treatment facility inspection and maintenance activities including:
 - a. the date of inspection or maintenance;
 - b. the maintenance conducted; and
 - c. the type and quantity of material removed from the facility;
- 3. Certifications of waste disposal prior to hook up of RVs to sewer services.

The records shall be retained for a period of two years, and shall be available on request by Corporation representative.

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Liberty Utilities (Litchfield Park Water & Sewer) Corp.

CODE OF PRACTICE (LPSC0-CP-01-007)**SECTION 7 – PRETREATMENT/INDUSTRIAL WASTE CONTROL****I APPLICATION**

This Section is adopted by the Company in accordance with the authority conferred in the Clean Water Act, and any regulations implementing the Clean Water Act, including, but not limited to, 40 CFR 403.8, applicable Arizona Revised Statutes, including but not limited to 49 A.R.S. 2, applicable Arizona Administrative Code, including but not limited to 18 A.A.C. 9 and 18 A.A.C. 11, and with all the powers thereof which are specifically granted to the Company, or are necessary or incidental to or implied from power specifically granted therein for carrying out the objectives and purposes of the Company and this Section.

II. COMPLIANCE

The Pretreatment/Industrial Waste Control Program is designed to enable the Company to comply with all conditions of any applicable Aquifer Protection Permit (APP), AZPDES discharge permit, Federal Pretreatment Regulations, Arizona Pretreatment Regulations, and any applicable sludge disposal regulations, and to meet the following objectives:

1. To prevent the introduction of pollutants into the Company's Facilities which will interfere with the operation of the wastewater systems or contaminate the sludge.
2. To prevent the introduction of pollutants into the wastewater system which will pass through the wastewater system, inadequately treated, into the receiving waters or the atmosphere.
3. To prevent the introduction of pollutants into the wastewater system which might constitute a hazard to humans or to animals.
4. To assure the Company's ability to recycle and reclaim wastewater and sludge.
5. To protect human health and welfare, the environment, property and the Company's wastewater system.

II. DISCHARGE REGULATIONS**A. General Discharge Limitations**

No customer shall contribute or cause to be contributed, directly or indirectly, any pollutant or wastewater which will interfere with the operation or performance of the Company's wastewater system. These general prohibitions apply to all customers of the Company whether or not the customer is subject to National Categorical Pretreatment Standards or any other national, State, Company, or local pretreatment standards or requirements.

B. Specific Discharge Limitations

No User shall discharge into the Company wastewater system or into any connected sewer system at any time or over any period of time, wastewater containing any of the materials and substances in excess of the limitations provided under Section B "Restricted Waste". The specified limitations may also be imposed directly on process wastewaters prior to dilution by domestic and other wastewaters discharged by a customer.

Once promulgated, National Categorical Pretreatment Standards for a particular industrial subcategory, if more stringent, shall supersede all conflicting discharge limitations contained in this Section 7, as they apply to that industrial subcategory.

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DECISION NO. 76799

State requirements and limitations on discharges shall apply in any case where they are more stringent than federal requirements and limitations or those contained elsewhere in this Code.

C. Prohibited Discharges

None of the following described sewage, water, substances, materials, or wastes shall be discharged into the Company's wastewater system or into the sewer system by any customer, and each governing body of any applicable Service Provider shall prohibit and shall prevent such discharges by any Corporation customer, either directly or indirectly, into its sewer system:

- (a) Any liquids, solids or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosion or be injurious in any other way to the Company's wastewater system, the sewer system of a Service Provider or any of its connectors, or to the operation of the Company. At no time shall any reading on an explosion hazard meter, at the point of discharge into the Company's wastewater system or the sewer system of a Service Provider or any of its customers (or at any point in the wastewater systems), or at any monitoring location designated by the Company in a wastewater contribution permit, be more than ten percent (10%) of the Lower Explosive Limit (LEL) of the meter. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, tetrachloroethylene, perchloroethylene, bromates, carbides, hydrides, and sulfides.
- (b) Any solid or viscous material which could cause an obstruction to flow in the sewers or in any way could interfere with the treatment process, including as examples of such materials but without limiting the generality of the foregoing, significant proportions of ashes, wax, paraffin, cinders, sand, mud, straw, shavings, metal, glass, rags, lint, feathers, tars, plastics, wood and sawdust, paunch manure, hair and fleshings, entrails, lime slurries, beer and distillery slops, grain processing wastes, grinding compounds, acetylene generation sludge, chemical residues, acid residues, food processing bulk solids, snow, ice, and all other solid objects, material, refuse, and debris not normally contained in sanitary sewage.
- (c) Any wastewater having a pH less than 5.5 for discharges from Industrial Customers into the Company's wastewater system or the sewer system of a Service Provider or that of any of its Customers, or less than 5.5 or greater than 9.5 for other discharges into the Company's wastewater system, or wastewater having any other corrosive property capable of causing damage or hazard to any part of the Company's wastewater system or the sewer system of a Service Provider or any of its Customers, or to personnel.
- (d) Any wastewater having a temperature which will inhibit biological activity at the Company's treatment plant, but in no case wastewater containing heat in such amounts that the temperature at the introduction into the Company's wastewater treatment exceeds 40°C (104°F).
- (e) Any pollutants, including oxygen demanding pollutants (BOD, COD, etc.) released at a flow rate and/or pollutant concentration which cause Upset. In no case shall a slug load have a flow rate or contain concentrations or qualities of pollutants that exceed for any time period longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration, quantities, or flow during normal operation.
- (f) Any water or wastes containing a toxic substance (such as Chlorine from large swimming pools over 25,000 gallons, etc.) in sufficient quantity, either singly or by interaction with other substances, to injure or interfere with any sewage treatment process, to constitute a hazard to humans or to animals, or to create any hazard or toxic effect in the waters which receive the treated or untreated sewage.
- (g) Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin, each in amounts that will cause interference.
- (h) Pollutants which result in the presence of toxic gases, vapors, or fumes within the system in a quantity that may cause acute worker health and safety problems.
- (i) Any trucked or hauled pollutants except at discharge points designated by the Company.
- (j) Any water or wastes containing pollutant quantities or concentrations exceeding the limitations in Section 7 of this Code of Practice, or the limitations in any applicable Categorical Standards.

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DECISION NO. 76799

III. HAZARDOUS WASTE DISCHARGE NOTICE

Any customer disposing of industrial waste shall notify the Company, the EPA Regional Waste Management Division Director, and the state hazardous waste authorities in writing of any discharge into the Company's wastewater system of any substance which, if otherwise disposed of, would be considered a hazardous waste under 40 CFR Part 261. The specific information required to be reported and the time frames in which it is to be reported are found at 40 CFR §403.12(p).

IV. REPORTING REQUIREMENTS FOR SIGNIFICANT INDUSTRIAL USERS

[RESERVED]

V. MONITORING BMSC FACILITIES

The Company may require to be provided and operated, at the customer's own expense, monitoring facilities to allow inspection, sampling, and flow measurement of any discharges as necessary to determine compliance with the provisions of this Code.

There shall be ample room in or near such sampling manhole or facility to allow accurate sampling and preparation of samples for analysis. The facility, sampling, and measuring equipment shall be maintained at all times in a safe and proper operating condition at the expense of the customer.

The sampling and monitoring facilities shall be provided in accordance with the Company's requirements and all applicable local construction standards and specifications. Construction shall be completed within such a time frame as the Company shall specify by written notification.

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Liberty Utilities (Litchfield Park Water & Sewer) Corp.

CODE OF PRACTICE (LPSCO-CP-01-008)**SECTION 8 – NONCOMPLIANCE / ENFORCEMENT****I. NOTICE OF VIOLATIONS**

Whenever the Company determines that any customer has violated or is violating any provision of this Code, or any directives, orders, or permits issued or approved to which the Company is bound, the Company may serve upon such customer a written notice ("Notice") stating the nature of the violation(s) in accordance with A.A.C. R14-2-609.C, and requiring that the customer correct the violation(s) within a specified period of time; perform such tasks as the Company determines are necessary for the customer to correct the violations; or perform such tasks and submit such information as is necessary for the Company to evaluate the extent of noncompliance or to determine appropriate enforcement actions to be taken in conjunction with the applicable regulatory agencies. A copy of the Notice shall also be provided to the Director of the Utilities Division of the Arizona Corporation Commission.

II. SUSPENSION OF SERVICE

If the customer does not cure the violation, or present a satisfactory plan of remediation to Company, within the time specified in the Notice, then Company may suspend or disconnect wastewater treatment service in accordance with A.A.C. R14-2-609.C.

In addition, the Company may suspend wastewater treatment service, in accordance with A.A.C. R14-2-609.B (without notice), when such suspension is necessary, in the opinion of the Company, in order to stop an actual or threatened discharge which presents or may present an imminent or substantial endangerment to the health or welfare of persons, to the environment, or causes the Company to violate any condition of its aquifer protection permit, AZPDES discharge permit, or any applicable sludge disposal regulations.

Any customer notified of an immediate suspension of the wastewater treatment service shall immediately stop or eliminate the discharge. In the event of a failure of the customer to comply voluntarily with the cease and desist request, the Company shall take such steps as deemed necessary, including immediate severance of the sewer connection and/or immediate disconnection of the water service, to prevent or minimize damage to the company's wastewater system or endangerment to any individuals or the environment. Any action that results in the immediate suspension of service, or disconnection, of a customer shall be reported to the Director of the Utilities Division of the Arizona Corporation Commission and Maricopa County Environmental Services Department (MCESD) within twenty-four (24) hours of the suspension or disconnection. Any reconnection of the affected customer shall be in accordance with the Company's Tariff for which the customer must pay the cost of disconnection and reconnection, plus the cost of parts and installation of an Elder valve (or similar equipment) to allow for easier disconnection in the event of a repeated discharge offense by customer.

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DECISION NO. 76799

ARTICLE 5
PRETREATMENT/INDUSTRIAL WASTE CONTROL

5.1 General.

5.1.1 Authority:

This Article 5 is adopted by the Corporation in accordance with the authority conferred in the Clean Water Act, and any regulations implementing the Clean Water Act, including, but not limited to, 40 CFR 403.8, applicable Arizona Revised Statute, including but not limited to 49 A.R.S. 2, applicable Arizona Administrative Code, including but not limited to 18 A.A.C. 9 and 18. A.A.C. 11, and with all the powers thereof which are specifically granted to the Corporation, or are necessary or incidental to or implied from power specifically granted therein for carrying out the objectives and purposes of the Corporation and this Article 5. The provisions in this Article 5 shall be called the Pretreatment/Industrial Waste Control Program of the Corporation.

5.1.2 Compliance:

The Pretreatment/Industrial Waste Control Program of the Corporation is designed to enable the Corporation to comply with all conditions of its Arizona Pollutant Discharge Elimination System (AZPDES) Permit, Federal Pretreatment Regulations, Arizona Pretreatment Regulations, and any applicable sludge disposal regulations, and to meet the following objectives:

- (a) To prevent the introduction of pollutants into the Corporation Facilities which will interfere with the operation of the Wastewater Systems or contaminate the sludge.
- (b) To prevent the introduction of pollutants into the Wastewater System which will pass through the Wastewater System, inadequately treated, into the receiving waters or the atmosphere.
- (c) To prevent the introduction of pollutants into the Wastewater System which might constitute a hazard to humans or to animals.
- (d) To assure the Corporation's ability to recycle and reclaim Wastewater and sludge.
- (e) To protect human health and welfare, the environment, property and the Corporation's Wastewater System.

PART A
RULES AND REGULATIONS FOR INDUSTRIAL/PRETREATMENT USERS

5.2 Applicability.

- (a) A User is any non-domestic discharger who contributes, causes, or permits the contribution of wastewater into the Corporation's wastewater collection and treatment system.
- (b) Any User, the sewage from which directly or indirectly enters the Wastewater System of the Corporation from an area within or without the boundaries (through a Service Provider) of the Corporation, shall be subject to the requirements of this Part and shall be bound by these Rules and Regulations as they now exist or may hereafter be amended. Such Rules and Regulations may be enforced against any User.

5.3 General Discharge Prohibitions.

No User shall contribute or cause to be contributed, directly or indirectly, any pollutant or wastewater which will interfere with the operation or performance of the Corporation's Wastewater System. These general prohibitions apply to all such Users of the Corporation's Wastewater System whether or not the User is subject to national categorical pretreatment standards or any other national, State, Corporation, or local pretreatment standards or requirements: A User may not discharge any of the sewage, water, substances, materials, or wastes listed in Article 5.4 of these Rules and Regulations.

5.4 Specific Discharge Limitations – Users.

5.4.1 Corporation Limitations:

No User shall discharge into the Corporation Wastewater System or into any connected sewer system at any time or over any period of time, Wastewater containing any of the following materials and substances in excess of the limitations provided herein. These limitations may also be imposed directly on process wastewaters prior to dilution by domestic and other Wastewaters discharged by the User:

CONVENTIONAL CONTAMINANTS (mg/L)	
Biochemical Oxygen Demand (BOD)	350
Chemical Oxygen Demand (COD)	1000
Ammonia	75
Total Nitrogen- as NO ₃	100
Oil and Grease	100
Suspended Solids	350
ORGANIC CONTAMINANTS (mg/L)	
Benzene	Reserved
Ethyl Benzene	Reserved
Toluene	Reserved
Xylenes	Reserved
Chloroform	Reserved
Total Oil and Grease (hydrocarbons)	100.0
TRACE METALS	
Parameter	Daily Average Effluent Limitation (mg/L)
Arsenic (As)	0.112
Beryllium (Be)	0.008
Cadmium (Cd)	0.012
Chloride (Cl)	Reserved
Chromium (Cr)	0.238
Cobalt (Co)	Reserved
Copper (Cu)	Reserved
Cyanide (CN)	Reserved
Fluoride (F)	9.43
Iron (Fe)	Reserved
Lead (Pb)	0.13
Manganese (Mn)	Reserved
Mercury (Hg)	0.0050
Molybdenum (Mo)	Reserved
Nickel (Ni)	0.242
Selenium (Se)	0.142
Silver (Ag)	Reserved
Sulfate (SO ₄)	Reserved
Thallium	0.005
Zinc (Zn)	Reserved

*Notwithstanding these numeric limitations, the discharge of dry-cleaning process wastes, including new and used tetrachloroethene (perchloroethylene), still bottom oil, and separator water, is prohibited entirely. Where necessary the Corporation may require that these wastes be physically prevented from discharging into the Corporation's Wastewater System.

5.4.2 General Requirements Regarding Deleterious Wastes.

None of the following described sewage, water, substances, materials or waste shall be discharged into the Corporation's Wastewater System; and each governing body of each Service Provider shall prohibit and shall prevent any discharges from any outlet into its sewer system, if such discharges cause or significantly contribute to a violation of any of the requirements contained herein:

- (a) Sewage of such a nature and delivered at such a rate as to impair the hydraulic capacity of the Corporation's Wastewater System, normal and reasonable wear and usage excepted.
- (b) Sewage of such a quantity, quality, or other nature as to impair the strength or the durability of the sewer structures, equipment or treatment works, either by chemical or by mechanical action.
- (c) Sewage having a flash point lower than 187°F, as determined by the test methods specified in 40 CFR §261.21.
- (d) Any radioactive substance, the discharge of which, does not comply with Article 4, Appendix B of the AAC, Title 12, Chapter 1.
- (e) Any garbage other than that received directly into the Service Provider's sewer system from domestic and commercial garbage grinders in dwellings, restaurants, hotels, stores, and institutions, by which such garbage has been shredded to such a degree that all particles will be carried freely under flow conditions normally prevailing in public sewers with no particle greater than one-half (1/2) inch in any dimension.
- (f) Any night soil or septic tank pumpage, except by permit in writing from the Corporation at such points and under such conditions as the Corporation may stipulate in each permit.
- (g) Sludge or other material from sewage or industrial waste treatment plants or from water treatment plants, except such sludge or other material, the discharge of which to the Corporation Wastewater System shall be governed by the provisions of these Rules and Regulations or any Connector Agreement or as otherwise authorized by the Corporation.
- (h) Water which has been used for cooling or heat transfer purposes without recirculation, discharged from any system of condensation, air conditioning, refrigeration, or similar use.
- (i) Water accumulated in excavations or accumulated as the result of grading, water taken from the ground by well points, or any other drainage associated with construction.

- (j) Any water or wastes containing grease or oil and other substances that will solidify or become discernibly viscous at temperatures between 32°F and 150°F except by permit in writing from the Corporation at such points and under such conditions as the Corporation may stipulate in each permit.
- (k) Any wastes that contain a corrosive, noxious, or malodorous material or substance which, either singly or by reaction with other wastes, is capable of causing damage to the Corporation's Wastewater System or to any part thereof, of creating a public nuisance or hazard, or of preventing entry into the sewers for maintenance and repair.
- (l) Any wastes that contain concentrated dye wastes or other wastes that are either highly colored or could become highly colored by reacting with any other wastes, except by permission of the Corporation.
- (m) Any wastes which are unusual in composition; i.e., contain an extremely large amount of suspended solids or BOD; are high in dissolved solids such as sodium chloride, calcium chloride, or sodium sulfate; contain substances conducive to creating tastes or odors in drinking water supplies; otherwise make such waters unpalatable even after conventional water purification treatment; or are in any other way extremely unusual unless the Corporation determines that such wastes may be admitted to the Corporation Wastewater System or shall be modified or treated before being so admitted.
- (n) Any substance which may cause the Corporation's effluent or any other product of the Corporation such as residues, sludges or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case, shall a substance discharged to the Wastewater System cause the Corporation to be in non-compliance with sludge use or disposal criteria, guidelines or regulations developed under Article 405 of the Clean Water Act; any criteria, guidelines, or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substances Control Act, or State criteria applicable to the sludge management method being used.
- (o) Any substance which may cause the Corporation to violate its Arizona Pollutant Discharge Elimination System (AZPDES) Permit or the receiving water quality standards.
- (p) Except for existing combined sewer facilities, any stormwater, directly or indirectly, from surface drains, ditches, or streams, storm or combined sewers, roof, areaway, sumps and sump pumps, or foundation drains, or from any other means, including subsurface drainage or groundwater.

5.4.3 Prohibited Discharges.

None of the following described sewage, water, substances, materials, or wastes shall be discharged into the Corporation's Wastewater System or into the sewer system of a Service.

Provider, by any User and each governing body of each Service Provider shall prohibit and shall prevent such discharges by any User, either directly or indirectly, into its sewer system:

- (a) Any liquids, solids or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosion or be injurious in any other way to the Corporation's Wastewater System, the sewer system of a Service Provider or any of its connectors, or to the operation of the Corporation. At no time shall any reading on an explosion hazard meter, at the point of discharge into the Corporation's Wastewater System or the sewer system of a Service Provider or any of its Customers (or at any point in the Wastewater Systems), or at any monitoring location designated by the Corporation in a wastewater contribution permit, be more than ten percent (10%) of the Lower Explosive Limit (LEL) of the meter. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides, and sulfides.
- (b) Any solid or viscous material which could cause an obstruction to flow in the sewers or in any way could interfere with the treatment process, including as examples of such materials but without limiting the generality of the foregoing, significant proportions of ashes, wax, paraffin, cinders, sand, mud, straw, shavings, metal, glass, rags, lint, feathers, tars, plastics, wood and sawdust, paunch manure, hair and fleshings, entrails, lime slurries, beer and distillery slops, grain processing wastes, grinding compounds, acetylene generation sludge, chemical residues, acid residues, food processing bulk solids, snow, ice, and all other solid objects, material, refuse, and debris not normally contained in sanitary sewage.
- (c) Any wastewater having a pH less than 5.5 and more than 9.5 for discharges from Industrial Users into the Corporation's Wastewater System or the sewer system of a Service Provider or that of any of its Customers, or less than 5.5 or greater than 9.5 for other discharges into the Corporation's Wastewater System, or wastewater having any other corrosive property capable of causing damage or hazard to any part of the Corporation's Wastewater System or the sewer system of a Service Provider or any of its Customers, or to personnel.

- (d) Any wastewater having a temperature which will inhibit biological activity at the Corporation's treatment plant, but in no case wastewater containing heat in such amounts that the temperature at the introduction into the Corporation's Wastewater Treatment Works exceeds 38°C (100°F).
- (e) Any pollutants, including oxygen demanding pollutants (BOD, etc.) released at a flow rate and/or pollutant concentration which cause Upset. In no case shall a slug load have a flow rate or contain concentrations or qualities of pollutants that exceed for any time period longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration, quantities, or flow during normal operation.
- (f) Any water or wastes containing a toxic substance in sufficient quantity, either singly or by interaction with other substances, to injure or interfere with any sewage treatment process, to constitute a hazard to humans or to animals, or to create any hazard or toxic effect in the waters which receive the treated or untreated sewage.
- (g) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin, each in amounts that will cause interference or Upset.
- (h) Pollutants which result in the presence of toxic gases, vapors, or fumes within the system in a quantity that may cause acute worker health and safety problems.
- (i) Any trucked or hauled pollutants except at discharge points designated by the Corporation.
- (j) Any water or wastes containing pollutant quantities or concentrations exceeding the limitations in Article 5 of these Rules and Regulations, or the limitations in any applicable Categorical Standards.
- (k) Any wastewater discharges to the Corporation's Wastewater System, except at locations approved by the Corporation.

5.4.4 National Categorical Pretreatment Standards:

Once promulgated, Categorical Standards for a particular industrial subcategory, if more stringent, shall supersede all conflicting discharge limitations contained in this Article 5, Part B, as they apply to that industrial subcategory.

5.4.5 State Requirements:

State requirements and limitations on discharges shall apply in any case where they are more stringent than federal requirements and limitations or those contained elsewhere in this Article 5, Part B.

5.4.6 Dilution Prohibited:

Except where permitted by Categorical Standards, no User may increase the use of process water or, in any way, attempt to dilute a discharge as a partial or complete

substitute for adequate treatment to attain compliance with the limitations contained in National Categorical Pretreatment Standards or any other specific discharge limitations contained in this Article 5. The Corporation may set or require a Service Provider to set mass limitations or alternate concentration-based limitations for those Users which are using improper dilution to meet these limitations.

5.5 Insignificant Discharges.

Notwithstanding the prohibitions and limitations contained in Article 5.3 of these Rules and Regulations, the Corporation may allow a proposed discharge to the system if the Corporation determines that the quantity and quality of the discharge, both alone and in conjunction with similar discharges which might be affected by this determination, will have no material effect on the Corporation's operations, including the quality of its effluent or sludges. Approval of the Corporation must be received in writing before the discharge may commence, and the discharge must adhere to any terms and conditions of the Corporation's approval.

Approval of such a discharge is entirely at the discretion of the Corporation, and shall not constitute approval of any additional or similar discharges. Disapproval of a proposed discharge by the Corporation shall not be subject to the appeal and hearing procedure set forth in these Rules and Regulations.

5.6 Accidental Or Unusual Discharges.

An accidental or unusual discharge is a discharge which may disrupt Wastewater System treatment processes or operations, damage Wastewater System facilities, cause an AZPDES Permit violation at the Corporation's treatment plant or degrade sludge quality excessively, or which differs significantly in quantity or quality from discharges under normal operations.

5.6.1 Accidental Discharge Protection:

Each User shall provide protection from accidental or unusual discharges of prohibited materials or other substances regulated by these Rules and Regulations. Infrastructure necessary to prevent accidental discharge of prohibited materials shall be provided and maintained at the Customer or User's own cost and expense.

5.6.2 Notification Requirements:

- (a) Telephone Notification: In the case of any accidental or unusual discharge, it is the responsibility of the User to immediately telephone and notify the Corporation and the Service Provider providing sewage services of the incident. The notification shall include the location of discharge, type of waste, concentration and volume, and corrective actions.

- (b) **Written Notice:** Within five (5) days following an accidental or unusual discharge, the User shall submit to the Corporation a detailed written report describing the cause of the discharge and the measures to be taken by the User to prevent similar future occurrences. Such notification shall not relieve the User of any expense, loss, damage, or other liability which may be incurred as a result of damage to the Corporation's wastewater system, fish kills, or any other damage to person or property; nor shall such notification relieve the User of any fines, civil penalties, or other liability which may be imposed by these Rules and Regulations or other applicable law.

Notice To Employees. A notice shall be permanently posted on the User's bulletin board or other prominent place advising employees whom to call in the event of an accidental discharge. Employers shall ensure that all employees who may cause or suffer such an accidental discharge to occur are advised of the emergency notification procedure.

5.6.3 Slug Discharge Plan Requirements:

At least every two (2) years, or as required by 40 CFR §403.8(f)(2)(v), the Corporation shall evaluate whether each Significant Industrial User needs a plan to control slug discharges. If a slug discharge plan is needed, it shall be submitted to the Corporation for review and approval as directed by the Corporation, and shall contain, at a minimum, the following elements:

- (a) A description of discharge practices, including non-routine batch discharges.
- (b) A description of stored chemicals.
- (c) Procedures for immediately notifying the Corporation and the Service Provider providing sewage services of slug discharges, including any discharge that would violate any prohibition or limitation under Articles 5.17 or 5.18 of these Rules and Regulations, with procedures for follow-up written notification within five (5) days.
- (d) If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant-site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response.

5.7 Hazardous Waste Discharge Notification.

Industrial Users shall notify the Corporation, the EPA Regional Waste Management Division Director, and the state hazardous waste authorities in writing of any discharge into the Corporation's Wastewater System of any substance which, if otherwise disposed of, would be considered a hazardous waste under 40 CFR Part 261. This notification requirement does not apply to pollutants already being reported under the reporting

requirements contained in these Rules and Regulations. The specific information required to be reported and the time frames in which it is to be reported are found at 40 CFR §403.12(p).

5.8 Wastewater Contribution Permits.

5.8.1 Applicability:

All Significant Industrial Users and other users as required by the Corporation, contributing to or proposing to connect to or to contribute to the Corporation's Wastewater System, shall obtain a Wastewater Contribution Permit. Such permit shall either be issued by the Corporation, or co-issued by the Service Provider providing sewage services and the Corporation or in a form acceptable to the Corporation.

Requirements pertaining to permits co-issued with municipalities or issued solely by the Corporation are contained in the Corporation's Rules and Regulations. Permits co-issued with Service Providers may also contain requirements contained in the various municipal codes, ordinances, resolutions, and rules and regulations.

5.8.2 Permit Application:

Users required to obtain a Wastewater Contribution Permit shall complete and file with the Corporation an application accompanied by a fee as determined pursuant to Article 5.12 of these Rules and Regulations.

Applications Are Due: For new dischargers, at least 90 days prior to beginning discharge to the Corporation's Wastewater System.

For existing dischargers who become subject to a newly promulgated Categorical Standard, at least 90 days prior to the effective date of such standard.

For existing dischargers who, because of process changes or additions, will become subject to an existing Categorical Standard, at least 90 days prior to beginning discharge from the categorical process.

For existing dischargers subject to Categorical Standards as of the effective date of this regulation, who have not previously obtained a Wastewater Contribution Permit, within 30 days of the effective date of this regulation.

For all other dischargers, in a time frame as specified in notice from the Corporation.

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In support of the application, the User shall submit, in units and terms appropriate for evaluation, the following information:

- (a) Name, mailing address, and facility location.
- (b) SIC number(s) according to the Standard Industrial Classification (SIC) Manual, Office of Management and Budget, 1987, as amended or the 1997 North American Industrial Classification System (NAICS), as amended.
- (c) Time and duration of wastewater discharges.
- (d) Average daily and thirty (30) minute peak wastewater flow rates, including daily, monthly, and seasonal variations, if any.
- (e) Site plan, floor plans, mechanical and plumbing plans, and details to show all sewers, sewer connections, and appurtenances by the size, location, and elevation.
- (f) Description of activities, facilities, and plant processes on the premises including all materials which are or could be discharged.
- (g) Wastewater constituents and characteristics including, but not limited to, those limited by Article 5 of these Rules and Regulations, as determined by a reliable analytical laboratory. Sampling and analysis shall be performed in accordance with procedures established by the EPA pursuant to Article 304(g) of the act and contained in 40 CFR, Part 136, as amended.
- (h) A statement regarding whether or not the discharge standards and pollutant limitations contained in Article 5 of these Rules and Regulations, including any applicable State or national pretreatment standards, are being met on a consistent basis and if not, whether additional O&M and/or additional pretreatment is required for the User to meet the applicable standards.
- (i) If additional pretreatment and/or O&M will be required to meet the discharge standards and pollutant limitations, the shortest schedule by which the User will provide such additional treatment. For state or national pretreatment standards, the completion date in this schedule shall not be later than the compliance date established for the applicable pretreatment standard.

The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the User to meet the applicable discharge standards and pollutant limitations (e.g., Hiring an engineer, completing preliminary plans, completing final plans, executing contract for major components, commencing construction, completing construction, etc.). In no case shall an increment of progress exceed nine (9) months.

- (a) Each product produced by type, amount, process or processes, and rate of production.
- (b) The type and amount of raw materials processed (average and maximum per day).
- (c) The number and type of employees, and hours of operation of the plant, and proposed or actual hours of operation of the Pretreatment System.
- (d) Any other information as may be deemed by the Corporation to be necessary to evaluate the permit application.

5.8.3 Permit Issuance:

The Corporation shall issue a Wastewater Contribution Permit to the applicant if the Corporation finds that all of the following conditions are met:

- (a) The proposed discharge of the applicant is in compliance with the prohibitions and limitations of Articles 5.17 and 5.18 of these Rules and Regulations;
- (b) The proposed discharge of the applicant would permit the normal and efficient operation of the wastewater treatment system; and
- (c) The proposed discharge of the applicant would not result in a violation by the Corporation of the terms and conditions of its AZPDES Permit.

If the Corporation finds that the condition set out in Paragraph 1 of this Subsection is not met, the Corporation may issue a Wastewater Contribution Permit to the applicant if the conditions set out in Paragraphs 2 and 3 of this Subsection are met and if the applicant submits, and the Corporation approves, a schedule setting out the measures to be taken by the applicant and the dates that such measures will be implemented to ensure compliance with the provisions of these Rules and Regulations.

5.8.4 Permit Denial:

Appeal and Hearing. In the event an application for a Wastewater Contribution Permit is denied, the Corporation shall notify the applicant in writing of such denial. Such notification shall state the grounds for denial with that degree of specificity which will inform the applicant of the measures or actions which must be taken by the applicant prior to issuance of a permit.

An applicant denied a Wastewater Contribution Permit may request that the Corporation Manager review the denial and issue a permit. If the Corporation Manager reaffirms the denial, the applicant may appeal this decision pursuant to the terms and conditions of the Corporation's appeal and hearing procedure as set forth in these Rules and Regulations.

5.8.5 Permit Conditions:

Wastewater Contribution Permits shall be expressly subject to all provisions of these Rules and Regulations. Permits will contain, at a minimum, the following:

- (a) A statement of duration (in no case more than five (5) years).
- (b) A statement of non-transferability without, at a minimum, prior notification to the Corporation and provision of a copy of the existing permit to the new Customer or operator.
- (c) Effluent limits based on applicable Pretreatment Standards, Categorical Pretreatment Standards, specific discharge limitations, as cited in these Rules and Regulations, site-specific discharge limitations, and other federal, state and local law and regulations.
- (d) Self-monitoring, sampling, reporting, notification, and record keeping requirements, including an identification of the pollutants to be monitored, sampling locations, sampling frequencies, and sample types. These requirements shall be based on applicable general pretreatment standards and requirements at 40 CFR §403; categorical pretreatment standards; specific discharge limitations; State and local law and regulations; and Corporation determinations as to the type, quantity, quality, and frequency of information needed to adequately determine compliance with conditions of the permit.
- (e) A statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedules. Such schedules may not extend compliance dates beyond federal deadlines.
- (f) Permits may also contain the following:
 - 1. A Schedule Of User Charges and Fees pursuant to Article 5.12 of these Rules and Regulations.
 - 2. Limits on average and maximum rate and time of discharge or requirements for flow regulation and equalization.
 - 3. Requirements for installation and maintenance of inspection and sampling facilities.
 - 4. Requirements for notification to the Corporation of any new introduction of wastewater constituents or any substantial change in operations or in the volume or character of the wastewater constituents being introduced into the Corporation's Wastewater System.
 - 5. Requirements for notification of slug discharges.
 - 6. Other conditions as deemed appropriate by the Corporation to ensure compliance with these Rules and Regulations.

5.8.6 Permit Modifications:

- (a) The terms and conditions of a Wastewater Contribution Permit may be modified by the Corporation during the term of the permit as limitations or requirements as identified in these Rules and Regulations are modified or other just cause exists. The User shall be informed of any proposed changes in his permit at least thirty (30) days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.
- (b) Within nine (9) months of the promulgation of a national categorical pretreatment standard, the Wastewater Contribution Permit of Users subject to such standard shall be revised to require compliance with such standard within the time frame prescribed by such standard.

5.8.7 Permit Duration:

Reapplication: Permits shall be issued for a specified time period, not to exceed five (5) years. The User shall apply for permit reissuance a minimum of ninety (90) days prior to the expiration of the User's existing Permit.

5.9 Reporting Requirements For Significant Industrial Users.

5.9.1 Initial Compliance Report For Users Subject To National Categorical Pretreatment Standards:

Within ninety (90) days following the date for final compliance with applicable Pretreatment Standards or, in the case of a new source, following commencement of the introduction of wastewater into the Corporation's Wastewater System, or as specified in the wastewater discharge permit, any User subject to Pretreatment Standards and requirements shall submit to the Corporation a report indicating the nature and concentration of all pollutants in the discharge from the regulated processes which are limited by the Pretreatment Standards and requirements and the average and maximum daily flow for those process units in the User's facility which are limited by such Pretreatment Standards or requirements.

Where applicable Pretreatment Standards contain limitations on the mass of pollutants discharged per unit of production, the report shall also contain the pollutant mass and production information necessary to determine compliance with such Pretreatment Standards.

The report shall state whether the applicable Pretreatment Standards and Requirements are being met on a consistent basis and, if not, what additional O&M and/or pretreatment is necessary to bring the User into compliance with the applicable Pretreatment Standards or Requirements. This statement shall be signed by an authorized representative of the Industrial User, and certified to by a qualified professional.

5.9.2 Periodic Compliance Reports:

- (a) Any User subject to a National Categorical Pretreatment Standard, after the compliance date of such Pretreatment Standard, or, in the case of a new source, after commencement of the discharge into the Corporation's Wastewater System, shall submit to the Corporation during the months of July and January, unless required more frequently in the pretreatment standard or by the Corporation, a report covering the preceding six (6) months and indicating the nature and concentration of pollutants in the effluent which are limited by such pretreatment standards. In addition, this report shall include a record of average and maximum daily flows for the reporting period for all regulated processes.
- (b) Where applicable Pretreatment Standards contain limitations on the mass of pollutants discharged per unit of production, the report shall also contain the pollutant mass and production information necessary to determine compliance with such pretreatment standards. At the discretion of the Corporation and in consideration of such factors as local high or low flow rates, holidays, and budget cycles, the Corporation may agree to alter the months during which the above reports are to be submitted.
- (c) Significant Industrial Users not subject to National Categorical Pretreatment Standards shall submit to the Corporation at least once every six (6) months (on dates specified by the Corporation), unless required more frequently by the Corporation, a description of the nature, pollutant concentrations, flows, and, where requested, pollutant masses, of the discharges required to be reported by the Corporation.
- (d) All reports submitted pursuant to this section shall be based on analyses performed in accordance with procedures established by the EPA Administrator pursuant to Article 304(g) of the act and contained in 40 CFR, Part 136 and amendments thereto or with any other test procedures approved by the EPA Administrator. Sampling shall be performed in accordance with the techniques approved by the administrator.

5.10 Monitoring Corporation Facilities.

The Corporation may require to be provided and operated at the User's own expense, monitoring facilities to allow inspection, sampling, and flow measurement of any discharges as necessary to determine compliance with the provisions of these Rules and Regulations.

There shall be ample room in or near such sampling manhole or facility to allow accurate sampling and preparation of samples for analysis. The facility, sampling, and measuring equipment shall be maintained at all times in a safe and proper operating condition at the expense of the User.

The sampling and monitoring facilities shall be provided in accordance with the Corporation's requirements and all applicable local construction standards and specifications. Construction shall be completed within such a time frame as the Corporation shall specify by written notification.

5.11 Information Submittal, Inspection and Sampling.

The Corporation may require any User to submit information as necessary to determine compliance with the requirements of these Rules and Regulations.

The Corporation may inspect the facilities of any User to ascertain whether the requirements of these Rules and Regulations are being complied with. Persons or occupants of premises where wastewater is created or discharged shall allow the Corporation or its representatives ready access at all reasonable times to all parts of the premises for the purposes of inspection, sampling, records examination and copying, or in the performance of any of their duties.

The Corporation, Maricopa County, the Arizona Department of Environmental Quality, and EPA shall have the right to set up on the User's property such devices as are necessary to conduct sampling, inspection, compliance monitoring and/or metering operations. Where a User has security measures in force which would require proper identification and clearance before entry into the User's premises, the User shall make necessary arrangements with security guards so that upon presentation of suitable identification, personnel from the Corporation, the Arizona Department of Environmental Quality, and EPA will be permitted to enter, without delay, for the purposes of performing their specific responsibilities.

All records relating to compliance with pretreatment standards and requirements shall be made available to officials of the Corporation, the Arizona Department of Environmental Quality, and EPA upon request.

5.12 Wastewater Treatment.

Users shall provide wastewater treatment as required to comply with the requirements of these Rules and Regulations, and shall achieve compliance with all national categorical pretreatment standards within the time limitations as specified by the federal pretreatment regulations. Any facilities required to pretreat wastewater to a level acceptable to the Corporation shall be provided, operated, and maintained at the User's expense.

PART B
RULES AND REGULATIONS FOR SERVICE PROVIDER USE
OF CORPORATION WASTEWATER SYSTEM

5.13 Applicability.

Any Service Provider, the sewage from which directly or indirectly enters the Wastewater System of the Corporation from areas within or without the boundaries or Service Area of the Corporation, shall be subject to the requirements of this Part and shall be bound by these Rules and Regulations as they now exist or may hereafter be amended.

All Service Providers are required to design and administer Pretreatment Industrial Waste Control Programs which are in accordance with this Article 5, and which will enable the Corporation to comply with all pretreatment and effluent limitation conditions of its National Pollutant Discharge Elimination System (AZPDES) Permit, Federal Pretreatment Regulations, and applicable sludge disposal regulations.

5.14 Compliance with Requirements.

Each Service Provider will cause all sewage at any time discharged directly or indirectly into its sewer system, or into the Corporation Wastewater System by it or on its behalf, to comply with any requirements of the Corporation. In all cases where the application or the enforcement of said requirements involve technical or scientific analyses or determinations, the Corporation shall have final authority as to methods, standards, criteria, significance, evaluation, and interpretation of such analyses and determinations. Each Service Provider will permit no new connections and will discontinue existing public connections and will require the discontinuance of existing private connections to its sewer system which allow entrance therein of such sewage as will cause the discharge at any time into its sewer system, or into the Corporation Wastewater System from such sewer system of sewage that does not comply with said requirements of the Corporation.

The Corporation may from time to time make a determination of the respects in which sewage discharged or to be discharged into the sewer system of a Service Provider, or into the Corporation Wastewater System by any Service Provider, is not in compliance with said requirements and with the amendments thereof, if any, then in effect. A copy of said determination shall be mailed to the Service Provider at its usual place of business and for all purposes of these Rules and Regulations shall be conclusively deemed to have been made in accordance with this section and to be correct at the expiration of thirty (30) days after such mailing unless within said period of thirty (30) days the Service Provider shall have filed with the Corporation an objection thereto stating that such determination is incorrect and stating the changes therein which should be made in order to correct such determination.

5.15 Program Procedure Requirements.

5.15.1 General:

Each Service Provider must formulate, fund, and implement procedures which will enable Corporation compliance with the "Procedures" and "Funding" requirements contained in 40 CFR §403.8(f)(2) and (3) of the Federal Pretreatment Regulations, and which will enable Service Provider compliance with the requirements of these Rules and Regulations.

5.15.2 Procedures Manual:

The Corporation shall issue to all Service Providers a manual on Procedures for Implementing the Pretreatment/Industrial Waste Control Program of the Corporation (Procedures Manual). The Procedures Manual shall set forth Corporation requirements on formulating, funding, and implementing Pretreatment/Industrial Waste Control Program procedures, and shall provide guidance to Service Providers on implementing the procedural requirements.

Where necessary to maintain continued compliance with applicable federal and state regulations, or these Rules and Regulations, or to facilitate the operation of the Pretreatment/Industrial Waste Control Program, the Corporation may from time to time amend the Procedures Manual, and shall provide notice of such amendments to all Service Providers.

The following subsections highlight the procedural requirements that will be more fully presented in the Procedures Manual to be adopted by the Corporation.

5.15.3 Industrial Waste Survey:

Each Service Provider shall formulate and implement procedures for conducting ongoing, comprehensive industrial waste surveys to locate and identify all Significant Industrial Users discharging to the Service Provider's sewer system.

5.15.4 Notification to Industrial Users:

Each Service Provider is responsible for notifying its Industrial Users of their obligations under the Pretreatment/Industrial Waste Control Program.

5.15.5 Permitting of Significant Industrial Users:

Each Service Provider shall control, through permits, industrial waste discharges from each Significant Industrial User within its service area.

The Corporation shall make the final determination as to whether a particular Industrial User is a Significant Industrial User. To this end, the Corporation may require that a Service Provider collect and forward to the Corporation all information necessary to make this determination.

In the event that a Service Provider fails to issue a suitable permit to a Significant Industrial User upon notification to do so by the Corporation, the Corporation shall deny service to the Significant Industrial User, and may impose conditions upon the Service Provider to take such steps as are necessary to provide such service.

5.15.6 Monitoring of Industrial Users:

Each Service Provider must sample, monitor, and inspect its Significant Industrial Users, and where appropriate, require industrial self-monitoring, at a frequency adequate to determine if such Users are in compliance with applicable Pretreatment/Industrial Waste Control Program Standards and Requirements.

5.15.7 Slug Discharge Determinations:

Each Service Provider must evaluate, at least every two (2) years, whether each Significant Industrial User needs a plan to control slug discharges. If needed, the Slug Control Plan must contain the minimum elements listed at 40 CFR §403.8(f)(2)(v).

5.15.8 Compliance Activities:

Each Service Provider is required to implement procedures for identifying violators of Pretreatment/Industrial Waste Control Program Standards and Requirements, and to diligently enforce such Standards and Requirements and provide suitable remedies for non-compliance.

5.15.9 Industrial User Reporting/Confidentiality:

Each Service Provider is required to receive and analyze self-monitoring reports and any other notices submitted by Industrial Users pursuant to the requirements of the Pretreatment/Industrial Waste Control Program. Where an Industrial User claims confidentiality for any information transmitted, the Service Provider must implement procedures to ensure that confidential information is treated in accordance with the procedures in 40 CFR Part 2 and/or 5 CCR 1002-63.

5.15.10 Public Participation:

- (a) Each Service Provider must comply with the public participation requirements of 40 CFR Part 25 in the enforcement of National Pretreatment Standards.
- (b) Each Service Provider must make all information collected under the Pretreatment/Industrial Waste Control Program, except those documents

legitimately classified as "confidential," available for public review and copying to the extent required by 40 CFR §403.14 and the ARS, Title 39 (Public Records, Printing, and Notices).

- (c) The Corporation will publish an annual notice in the newspaper with the largest daily circulation within the Corporation, a list of Users that were found to be in significant noncompliance during the previous year with Pretreatment Standards or other Pretreatment Requirements. For the purposes of this provision, "significant noncompliance" is as defined at 40 CFR §403.8(f)(2)(vii).

5.15.11 Information Transmittal:

Each Service Provider shall transmit to the Corporation, in a timely manner, all documents as necessary to enable the Corporation to effectively administer the Pretreatment/Industrial Waste Control Program. Such documents shall include:

- (a) A certified copy of the Industrial Waste Discharge Ordinance or Resolution, and any amendments thereto, together with any Rules and Regulations issued pursuant to such ordinance or resolution.
- (b) Copies of all Industrial Waste permits and contracts issued or entered into pursuant to the requirements of the Pretreatment/Industrial Waste Control Program.
- (c) Copies of all industrial survey, monitoring, and inspection reports.
- (d) Any information needed to enable the Corporation to determine whether a particular Industrial User is subject to a particular Categorical Standard.
- (e) Notices of all compliance and enforcement activities, and all related correspondence.
- (f) An annual staffing, costs, and funding report, if requested by the Corporation Manager.

5.15.12 Staffing, Costs, and Funding:

Each Service Provider must provide sufficient resources and qualified personnel to carry out its responsibilities under the Pretreatment/Industrial Waste Control Program. Upon request of the Corporation, a Service Provider must submit to the Corporation a report describing personnel responsibilities, an itemization of program capital and operating costs, and a demonstration that adequate funds are available to support program activities.

5.16 Exemptions.

A Service Provider administering a Pretreatment Program, separate from that of the Corporation, which has been approved by the Regional Administrator of EPA or the Arizona Department of Environmental Quality in accordance with §403.11 of the Federal Pretreatment Regulations, may be exempted from compliance with certain

provisions of this Article 5, as determined by the Corporation.

5.17 Program Review.

The Corporation shall review Municipal ordinances or other Service Provider resolutions, measures, guidelines, or regulations, and amendments thereof, for conformance to 40 CFR §403.8(f)(1) Pretreatment Requirements for minimum legal authorities and for the inclusion of all other legal provisions mandated by these Rules and Regulations. The Corporation shall periodically review the enforcement efforts of Service Providers to ascertain whether Pretreatment/Industrial Waste Control Requirements and Standards are being diligently enforced at the local level.

Insofar as a Service Provider administers the Pretreatment/Industrial Waste Control Program, the Corporation shall periodically review the Service Provider's procedures, including, but not limited to, procedures for updating the industrial waste survey, and for inspecting, sampling, and monitoring industrial waste discharges, to ensure that each such Service Provider is administering the Program in technical conformance to "Procedures" and "Funding" requirements under 40 CFR §403.8(f)(2) and (3) of the Federal Pretreatment Regulations and to the provisions of these Rules and Regulations. Any significant Program changes shall be subject to Corporation approval.

5.18 Remedies.

5.18.1 Emergency Remedies:

Where a discharge to the Wastewater System reasonably appears to present an imminent endangerment to the health or welfare of persons, or presents or may present an endangerment to the environment, or threatens to interfere with the operation of the Corporation, the Corporation shall immediately initiate investigative procedures to identify the source of the discharge, and take any steps necessary to halt or prevent the discharge. If necessary, the Corporation shall seek injunctive relief against the violating Service Provider and any User contributing significantly to the emergency condition.

5.18.2 Routine Remedies:

If the Corporation determines that a Pretreatment/Industrial Waste Control Program as administered by a Service Provider is not in compliance with Pretreatment/Industrial Waste Control Requirements, or that the discharge from a Service Provider is not in compliance with Corporation Standards, the Corporation shall issue a notice setting forth the Requirements and Standards not being complied with and directing the Service Provider to attain conformance to these Requirements and Standards within a period of ten (10) days.

If after ten (10) days, the Service Provider has failed or refuses to comply with this notice, the Corporation may issue an additional notice setting forth remedial actions to be taken by the violating Service Provider and a time schedule for attaining compliance

with all Pretreatment/ Industrial Waste Control Requirements and Standards. If after thirty (30) days notice, the violating Service Provider has not taken necessary steps to correct the violation, the Corporation may assume in whole or in part Pretreatment/Industrial Waste Control Program responsibilities in lieu of the violating Service Provider. The Corporation may continue in this capacity until the violating Service Provider agrees to the original terms of the notice and any additional terms which the Corporation feels are necessary to ensure ongoing compliance by the Service Provider with all Pretreatment/ Industrial Waste Control Requirements and Standards. The Service Provider shall be liable for all costs associated with the Corporation's assumption of responsibilities on behalf of the Service Provider and the Corporation may recover such costs in any manner permitted by law.

5.19 Program Preemption.

Where the Corporation preempts a Service Provider in the execution of Pretreatment/Industrial Waste Control Program responsibilities, the Corporation shall directly enforce Federal Pretreatment Standards, including Categorical Standards, and the provisions of Article 5 of these Rules and Regulations against the Industrial Users located within the service area of the Service Provider. The Corporation may request that all industrial self-monitoring reports, including those required under 40 CFR §403.12, be conveyed directly to the Corporation. Moreover, the Corporation shall carry out all inspection and sampling activities necessary to monitor compliance with Pretreatment/Industrial Waste Control Standards and Requirements. Where Program preemption occurs, the Corporation shall have the right to seek injunctive relief against the Service Provider and any Industrial User in order to obtain full compliance with Pretreatment/Industrial Waste Control Standards and Requirements. The Corporation shall bill and the Service Provider shall be liable for costs incurred by the Corporation in conjunction with the administration of the Program in lieu of the Service Provider, and the Corporation may recover such costs, including attorney fees and costs, in any manner permitted by law.

The Corporation shall have the right to require the cessation of any industrial wastewater discharge in violation of Pretreatment/Industrial Waste Control Standards and Requirements. Where the Corporation finds an Industrial User to be in violation of any Pretreatment/Industrial Waste Control Standard or Requirement, the Corporation may require the Industrial User to enter into a bilateral contract with the Corporation containing any conditions, including conditions relating to the installment of pretreatment or monitoring facilities, necessary to ensure compliance with Pretreatment/Industrial Waste Control Standards and Requirements. At the discretion of the Corporation, these conditions may be incorporated into the municipal industrial waste discharge permit or Agreement once Program responsibilities are returned to the Service Provider.

5.20 Program Delegation.

Any Service Provider may enter into an Agreement with the Corporation providing the Corporation with the legal authority to carry out technical and administrative procedures

necessary to implement the Pretreatment/ Industrial Waste Control Program at the local level. These procedures may include, among others, updating the industrial waste survey, providing technical services relating to the issuance and review of industrial waste discharge permits, inspecting and monitoring industrial waste discharges, waste discharge facilities and operations of permittees, and providing technical assistance for local enforcement actions. Where Program delegation occurs, the delegation agreement shall contain provisions for the Corporation to recover the costs, including attorney fees and costs, incurred by the Corporation in conjunction with the administration of the Program on behalf of the Service Provider.

5.21 Corporation Monitoring.

For the purpose of determining the quantity, quality, and other characteristics of any sewage which shall be or may be delivered and discharged into the Wastewater System by a Service Provider, or into the system of a Service Provider by any User, the Corporation shall have the right at all reasonable times to enter upon and to inspect the Service Provider's system or any industrial or commercial installations connected thereto or any other connections which contribute sewage or Wastewater to the Service Provider's system and to inspect and copy records, to take samples and to make tests, measurements, and analyses of sewage or other wastes in, entering, or to be discharged into such Service Provider's system.

5.22 Specific Discharge Limitations for Service Providers.

No Service Provider shall discharge to the Wastewater System at any time or over any period of time wastewater containing any of the materials and substances in excess of the limitations provided under section 5.3.

Company: Liberty Utilities (Litchfield Park Water & Sewer) Corp. Decision No.: _____

Phone: _____

Effective Date: _____

PRE-TREATMENT TARIFF

PURPOSE

The purpose of this tariff is to enable **Liberty Utilities (Litchfield Park Water & Sewer) Corp.** ("Corporation") to set forth certain waste limitations and pretreatment standards that apply based on the class of commercial/industrial customer served by the Corporation's Palm Valley Water Reclamation Facilities, located in Goodyear, Arizona. Customer classes include dental offices, dry cleaners, food service establishments, photo imaging operations, RV Parks and pretreatment for industrial wastes. This tariff will govern the type and quality of waste discharged into the Corporation's wastewater collection system and treated at its wastewater treatment facilities.

This tariff incorporates pretreatment standards consistent with the Cities of Scottsdale, Mesa and Phoenix guidelines, which meet applicable Federal and State standards. In addition, the Corporation has a Code of Practice guideline attached to this tariff.

REQUIREMENTS

The requirements to be in compliance with the Rules of the Arizona Corporation Commission ("Commission"), specifically A.A.C. R14-2-603, 605, 607, and 609, the above pretreatment standards and guideline that governs this tariff are as follows:

1. Any customer disposing of industrial waste considered as hazardous under this tariff shall notify the Corporation in writing of any discharge into the Corporation's collection system. The specific information for the reporting and time-frame requirement to be submitted to the Corporation is 180 days per 40 CFR §403.12 (p)
2. The Corporation may require monitoring equipment facilities, at the customer's expense, to allow inspection, sampling, and flow measurement of any discharges as necessary to determine compliance with this tariff.
3. Subject to the provisions of A.A.C. R14-2-603, 607 and 609, the Corporation may terminate service or may deny service to a customer who fails to meet the pretreatment standards or to permit the inspecting and sampling of any discharge as required by this tariff.

Company: Liberty Utilities (Litchfield Park Water & Sewer) Corp. Decision No.: _____

Phone: _____

Effective Date: _____

4. The Corporation may suspend wastewater treatment service, in accordance with A.A.C. R14-2-609.B (without notice), when such suspension is necessary, in the opinion of the Corporation, in order to stop an actual or threatened discharge which presents or may present an imminent or substantial endangerment to the health or welfare of persons, to the environment, or causes the Corporation to violate any condition of its aquifer protection permit.
5. The Corporation shall give any new customer who is required to meet the pretreatment standards written notice of said requirement and shall be given a complete copy of this tariff and all attachments.
6. Any existing customer found to be in violation of this tariff shall be given written notice of such violation and a complete copy of this tariff with all attachments. If A.A.C. R14-2-609.B.1. is **not** applicable the customer shall be given thirty (30) days from the time such written notice is received to comply with this notice. If the customer can show good cause as to why the pretreatment standards cannot be met within thirty (30) days, the Corporation may allow, at its sole discretion the customer an additional thirty (30) days to have the pretreatment standards met.
7. Consistent with the provisions of A.C.C. R14-2-607.B.1 and 2, each customer shall be responsible for maintaining and safeguarding all Corporation property installed on the customer's premises for the purpose of supplying utility service to that customer.

Attachment – Corporation's Code of Practice Guideline (22 page)

Websites:

Arizona Administrative Code (A.A.C.) Title 18, Article 9

www.azsos.gov/public_services/table_of_contents.htm

City of Phoenix:

www.municode.com/content/3849/13485/HTML/ch028.html

Code of Federal Register:

www.epa.gov/lawsregs/search/40cfr.html

APPROVED FOR FILING
DECISION NO. 76799



Fats Oils and Grease (FOG)

Fats, Oils and Grease (FOG) discharged into the sanitary sewer by commercial or industrial users can cause a number of problems in the sewer system. Grease and oil have poor solubility and tend to separate from the aqueous phase. Although this characteristic is advantageous in facilitating the separation of oil and grease in pretreatment devices such as grease traps and interceptors, it complicates the transportation of wastes in the sewer and can complicate treatment and disposal at the wastewater treatment plant.

FOG in wastewater from food service facilities can result in decreased carrying capacity of sewers due to congealed, cooled grease which coats the inside of the pipes. Once a pipe becomes constricted, the potential for a stoppage increases. Stoppages can and will eventually cause sanitary sewer overflows. In order to ensure efficient sewage treatment, protect the sewer system and protect public health, Liberty Utilities has established the following requirements for all commercial business accounts:

General Requirement

Any type of business where oil and grease may be discharged into a public sewer shall have an interceptor/trap. The interceptor or trap shall be of a type and capacity approved by Liberty Utilities.

- a) Each interceptor or trap shall be accessible at all times for inspection, cleaning and removal of grease and other material. Interceptors or traps installed outside of the building shall be constructed in such a manner so as to exclude the entrance of surface water and storm water.
- b) The Interceptor or trap shall be situated on the User's premises. Operation and maintenance of the interceptor/trap is the sole responsibility of the commercial sewer account.
- c) Building repair or remodels permitted for use requiring interceptors/traps shall be subject to these regulations.
- d) Waste discharges from fixtures, including but not limited to, scullery sinks, pot and pan sinks, mop sinks, soup kettles and floor drains shall be drained into the sanitary sewer through an interceptor/trap. Toilets, urinals, and other similar fixtures shall not drain through the interceptor/trap.
- e) Interceptor/traps shall be maintained in efficient operating condition. At minimum, grease traps must be **cleaned monthly** or as deemed necessary by the Pretreatment Inspector. The use of chemicals, bacteria, or other agents to dissolve grease or otherwise clean grease interceptors/traps is specifically prohibited. No such grease shall be introduced into any drainage piping leaving the premises by public or private sewer.
- f) Large capacity concrete type interceptors (500-gallon capacity or greater) shall have a suitable box to provide access for collection of wastewater samples. Large interceptors **must be serviced every three (3) months** or as deemed necessary by the Pretreatment Inspector.
- g) Each appliance connected to a pre-cast under sink type grease trap shall have a flow device installed. No dishwashers may be connected to these types of grease traps.
- h) A record of grease trap cleaning or copies of grease interceptor servicing (waste disposal manifest) must be maintained for the previous twelve month period on-site and a copy sent to the following fax or email address below.



Liberty Utilities

ORIGINAL

PLEASE E-MAIL OR FAX ALL NEW OR UPDATED MANIFESTS TO THE INFORMATION LISTED
BELOW

Liberty Utilities Pretreatment

Attn: Daniel Romo

Phone: 623-302-0191

Fax: 623-935-3008

Email: Daniel.romo@libertyutilities.com

Applies to all WATER and WASTEWATER service areas

PART EIGHT

ALTERNATE RATES FOR WATER AND WASTEWATER (ARWW)
DOMESTIC SERVICE - SINGLE FAMILY ACCOMMODATION

APPLICABILITY

Applicable to residential water and wastewater service for domestic use rendered to low-income households where the customer meets all the program qualifications and special conditions of this rate schedule. Acceptance into the program is subject to verification of income source.

TERRITORY

Within all customer service areas served by Liberty Utilities (Litchfield Park Water & Sewer) Corp. ("Liberty Utilities").

RATES

Thirty percent (30%) discount applied to the regular filed tariff.

PROGRAM QUALIFICATIONS

1. The Liberty Utilities bill must be in your name and the address must be your primary residence or you must be a tenant receiving water service by a sub-metered system.
2. You may not be claimed as a dependent on another person's tax return.
3. You must reapply each time you move residences.
4. You must renew your application once every two (2) years, or sooner, if requested.
5. You must recertify each year by submitting a declaration attesting to your continuing eligibility, and provide one of the following items as proof of eligibility: 1) copy of tax return from prior year (proof of gross income); or 2) copy of complete W2 form with gross income calculation from prior year; or 3) copy of welfare / current eligibility letter for food stamps (dated).
6. You must notify Liberty Utilities within thirty (30) days if you become ineligible for ARWW.
7. Your total gross annual income of all persons living in your household cannot exceed the income levels below:

Applies to all WATER and WASTEWATER service areas
PART EIGHT
ALTERNATE RATES FOR WATER AND WASTEWATER (ARWW)
DOMESTIC SERVICE - SINGLE FAMILY ACCOMMODATION

Effective August 1, 2018

<u>No. of Person in Household</u>	<u>Total Gross Annual Income*</u>
1	\$18,210
2	\$24,690
3	\$31,170
4	\$37,650
5	\$44,130
6	\$50,610

For each additional person residing in the household, add \$6,480

***Qualifying annual incomes are set at 150 percent of the 2018 federal poverty levels.**

For the purpose of the program the "gross household income" means all money and non cash benefits, available for living expenses, from all sources, both taxable and non taxable, before deductions for all people who live in your home. This includes, but is not limited to:

Wages or salaries	Social Security, SSI, SSP	Rental or royalty income
Interest or dividends from:	Scholarships, grants, or other aid	Profit from self-employment
Savings account, stocks or bonds	used for living expenses	(IRS form Schedule C, Line 29)
Unemployment benefits	Disability payments	Worker's Compensation
TANF (AFDC)	Food Stamps	Child Support
Pensions	Insurance settlements	Spousal Support
Gifts		

Issued: August 9, 2018

Effective: August 1, 2018

ISSUED BY:
 Matthew Garlick, President
 Liberty Utilities (Litchfield Park Water & Sewer) Corp.
 12725 W. Indian School Road, Suite D-101
 Avondale, AZ 85392
 Decision No. XXXXX

APPROVED FOR FILING
DECISION NO. 76799

Applies to all WATER and WASTEWATER service areas

PART EIGHT

**ALTERNATE RATES FOR WATER AND WASTEWATER (ARWW)
DOMESTIC SERVICE - SINGLE FAMILY ACCOMMODATION**

SPECIAL CONDITIONS

1. Application: An application on a form authorized by the Commission is required for each request for service under this schedule. A customer must reapply every two (2) years.
2. Recertification: A customer enrolled in the ARWW program must, each year, recertify by submitting a declaration attesting to continuing eligibility, and provide one of the following items as proof of eligibility: 1) copy of tax return from prior year (proof of gross income); or 2) copy of complete W2 form with gross income calculation from prior year; or 3) copy of welfare / current eligibility letter for food stamps (dated).
3. Commencement of Rate: Eligible customers whose applications have been approved shall be billed on this schedule commencing with the next regularly scheduled billing period that follows receipt of application by Liberty Utilities.
4. Verification: Information provided by the applicant is subject to verification by Liberty Utilities. Refusal or failure of a customer to provide documentation of eligibility acceptable to Liberty Utilities, upon request by Liberty Utilities, shall result in removal from this rate schedule.
5. Notice from Customer: It is the customer's responsibility to notify Liberty Utilities if there is a change of eligibility status.
6. Rebilling: Customers may be re-billed retroactively for periods of ineligibility under the applicable rate schedule.
7. Master-metered: A reduction will be calculated in the bill of master-metered customers, who have sub-metered tenants that meet the income eligibility criteria, so an equivalent discount (30%) can be passed through to eligible customer(s).
8. Participation Cap: The ARWW program is limited to 5,000 water division customers and 5,000 wastewater division customers. Applications will be reviewed and approved on a first come, first served basis. Applicants will be placed on a waiting list if the participation cap has been met.

Applies to all WATER and WASTEWATER service areas

PART EIGHT

**ALTERNATE RATES FOR WATER AND WASTEWATER (ARWW)
DOMESTIC SERVICE - SINGLE FAMILY ACCOMMODATION**

RECOVERY OF COST OF LOW INCOME TARIFF AND CUSTOMER SURCHARGES

Under the terms of Company's Alternate Rates for Water and Wastewater (ARWW) Domestic Service, qualifying low-income customers receive a 30 percent discount applied to the Company's regular filed tariff rates for water and wastewater service. The cost of the ARWW tariff shall be recovered by Company from a monthly low income tariff surcharge on all residential and non-residential water and wastewater customers who are not participating in the ARWW program. Specifically, Company is entitled to seek recovery of direct costs (*i.e.*, those costs directly associated with the program, and would not be incurred in the absence of the program). Company shall account for those direct costs separately from other operating costs.

Company shall be entitled to implement a low income tariff surcharge on non-participating residential and non-residential water and wastewater customers as follows.

- For customers participating in ARWW, the Company shall maintain separate balancing accounts for water and wastewater customers detailing the beginning and ending balance of the cumulative unrecovered program costs each month.
- Company's authorized rate of return shall be applied monthly to the average of the beginning balances of the cumulative unrecovered program costs for water and wastewater service and included in the beginning balances for the following month.
- Using the separate balancing accounts for water and wastewater customers, Company shall calculate separate monthly surcharges for water and wastewater customers. The water and wastewater surcharges shall be calculated as follows:

Water:

(Ending Balance for Low-Income Tariff Balancing Account including amortized carrying costs during recovery period / Total gallons sold to non-participating customers)

Wastewater:

(Ending Balance for Low-Income Tariff Balancing Account including amortized carrying costs during recovery period / Number of active non-participating wastewater connections at year end) / 12

- The ending balance in the balancing accounts shall equal the beginning balances plus discounts allowed on bills for the twelve month tracking period, plus direct program costs incurred in the twelve month period plus carrying charges less surcharge fees billed in the twelve month tracking period.
- Company shall implement monthly water and wastewater surcharges for the ARWW program for each twelve month period of the ARWW Program. Company shall calculate the monthly water and wastewater surcharges each year based on the active number of water and wastewater connections for each respective system as of December 31 of the prior year. Company shall file notice of the water and wastewater surcharges, along with a report on the ARWW Program, with the Arizona Corporation Commission on or before January 31 and the surcharges shall be implemented on customer bills in February of each year with the recovery period ending in January of the following year.

Application for Alternate Rates for Water and Wastewater (ARWW)

To qualify for Liberty Utilities ARWW please check (✓) all that apply:

- ☐ I am a Liberty Utilities residential customer and the Liberty Utilities account is in my name.
☐ I am a sub-metered tenant within the Liberty Utilities service area.
☐ My household income is at or below the income level in the listing below.

Household Size	Total Gross Annual Income from All Sources
1	\$18,210
2	\$24,690
3	\$31,170
4	\$37,650
5	\$44,130
6	\$50,610

For each additional person residing in the household, add \$6,480.

The definition of "gross household income" (before taxes) is all money and non cash benefits available for living expenses from all sources, both taxable and non taxable, before deductions, including expenses, for all people who live in your home. **This includes, but is not limited to the following (please check (✓) all that apply):**

- | | |
|---|--|
| <input type="checkbox"/> Wages, salaries or profit from self-employment | <input type="checkbox"/> Social Security, SSI or SSP |
| <input type="checkbox"/> Disability and/or Workers' Compensation payments | <input type="checkbox"/> Food Stamps |
| <input type="checkbox"/> Insurance and/or legal settlements | <input type="checkbox"/> TANF (AFDC) |
| <input type="checkbox"/> Pensions | <input type="checkbox"/> Veterans Affairs benefits |
| <input type="checkbox"/> Spousal and/or child support | <input type="checkbox"/> Unemployment benefits |
| <input type="checkbox"/> Scholarships, grants, or other aid used for living | <input type="checkbox"/> Rental and/or royalty income |
| <input type="checkbox"/> Interest/dividends from savings, stocks, bonds, or retirement accounts | <input type="checkbox"/> Cash, gifts and/or other income |

Please print the following information. **Incomplete information will delay your discount.** The name used to apply for the discount must be the same as the name on the Liberty Utilities statement.

PLEASE PRINT LEGIBLY									
Liberty Utilities Account Number (As shown on statement)									
Total No. of persons living in household:		Household's Total Gross Annual Income:				Contact Phone Number			
		\$							
Name as shown on Liberty Utilities statement									
Liberty Utilities Service Address									
City		State				Zip Code			

Please attach one of the items listed as proof of income for eligibility verification: Copy of tax return from prior year (proof of gross income), or copy of complete W2 form with gross income calculation from prior year, or copy of welfare /current eligibility letter for food stamps (dated).

By signing below, I certify under penalty of perjury that this information is true and correct under the laws of the State of Arizona. I will provide proof of income and I will notify Liberty Utilities of any changes that affect my eligibility. I further authorize Liberty Utilities to verify source of income provided above. I understand that if I receive the discount without meeting the qualifications for it, I may be required to pay back the discount I received.

Customer Signature _____

Date _____

Note: An Application for ARWW must be submitted every two years. A Declaration of Eligibility must be submitted annually for verification. Please allow 30-45 days for processing.

Office Use Only: Date Verified _____

Verified By _____

Expires _____

Issued: August 9, 2018

Effective: August 1, 2018

ISSUED BY:
 Matthew Garlick, President
 Liberty Utilities (Litchfield Park Water & Sewer) Corp.
 12725 W. Indian School Road, Suite D-101
 Avondale, AZ 85392
 Decision No. XXXXX

APPROVED FOR FILING
 DECISION NO. 76799

**Declaration of Eligibility
Alternate Rates for Water and Wastewater (ARWW)**

To recertify enrollment in the ARWW Program please fill out the following attesting to continuing eligibility:

PLEASE PRINT LEGIBLY														
Name as shown on Liberty Utilities statement														
Liberty Utilities Account Number (As shown on statement)														
Liberty Utilities Service Address														
City					State					Zip Code				
Contact Phone Number										Work Phone Number				

I, _____

Your Name (Please Print)

Last submitted an Application for Alternative Rates (ARWW)
on _____

(dd/mm/yyyy)

and hereby confirm my eligibility for the year ending _____

(dd/mm/yyyy)

Please attach one of the items listed below as proof of income for eligibility verification:

Copy of tax return from prior year (proof of gross income); or
copy of complete W2 form with gross income calculation from prior year; or
copy of welfare /current eligibility letter for food stamps (dated).

By signing below, I certify under penalty of perjury that this information is true and correct under the laws of the State of Arizona. I will provide proof of income and I will notify Liberty Utilities of any changes that affect my eligibility. I further authorize Liberty Utilities to verify source of income provided above. I understand that if I receive the discount without meeting the qualifications for it, I may be required to pay back the discount I received.

Customer Signature _____

Date _____

Note: An Application for ARWW must be submitted every two years. A Declaration of Eligibility must be submitted annually for verification.

Issued: August 9, 2018

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ISSUED BY:
Matthew Garlick, President
Liberty Utilities (Litchfield Park Water & Sewer) Corp.
12725 W. Indian School Road, Suite D-101
Avondale, AZ 85392
Decision No. XXXXXX

**APPROVED FOR FILING
DECISION NO. 76799**

**Liberty Utilities (Litchfield Park Water & Sewer) Corp.
Alternate Rates for Water and Wastewater (ARWW)****Applicability**

Applicable to residential water and wastewater service for domestic use rendered to low-income households where the customer meets all the Program Qualifications and Special Conditions of this rate schedule.

Territory

Within all customer service areas served by Liberty Utilities (Litchfield Park Water & Sewer) Corp.

Discount

Thirty percent (30%) discount applied to the regular filed tariff. The discount will be applied to the customer's total bill before any adjustments and application of any other taxes, credit, penalties or fees.

Program Qualifications

- The Liberty Utilities account must be in your name and the address must be your primary residence in our service area or you must be a tenant receiving water service by a sub-metered system.
- You may not be claimed as a dependent on another person's tax return.
- You must reapply each time you move residences.
- You must renew your application once every two (2) years or sooner if requested.
- You must recertify each year by submitting a declaration attesting to your continuing eligibility, and provide one of the following items as proof of eligibility: 1) copy of tax return from prior year (proof of gross income); or 2) copy of complete W2 form with gross income calculation from prior year; or 3) copy of welfare/current eligibility letter for food stamps (dated).
- You must notify Liberty Utilities within thirty (30) days if you become ineligible for ARWW.
- Your total gross annual income of all persons living in your household cannot exceed the income levels provided on the application.

Special Conditions

- You must fill out and sign the ARWW Application completely. Incomplete information will delay your discount. You must reapply every two (2) years.
- You must recertify your enrollment in the ARWW annually by submitting a Declaration of Eligibility and providing one of the following items as proof of eligibility: 1) copy of tax return from prior year (proof of gross income); or 2) copy of complete W2 form with gross income calculation from prior year; or 3) copy of welfare/current eligibility letter for food stamps (dated).
- Customers shall be billed on this schedule commencing with the next regularly scheduled billing period that follows the receipt and approval of the application by Liberty Utilities.
- Documentation of your gross annual income must be provided to Liberty Utilities for verification of eligibility for ARWW. Refusal or failure to provide documentation of acceptable eligibility to Liberty Utilities shall result in removal from this rate schedule.
- It is the customer's responsibility to notify Liberty Utilities if there is a change in eligibility status.
- You may be re-billed for any periods of ineligibility under the applicable rate schedule.
- Master-metered customers who have sub-metered tenants will receive a reduction in the billing. Sub-metered tenants must qualify and meet the income eligibility criteria so an equivalent discount (30%) can be passed through to eligible customer(s).
- The ARWW program is limited to 5,000 water division customers and 5,000 wastewater division customers.

How to Submit Completed ARWW Application and/or Declaration of Eligibility

Mail, Fax or Email your ARWW Application and Declaration of Eligibility to:

Liberty Utilities (Litchfield Park Water & Sewer) Corp.

12725 W. Indian School Rd. Ste. D101

Avondale, AZ 85392

Fax: 623-935-1020

Email: customerserviceavondale@libertywater.com

Issued: August 9, 2018

Effective: August 1, 2018

ISSUED BY:
Matthew Garlick, President
Liberty Utilities (Litchfield Park Water & Sewer) Corp.
12725 W. Indian School Road, Suite D-101
Avondale, AZ 85392
Decision No. XXXXX

**APPROVED FOR FILING
DECISION NO. 76799**

PART NINE
HOOK-UP FEE TARIFF

WATER HOOK-UP FEE

I. Purpose and Applicability

The purpose of the off-site hook-up fees payable to Liberty Utilities (Litchfield Park Water & Sewer) Corp. (the "Company") pursuant to this tariff is to equitably apportion the costs of constructing additional off-site facilities necessary to provide water production, delivery, storage and pressure among all new service connections. These charges are applicable to all new service connections after the effective date of this tariff. The charges are one-time charges and are payable as a condition to Company's establishment of service, as more particularly provided below.

II. Definitions

Unless the context otherwise requires, the definitions set forth in R-14-2-401 of the Arizona Corporation Commission's ("Commission") rules and regulations governing water utilities shall apply in interpreting this tariff schedule.

"Applicant" means any person or entity requesting service to one or more new service connections, and may include Developers and/or Builders of new residential subdivisions and/or commercial and industrial properties.

"Company" means Liberty Utilities (Litchfield Park Water & Sewer) Corp. – Water Division.

"Main Extension Agreement" means any agreement whereby an Applicant, Developer and/or Builder agrees to advance the costs of the installation of water facilities necessary to the Company to serve new service connections within a development, or installs such water facilities necessary to serve new service connections and transfers ownership of such water facilities to the Company, which agreement shall require the approval of the Commission pursuant to A.A.C. R-14-2-406, and shall have the same meaning as "Water Facilities Agreement" or "Line Extension Agreement."

"Off-site Facilities" means wells, storage tanks and related appurtenances necessary for proper operation, including engineering and design costs. Off-site facilities may also include booster pumps, pressure tanks, transmission mains and related appurtenances necessary for proper operation if these facilities are not for the exclusive use of the applicant and will benefit the entire water system.

"Service Connection" means and includes all service connections for single-family residential, commercial, industrial or other uses, regardless of meter size.

PART NINE
HOOK-UP FEE TARIFF – WATER

III. Water Hook-up Fee

For each new service connection, the Company shall collect an off-site hook-up fee derived from the following table:

Meter Size	Size Factor	Total Fee
5/8" x 3/4"	1	\$1,800
3/4"	1.5	\$2,700
1"	2.5	\$4,500
1-1/2"	5	\$9,000
2"	8	\$14,400
3"	16	\$28,800
4"	25	\$45,000
6"	50	\$90,000
8"	80	\$144,000
10" (turbine)	145	\$261,000
12" (turbine)	215	\$387,000

(A) For "Active Adult" communities with demonstrated age-restricted zoning and/or CCRs providing for age-restricted living, the Total Fee for domestic water use shall be Two-Thirds (2/3) of the Total Fee shown above for Residential properties, based on an ERU factor of 190 gallons per day. All non-domestic service connections shall pay the Hook-up fee per the above table.

IV. Terms and Conditions

(A) Assessment of One Time Off-Site Hook-up Fee: The off-site hook-up fee will be assessed only once per residential parcel. For non-residential Properties, that reside on one parcel but has future additional construction that requires an upsize in water meters or additional water meters, the Company shall assess an additional Hook-up fee based on Hook-up Fees associated with old water meter size and new water meter size difference in fees or the Hook-up Fee associated with the additional requested water meter size.

(B) Use of Off-Site Hook-up Fee: Off-site hook-up fees may only be used to pay for capital items of Off-site Facilities, or for repayment of loans obtained to fund the cost of installation of off-site facilities. Off-site hook-up fees shall not be used to cover repairs, maintenance, or operational costs. The Company shall record amounts collected under the tariff as CIAC; however, such amounts shall not be deducted from rate base until such amounts have been expended for plant.

PART NINE
HOOK-UP FEE TARIFF – WATER

(C) Time of Payment:

- 1) For those requiring a Main Extension Agreement: In the event that the person or entity that will be constructing improvements ("Applicant", "Developer" or "Builder") is otherwise required to enter into a Main Extension Agreement, whereby the Applicant, Developer or Builder agrees to advance the costs of installing mains, valves, fittings, hydrants and other on-site improvements in order to extend service in accordance with R-14-2-406(B), payment of the Hook-Up Fees required hereunder shall be made by the Applicant, Developer or Builder no later than within 15 calendar days after receipt of notification from the Company that the Utilities Division of the Arizona Corporation Commission has approved the Main Extension Agreement in accordance with R-14-2-406(M).
- 2) For those connecting to an existing main: In the event that the Applicant, Developer or Builder for service is not required to enter into a Main Extension Agreement, the Hook-Up Fee charges hereunder shall be due and payable at the time the meter and service line installation fee is due and payable.

(D) Off-Site Facilities Construction by Developer: Company and Applicant, Developer, or Builder may agree to construction of off-site facilities necessary to serve a particular development by Applicant, Developer or Builder, which facilities are then conveyed to Company. In that event, Company shall credit the total cost of such off-site facilities as an offset to off-site hook-up fees due under this Tariff. If the total cost of the off-site facilities constructed by Applicant, Developer or Builder and conveyed to Company is less than the applicable off-site hook-up fees under this Tariff, Applicant, Developer or Builder shall pay the remaining amount of off-site hook-up fees owed hereunder. If the total cost of the off-site facilities contributed by Applicant, Developer or Builder and conveyed to Company is more than the applicable off-site hook-up fees under this Tariff, Applicant, Developer or Builder shall be refunded the difference upon acceptance of the off-site facilities by the Company.

(E) Failure to Pay Charges; Delinquent Payments: The Company will not be obligated to make an advance commitment to provide or actually provide water service to any Developer, Builder or other applicant for service in the event that the Developer, Builder or other applicant for service has not paid in full all charges hereunder. Under no circumstances will the Company set a meter or otherwise allow service to be established if the entire amount of any payment due hereunder has not been paid.

PART NINE
HOOK-UP FEE TARIFF – WATER

(F) Large Subdivision/Development Projects: In the event that the Applicant, Developer or Builder is engaged in the development of a residential subdivision containing more than 150 lots, the Company may, in its discretion, agree to payment of off-site hook-up fees in installments. Such installments may be based on the residential subdivision development's phasing, and should attempt to equitably apportion the payment of charges hereunder based on the Applicant's, Developer's or Builder's construction schedule and water service requirements. In the alternative, the Applicant, Developer, or Builder shall post an irrevocable letter of credit in favor of the Company in a commercially reasonable form, which may be drawn by the Company consistent with the actual or planned construction and hook up schedule for the subdivision and/or development.

(G) Off-Site Hook-Up Fees Non-refundable: The amounts collected by the Company as Hook-Up Fees pursuant to the off-site hook-up fee tariff shall be non-refundable contributions in aid of construction.

(H) Use of Off-Site Hook-Up Fees Received: All funds collected by the Company as off-site hook-up fees shall be deposited into a separate interest bearing trust account and used solely for the purposes of paying for the costs of installation of off-site facilities, including repayment of loans obtained for the installation of off-site facilities that will benefit the entire water system.

(I) Off-Site Hook-up Fee in Addition to On-site Facilities: The off-site hook-up fee shall be in addition to any costs associated with the construction of on-site facilities under a Main Extension Agreement pursuant to A.A.C. R14-2-406 and any applicable Main Extension Tariff.

(J) Disposition of Excess Funds: After all necessary and desirable off-site facilities are constructed utilizing funds collected pursuant to the off-site hook-up fees, or if the off-site hook-up fee has been terminated by order of the Arizona Corporation Commission, any funds remaining in the trust shall be refunded. The manner of the refund shall be determined by the Commission at the time a refund becomes necessary.

(K) Fire Flow Requirements: In the event the applicant for service has fire flow requirements that require additional facilities beyond those facilities whose costs were included in the off-site hook-up fee, and which are contemplated to be constructed using the proceeds of the off-site hook-up Fee, the Company may require the applicant to install such additional facilities as are required to meet those additional fire flow requirements, as a non-refundable contribution, in addition to the off-site hook-up fee.

(L) Status Reporting Requirements to the Commission: The Company shall submit a calendar year Off-Site Hook-Up Fee status report each January to Docket Control for the prior twelve (12) month period, beginning January 2019, until the hook-up fee tariff is no longer in effect. This status report shall contain a list of all customers that have paid the hook-up fee tariff, the amount each has paid, the physical location/address of the property in respect of which such fee was paid, the amount of money spent from the account, the amount of interest earned on the funds within the tariff account, and a list of all facilities that have been installed with the tariff funds during the 12 month period.

PART NINE
HOOK-UP FEE TARIFF

WASTEWATER HOOK-UP FEE

I. Purpose and Applicability

The purpose of the off-site facilities hook-up fees payable to Liberty Utilities (Litchfield Park Water & Sewer) Corp. (the "Company") pursuant to this tariff is to equitably apportion the costs of constructing additional off-site facilities to provide wastewater treatment and disposal facilities among all new service laterals. These charges are applicable to all new service laterals undertaken via Collection Main Extension Agreements, or requests for service not requiring a Collection Main Extension Agreement, entered into after the effective date of this tariff. The charges are one-time charges and are payable as a condition to Company's establishment of service, as more particularly provided below.

II. Definitions

Unless the context otherwise requires, the definitions set forth in R-14-2-601 of the Arizona Corporation Commission's ("Commission") rules and regulations governing sewer utilities shall apply interpreting this tariff schedule.

"Applicant" means any party entering into an agreement with Company for the installation of wastewater facilities to serve new service laterals, and may include Developers and/or Builders of new residential subdivisions, and industrial or commercial properties.

"Company" means Liberty Utilities (Litchfield Park Water & Service) Corp. – Wastewater Division.

"Collection Main Extension Agreement" means an agreement whereby an Applicant, Developer and/or Builder agrees to advance the costs of the installation of wastewater facilities necessary to serve new service laterals, or install wastewater facilities to serve new service laterals and transfer ownership of such wastewater facilities to the Company, which agreement does not require the approval of the Commission pursuant to A.A.C. R-14-2-606, and shall have the same meaning as "Wastewater Facilities Agreement."

"Off-site Facilities" means the wastewater treatment plant, sludge disposal facilities, effluent disposal facilities and related appurtenances necessary for proper operation, including engineering and design costs. Offsite facilities may also include lift stations, force mains, transportation mains and related appurtenances necessary for proper operation if these facilities are not for the exclusive use of the applicant and benefit the entire wastewater system.

"Service Lateral" means and includes all service laterals for single-family residential, commercial, industrial or other uses.

PART NINE
HOOK-UP FEE TARIFF – WASTEWATER

III. Wastewater Hook-up Fee

For each new residential service lateral, the Company shall collect a Hook-Up Fee of \$1,800 based on the Equivalent Residential Unit ("ERU") of 320 gallons per day. Commercial and industrial applicants shall pay based on the total ERUs of their development calculated by dividing the estimated total daily wastewater capacity usage needed for service using standard engineering standards and criteria by the ERU factor of 320 gallons per day. For "Active Adult" communities with demonstrated age-restricted zoning and/or CCRs providing for age-restricted living, the Hook-Up Fee for residential properties shall be \$1,070, based on an ERU factor of 190 gallons per day.

IV. Terms and Conditions

(A) Assessment of One Time Off-Site Facilities Hook-up Fee: The off-site facilities hook-up fee may be assessed only once per residential parcel. For non-residential properties that reside on one parcel but have future additional construction that adds additional impact to the Company's existing wastewater infrastructure, an incremental Hook-Up Fee shall be applied based upon the additional EDU equivalents added by such construction activity.

(B) Use of Off-Site Facilities Hook-up Fee: Off-site facilities hook-up fees may only be used to pay for capital items of Off-site Facilities, or for repayment of loans obtained to fund the cost of installation of off-site facilities. Off-site hook-up fees shall not be used to cover repairs, maintenance, or operational costs. The Company shall record amounts collected under the tariff as CIAC; however, such amounts shall not be deducted from rate base until such amounts have been expended for plant.

(C) Time of Payment:

- (1) In the event that the person or entity that will be constructing improvements ("Applicant", "Developer" or "Builder") is otherwise required to enter into a Collection Main Extension Agreement, payment of the fees required hereunder shall be made by the Applicant, Developer or Builder within 15 days of execution of a Main Extension Agreement.
- (2) In the event that the Applicant, Developer or Builder for service is not required to enter into a Collection Main Extension Agreement, the Hook-Up Fee charges hereunder shall be due and payable at the time wastewater service is requested for the property.

PART NINE
HOOK-UP FEE TARIFF – WASTEWATER

(D) Off-Site Facilities Construction by Developer: Company and Applicant, Developer, or Builder may agree to construction of off-site facilities necessary to serve a particular development by Applicant, Developer or Builder, which facilities are then conveyed to Company. In that event, Company shall credit the total cost of such off-site facilities as an offset to off-site hook-up fees due under this Tariff. If the total cost of the off-site facilities constructed by Applicant, Developer or Builder and conveyed to Company is less than the applicable off-site hook-up fees under this Tariff, Applicant, Developer or Builder shall pay the remaining amount of off-site hook-up fees owed hereunder. If the total cost of the off-site facilities contributed by Applicant, Developer or Builder and conveyed to Company is more than the applicable off-site hook-up fees under this Tariff, Developer or Builder shall be refunded the difference upon acceptance of the off-site facilities by the Company.

(E) Failure to Pay Charges; Delinquent Payments: The Company will not be obligated to make an advance commitment to provide or actually provide wastewater service to any Developer, Builder or other applicant for service in the event that the Developer, Builder or other applicant for service has not paid in full all charges hereunder. Under no circumstances will the Company connect service or otherwise allow service to be established if the entire amount of any payment has not been paid.

(F) Large Subdivision and/or Development Projects: In the event that the Applicant, Developer or Builder is engaged in the development of a residential subdivision and/or development containing more than 150 lots, the Company may, in its reasonable discretion, agree to payment of off-site hook-up fees in installments. Such installments may be based on the residential subdivision and/or development's phasing, and should attempt to equitably apportion the payment of charges hereunder based on the Applicant's, Developer's or Builder's construction schedule and water service requirements. In the alternative, the Applicant, Developer, or Builder shall post an irrevocable letter of credit in favor of the Company in a commercially reasonable form, which may be drawn by the Company consistent with the actual or planned construction and hook up schedule for the subdivision and/or development.

(G) Off-Site Hook-Up Fees Non-refundable: The amounts collected by the Company pursuant to the off-site facilities hook-up fee tariff shall be non-refundable contributions in aid of construction.

(H) Use of Off-Site Hook-Up Fees Received: All funds collected by the Company as off-site facilities hook-up fees shall be deposited into a separate account and bear interest and shall be used solely for the purposes of paying for the costs of installation of off-site facilities, including repayment of loans obtained for the installation of off-site facilities.

(I) Off-Site Facilities Hook-up Fee in Addition to On-site Facilities: The off-site facilities hook-up fee shall be in addition to any costs associated with the construction of on-site facilities under a Collection Main Extension Agreement.

PART NINE
HOOK-UP FEE TARIFF – WASTEWATER

(J) Disposition of Excess Funds: After all necessary and desirable off-site facilities are constructed utilizing funds collected pursuant to the off-site facilities hook-up fees, or if the off-site facilities hook-up fee has been terminated by order of the Arizona Corporation Commission, any funds remaining in the trust shall be refunded. The manner of the refund shall be determined by the Commission at the time a refund becomes necessary.

(K) Status Reporting Requirements to the Commission: The Company shall submit a calendar year Off-Site Facilities Hook-Up Fee status report each January to Docket Control for the prior twelve (12) month period, beginning January 2019, until the hook-up fee tariff is no longer in effect. This status report shall contain a list of all customers that have paid the hook-up fee tariff, the amount each has paid, the physical location/address of the property in respect of which such fee was paid, the amount of money spent from the account, the amount of interest earned on the funds within the tariff account, and an itemization of all facilities that have been installed using the tariff funds during the 12 month period.

LIBERTY UTILITIES (LITCHFIELD PARK WATER & SEWER) CORP.

Sheet No. ____

DOCKET NO. SW-01428A-09-0103
W-01427A-09-0104
W-01427A-09-0116
W-01427A-09-0120
SW-01428A-13-0042
W-01427A-13-0043

Cancelling Sheet No. ____

Applies to all service areas

**ALTERNATE RATES FOR WATER AND WASTEWATER (ARWW)
SURCHARGE**

APPLICABILITY

Applicable to all customers of the Company not participating in the Alternate Rates for Water and Wastewater (ARWW) program, through which residential water and wastewater service for domestic use is rendered to low income households where the customer meets all the ARWW program qualifications and special conditions of the ARWW rate schedule.

TERRITORY

Within all customer service areas served by the Company.

RATES**Water Division**

A surcharge of \$0.0029 per 1,000 gallons will be applied each month to the bills of non-participating water division customers for recovery of the costs (discounts, direct costs, and carrying charges) associated with the ARWW program. The surcharge is the amount resulting from dividing the total program costs by the number of gallons sold to non-participating water division customers in the past 12-month tracking period.

Wastewater Division

A surcharge of \$0.04 will be applied each month to the bills of non-participating wastewater division customers for recovery of the costs (discounts, direct costs, and carrying charges) associated with the ARWW program. The surcharge is the amount resulting from dividing the total program costs by the number of bills issued to non-participating wastewater division customers in the past 12-month tracking period.

Issued: January 31, 2020

Effective: February 1, 2020

ISSUED BY:

Matthew Garlick, President
Liberty Utilities (Litchfield Park Water & Sewer) Corp.
12725 W. Indian School Road, Suite D-101
Avondale, AZ 85392
Decision No. 72026 (December 10, 2010)
Decision No. 74437 (April 18, 2014)



Applies to all service areas
CUSTOMER ASSISTANCE TARIFF
DOMESTIC SERVICE - SINGLE FAMILY ACCOMMODATION

DEPLOYED SERVICES MEMBER PROGRAM

This program allows the Company to provide a 15% discount to deployed service members of the United States Military.

The Company will provide the credit on the deployed service member's bill provided that the following criteria are met:

1. Deployment is not a "permanent change of station." Permanent change of station requires a service member to permanently change his or her place of residence, paid for by the applicable military branch. A service member's decision to keep a secondary residence in Arizona would be discretionary and would not qualify for this credit.
2. Deployed member does not have family living in the premises. Short term deployments, where a spouse and/or dependents remain in the United States would not qualify, as the service member would receive separate compensation from the military to cover domestic expenses while deployed.
3. The deployed service member is an active member of the military (*e.g.*, Air Force, Army, Coast Guard, Marines, and Navy), as defined by 10 U.S.C. § 101(a)(4), and includes any member of the Reserves or National Guard called to active duty.

ADMINISTRATION

1. Participation shall be determined on a first come, first served basis.
2. Each service member's eligibility must be verified based on written orders from the service member's command.
3. Continued eligibility will be determined periodically through a recertification process.
4. A customer that qualifies for more than one customer assistance program will only receive benefits from one program per year. Customer assistance benefits will not be combined or accumulated.
5. The Company is permitted to seek Commission approval to change participant limits based on level of participation.

The Company file with Docket Control, by March 1st each year, an annual report detailing the number of participants from the previous calendar year, the total amount of credits provided by the program, and the total of any program administrative costs.

Applies to all service areas
CUSTOMER ASSISTANCE TARIFF
DOMESTIC SERVICE - SINGLE FAMILY ACCOMMODATION

DISABLED MILITARY VETERAN PROGRAM

This program allows the Company to provide a 15% discount to disabled military veterans of the United States Military.

The Company will provide the credit on the disabled military veteran's bill provided that the following criteria are met:

1. Disabled military veteran was honorably discharged from the armed forces.
2. Disabled military veteran must have a permanent disability rating related to their military duty service.
3. The disabled military veteran must have been an active member of the military (*e.g.*, Air Force, Army, Coast Guard, Marines, and Navy), as defined by 10 U.S.C. § 101(a)(4), and includes any member of the Reserves or National Guard called to active duty.

ADMINISTRATION

1. Participation shall be determined on a first come, first served basis.
2. Each service member's eligibility must be verified based on documentation demonstrating a medical discharge or other written documentation from the United States Department of Defense or Department of Veteran Affairs.
3. Continued eligibility will be determined periodically through a recertification process.
4. A customer that qualifies for more than one customer assistance program will only receive benefits from one program per year. Customer assistance benefits will not be combined or accumulated.
5. The Company is permitted to seek Commission approval to change participant limits based on level of participation.
6. Qualifying annual incomes are set at 200 percent of the 2020 federal poverty levels. Acceptance into the program is subject to verification of income source.

Effective April 1, 2020

<u>No. of Person in Household</u>	<u>Total Gross Annual Income*</u>
1	\$19,140
2	\$25,860
3	\$32,580
4	\$39,300
5	\$46,020
6	\$52,740

For each additional person residing in the household, add \$6,720

Applies to all service areas
CUSTOMER ASSISTANCE TARIFF
DOMESTIC SERVICE - SINGLE FAMILY ACCOMMODATION

DISABLED MILITARY VETERAN PROGRAM

For the purpose of the program the "gross household income" means all money and non-cash benefits, available for living expenses, from all sources, both taxable and non-taxable, before deductions for all people who live in your home. This includes, but is not limited to:

Wages or salaries	Social Security, SSI, SSP	Rental or royalty income
Interest or dividends from:	Scholarships, grants, or other aid	Profit from self-employment
Savings account, stocks or bonds	used for living expenses	(IRS form Schedule C, Line 29)
Unemployment benefits	Disability payments	Worker's Compensation
TANF (AFDC)	Food Stamps	Child Support
Pensions	Insurance settlements	Spousal Support
Gifts		

The Company file with Docket Control, by March 1st each year, an annual report detailing the number of participants from the previous calendar year, the total amount of credits provided by the program, and the total of any program administrative costs.

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EXHIBIT 8

**ESTIMATED ANNUAL OPERATING REVENUE AND EXPENSES,
INCOME STATEMENTS, BALANCE SHEETS AND PLANT EXPENDITURES –
FIRST FIVE YEARS**

Liberty Utilities (Litchfield Park Water & Sewer) Corp.
Falcon Golf
Projected Incremental Balance Sheet

Exhibit 8

Line No.		2020	2021	2022	2023	2024	2025	2026	2027	2028
1	Assets									
2										
3	Utility Plant /1		2,630,602	2,630,602	2,630,602	2,630,602	2,630,602	2,630,602	2,630,602	2,630,602
4	Utility Plant /2									
5	Accumulated Depreciation /3		52,568	157,704	262,840	367,976	473,112	578,248	683,384	788,520
6										
7										
8	Total Assets		2,578,034	2,472,898	2,367,762	2,262,626	2,157,490	2,052,354	1,947,218	1,842,082
9										
10	Equity									
11										
12	Retained Earnings		56,377	20,631	112,754	112,754	204,877	204,877	297,000	297,000
13										
14	Total Equity		56,377	20,631	112,754	112,754	204,877	204,877	297,000	297,000
15										
16	Liabilities & Deferred Credits									
17	Current Liabilities		2,521,657	2,452,267	2,255,009	2,149,873	1,952,614	1,847,478	1,650,219	1,545,083
18	Contribution in Aid of Const. /4									
19	CIAC Amortization									
20	Total Liabilities and Deferred Credits		2,521,657	2,452,267	2,255,009	2,149,873	1,952,614	1,847,478	1,650,219	1,545,083
21										
22	Total Equity and Liabilities		2,578,034	2,472,898	2,367,762	2,262,626	2,157,490	2,052,354	1,947,218	1,842,082
23										
24			-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-

Liberty Utilities (Litchfield Park Water & Sewer) Corp.
Falcon Golf Water & Wastewater
Projected Plant and Depreciation

Exhibit 8

Page 1

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2020					2021					2022				
				Plant Additions	Depreciation	Plant Balance	A/D Balance	Net Plant	Plant Additions	Depreciation	Plant Balance	A/D Balance	Net Plant	Plant Additions	Depreciation	Plant Balance	A/D Balance	Net Plant
				Water														
1	301	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	303	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	304	Structures and Improvements	3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	305	Collecting and Impounding Res.	2.50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	306	Lake River and Other Intakes	2.50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	307	Wells and Springs	3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	308	Infiltration Galleries and Tunnels	6.67%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	309	Supply Mains	2.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	310	Power Generation Equipment	5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	310.1	Solar Generator	6.67%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	311	Electric Pumping Equipment	12.50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	320	Water Treatment Equipment	3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	320.1	Water Treatment Plant	3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	320.2	Chemical Solution Feeders	20.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	330	Dist. Reservoirs & Standpipe	2.22%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	330.1	Storage tanks	2.22%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	330.2	Pressure tanks	5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	331	Trans. And Dist. Mains	2.00%	-	-	-	-	-	2,000,001	50,000	2,000,001	50,000	1,950,001	-	100,000	2,000,001	150,000	1,850,001
20	333	Services	3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	334	Meters	8.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	335	Hydrants	2.00%	-	-	-	-	-	77,000	2,568	77,000	2,568	74,432	-	5,136	77,000	7,704	69,296
23	336	Backflow Prevention Devices	6.67%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	339	Other Plant and Misc. Equip.	6.67%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	340	Office Furniture and Fixtures	6.67%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	340.1	Computers and Software	20.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	341	Transportation Equipment	20.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	341.1	Transportation Equipment - Golf Carts	7.83%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	342	Stores Equipment	4.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	343	Tools and Work Equipment	5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	344	Laboratory Equipment	10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	345	Power Operated Equipment	5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	346	Communications Equipment	10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	347	Misc. Equipment	10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	347.1	Misc. Equipment - CNG	3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	348	Other Tangible Plant	10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Totals				-	-	-	-	-	2,077,001	52,568	2,077,001	52,568	2,024,433	-	105,136	2,077,001	157,704	1,919,297

			2020					2021					2022					
Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	Plant Additions	Depreciation	Plant Balance	A/D Balance	Net Plant	Plant Additions	Depreciation	Plant Balance	A/D Balance	Net Plant	Plant Additions	Depreciation	Plant Balance	A/D Balance	Net Plant
Wastewater																		
37	351	Organization Cost	0.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	352	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	353	Land and Land Rights	0.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	354	Structures & Improvements	3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	355	Power Generating Equipment	5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	360	Collection Sewers - Force	2.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	361	Collection Sewers - Gravity	2.00%	-	-	-	-	-	553,601	-	553,601	-	553,601	-	-	553,601	-	553,601
44	362	Special Collecting Structures	2.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	363	Services to Customers	2.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	364	Flow Measuring Devices	10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	365	Flow Measuring Installations	10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	366	Reuse Services	2.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	367	Reuse Meters and Meter Installations	8.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	370	Receiving Wells	3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	371	Pumping Equipment	12.50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	374	Reuse Distribution Reservoirs	2.50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	375	Reuse Transmission and Dist. Sys.	2.50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	380	Treatment and Disposal Equipment	5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	381	Plant Sewers	5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	382	Outfall Sewer Lines	3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	389	Other Plant and Misc. Equipment	6.67%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	390	Office Furniture & Equipment	6.67%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	390.1	Computers & Software	20.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	391	Transportation Equipment	20.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	392	Stores Equipment	4.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	393	Tools, Shop & Garage Equipment	5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	394	Laboratory Equipment	10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	395	Power Operated Equipment	5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	396	Communications Equipment	10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	397	Miscellaneous Equipment	10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	398	Other Tangible Plant	10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wastewater Totals				-	-	-	-	-	553,601	-	553,601	-	553,601	-	-	553,601	-	553,601
GRAND TOTAL				-	-	-	-	-	2,630,602	52,568	2,630,602	52,568	2,578,034	-	105,136	2,630,602	157,704	2,472,898

		2023			2024					Year 6	Year 7	Year 8
	Plant Additions	Depreciation	Plant Balance	A/D Balance	Net Plant	Plant Additions	Depreciation	Plant Balance	A/D Balance	Net Plant	Net Plant	Net Plant
<u>Wastewater</u>	-	-	-	-	-	-	-	-	-	-	-	-
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-	-	553,601	-	553,601	-	-	-	553,601	-	553,601	-	-
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-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	553,601	-	553,601	-	-	553,601	-	553,601	-	-	-
-	105,136	2,630,602	262,840	2,367,762	-	105,136	2,630,602	367,976	2,262,626	1,603,889	1,498,753	1,393,617

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EXHIBIT 9

WRITTEN REQUEST FOR SERVICE

Cowley Companies

1242 East Jackson Street
Phoenix, AZ 85034
Phone: 602.385.4200
Fax: 602.385.4210

May 14, 2020

Ms. Erin Hubbard
Liberty Utilities
12725 W. Indian School Road, Suite D101
Avondale, AZ 85392

Re: Request for Water and Sewer Service for the Falcon Golf Club Estates Development
Camelback Road & 152nd Avenue
APNs 501-61-006B and 501-61-006C

Dear Ms. Hubbard:

This letter serves as an official written request for **water** and **sewer** service for the proposed **Falcon Golf Club Estates** development. The proposed development covers Assessor Parcel Numbers (APNs) 501-61-006B and 501-61-006C, and is located along the north side of Camelback Road near 152nd Avenue. Once developed, the site will consist of four industrial parcels.

SCM Clearwater LLLP/ETAL is the project and property owner and developer, and HILGARTWILSON, LLC is the civil engineering firm for the project. The developer and engineer can be reached at the addresses shown below.

SCM Clearwater LLLP/ETAL
c/o Michael T. Cowley
Cowley Management LLC
1242 East Jackson Street
Phoenix, Arizona 85034
602.385.4200

HILGARTWILSON, LLC
c/o Mark K. Ipson
2141 E. Highland Avenue, Suite 250
Phoenix, AZ 85016
602.490.0535

The Falcon Golf Club Estates development is estimated to start construction in mid-2020 and to be completed in mid-2021. The estimated average daily water demand for the project is 261,768 gallons per day (gpd) and the project is estimated to generate an average daily wastewater flow of 231,000 gpd.

If you have any questions or require additional information, please do not hesitate to call.

Respectfully submitted,



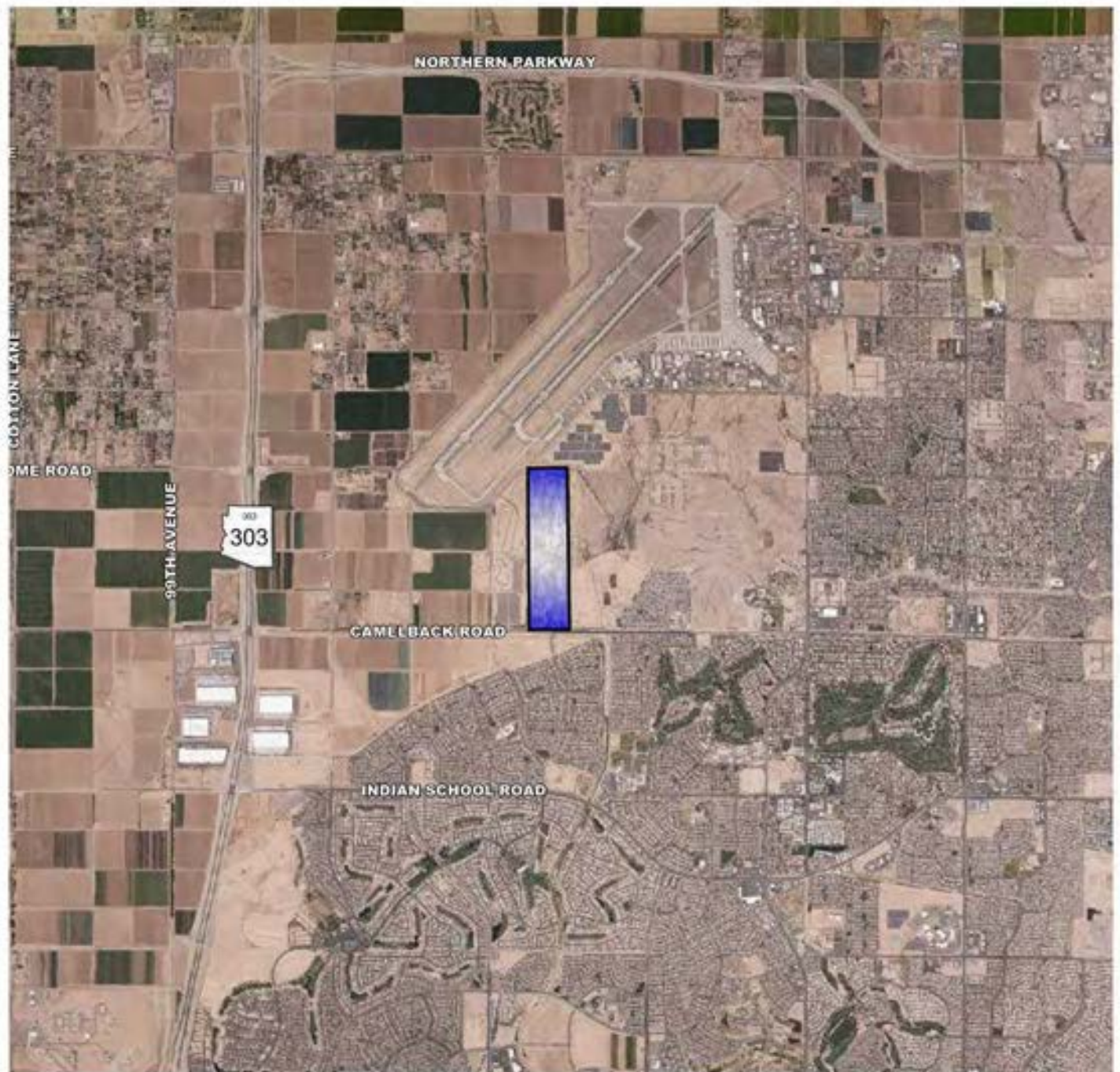
Michael T. Cowley
President
Cowley Management LLC



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EXHIBIT 10

**MAPS OF EXISTING SERVICE AREA
AND EXTENSION AREA**



LEGEND

PROJECT LOCATION



ASSESSOR PARCEL INFORMATION

APN: 501-61-006C
OWNER: SCM CLEARWATER LLLP/ETAL
OWNES: 79.00 ACRES

APN: 501-61-006B
OWNER: SCM CLEARWATER LLLP/ETAL
AREA: 78.03 ACRES

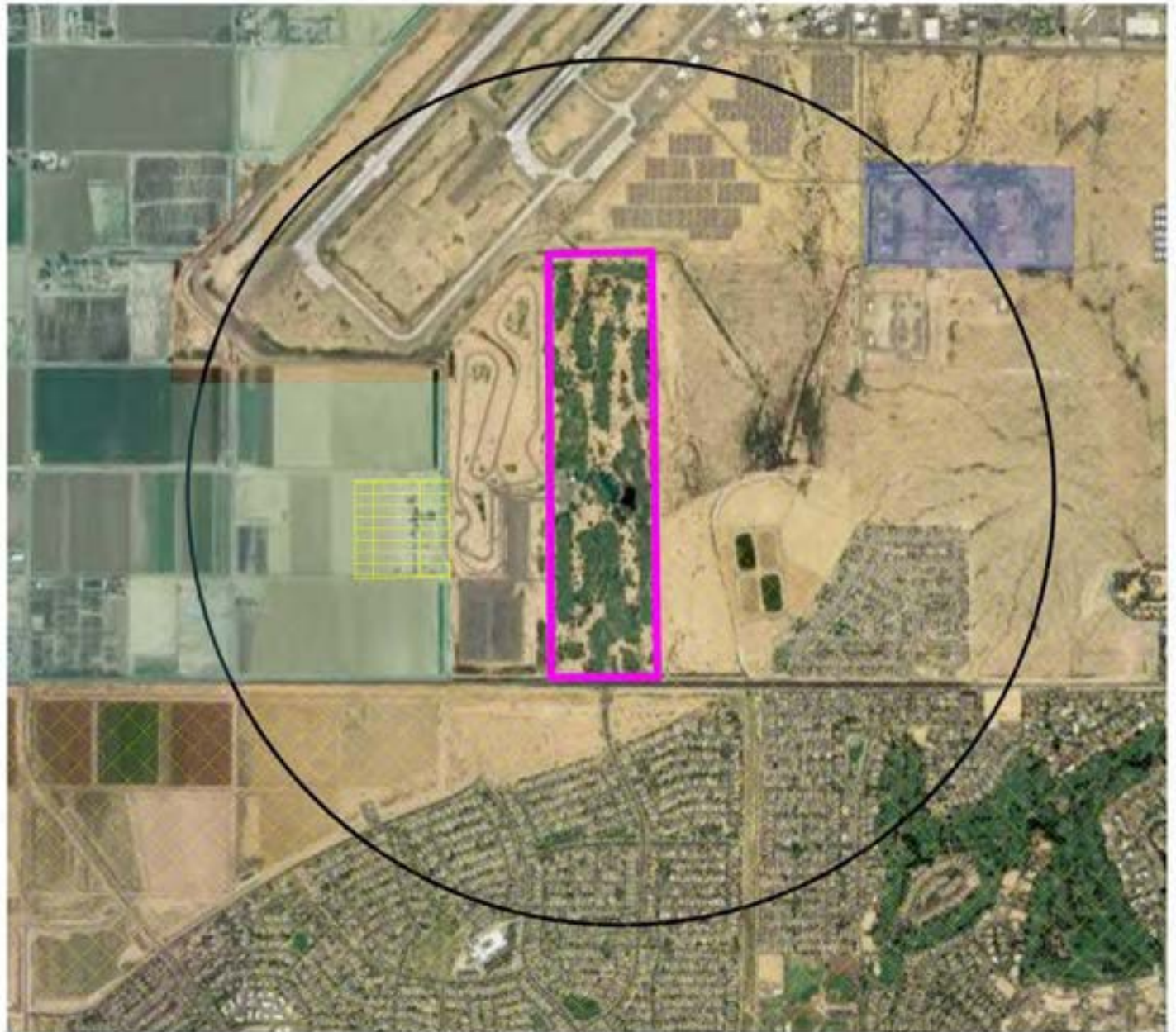


PROJ.NO.: 2018
DATE: AUG 2019
SCALE: 1" = 5000'
DRAWN BY: MM
CHECKED BY: DJ

FALCON GOLF
152ND AVE & CAMELBACK RD
MARICOPA COUNTY, AZ

FIG. 1 VICINTIY MAP

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436



LEGEND

CC&N EXPANSION AREA (FALCON GOLF)



VALLEY UTILITIES WATER COMPANY



LITCHFIELD PARK SERVICE COMPANY (LIBERTY UTILITIES)



ADAMAN MUTUAL WATER COMPANY



EPCOR WATER (SEWER ONLY)



2000 1000 0 2000



SCALE

FEET



PROJ.NO.: 2018

DATE: AUG 2019

SCALE: 1" = 2000'

DRAWN BY: MM

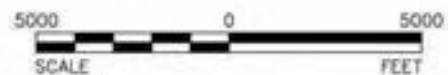
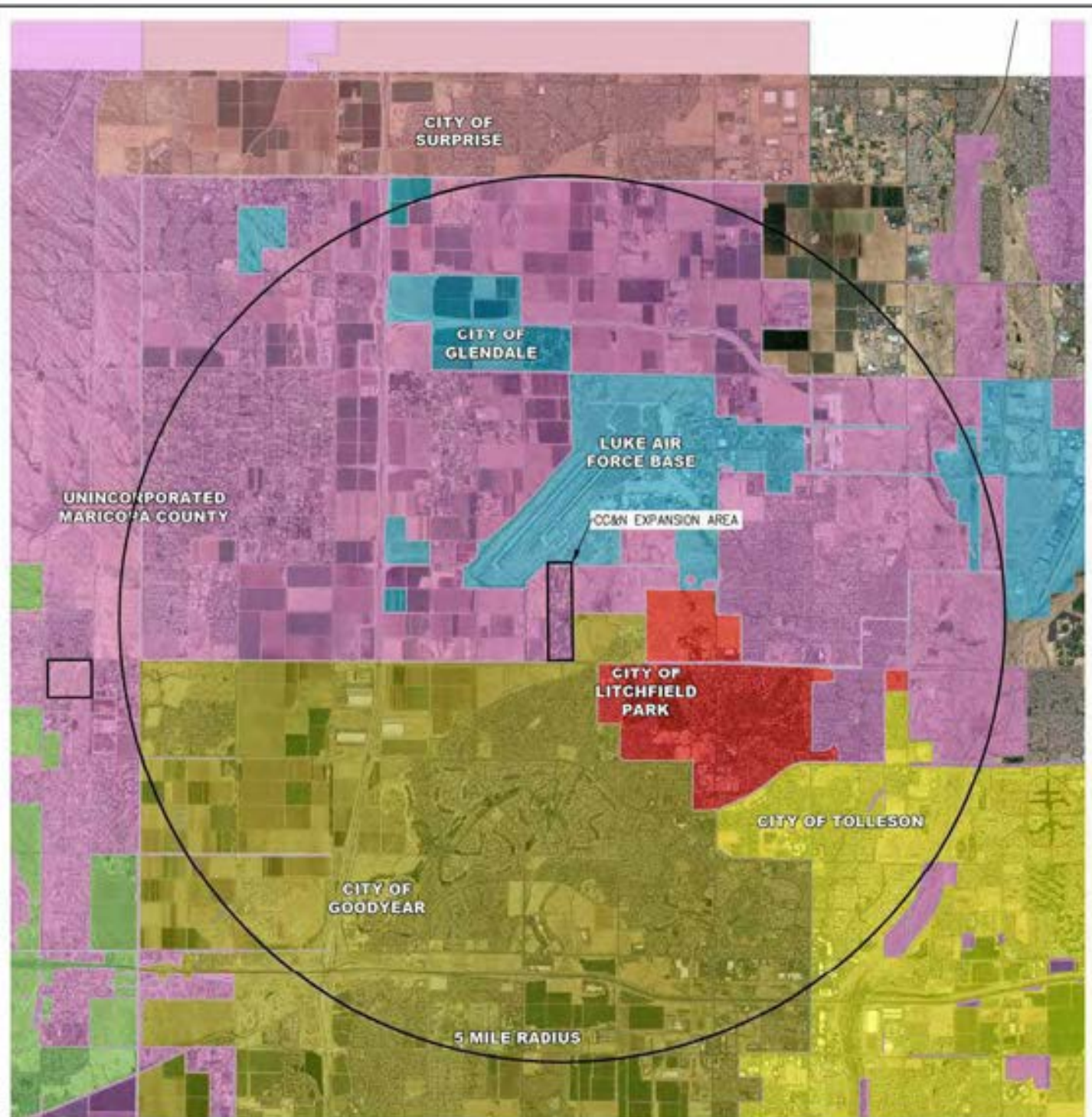
CHECKED BY: DJ

FALCON GOLF

152ND AVENUE AND CAMELBACK ROAD
MARICOPA COUNTY, ARIZONA

FIG. 2: WATER & SEWER SERVICE VICINITY MAP

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436



PROJ.NO.:	2018
DATE:	AUG 2019
SCALE:	1" = 8000'
DRAWN BY:	MM
CHECKED BY:	DJ

FALCON GOLF
152ND AVENUE AND CAMELBACK ROAD
MARICOPA COUNTY, ARIZONA

FIG. 3: MUNICIPALITY VICINITY MAP

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436



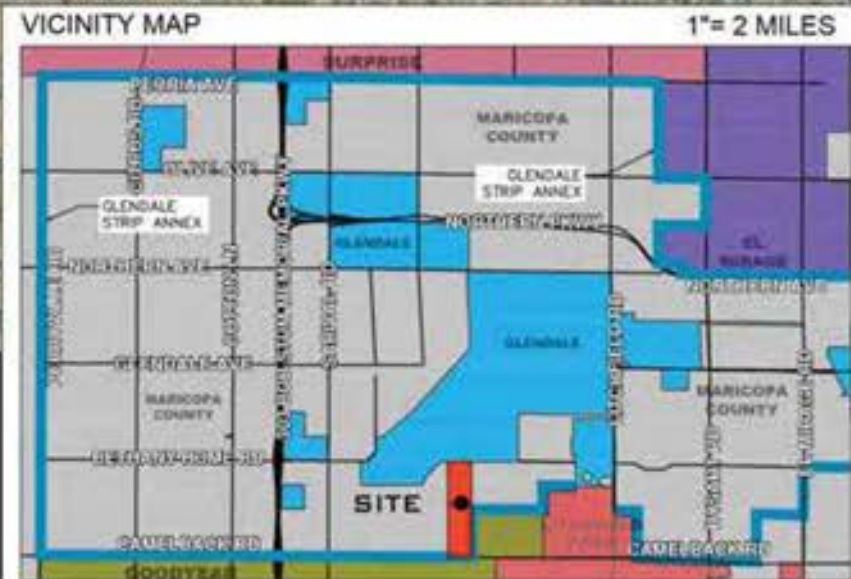
FALCON GOLF COURSE	SITE DATA CHART	
	Parcel	Area (Ac.) (Gross)
	A	38.8
	B	38.3
	C	38.2
	D	38.7
	LS/Retention	3.4
	TOTAL PROJECT	157.4

*Project Area excludes Camelback ROW (65')

152ND AVE

LEGEND

- PROJECT BOUNDARY
- FULL MOVEMENT ACCESS
- LIMITED MOVEMENT ACCESS





LEGEND

FALCON GOLF BOUNDARY



EXISTING WATER LINE



PROPOSED WATER LINE



JUNCTION



RESERVOIR



PUMP



PIPE DIAMETER LEGEND

	12.0 INCHES
	16.0 INCHES
	24.0 INCHES

NOTE

EXISTING TRANSMISSION WATER LINES WITHIN CAMELBACK ROAD AND PERRYVILLE ROAD ARE NOT SHOWN FOR CLARITY.

FALCON GOLF
152ND AVENUE AND CAMELBACK ROAD
MARICOPA COUNTY, ARIZONA

FIG 5 WATER SYSTEM IMPROVEMENTS

PROJ. NO.: 2018

DATE: OCT 2019

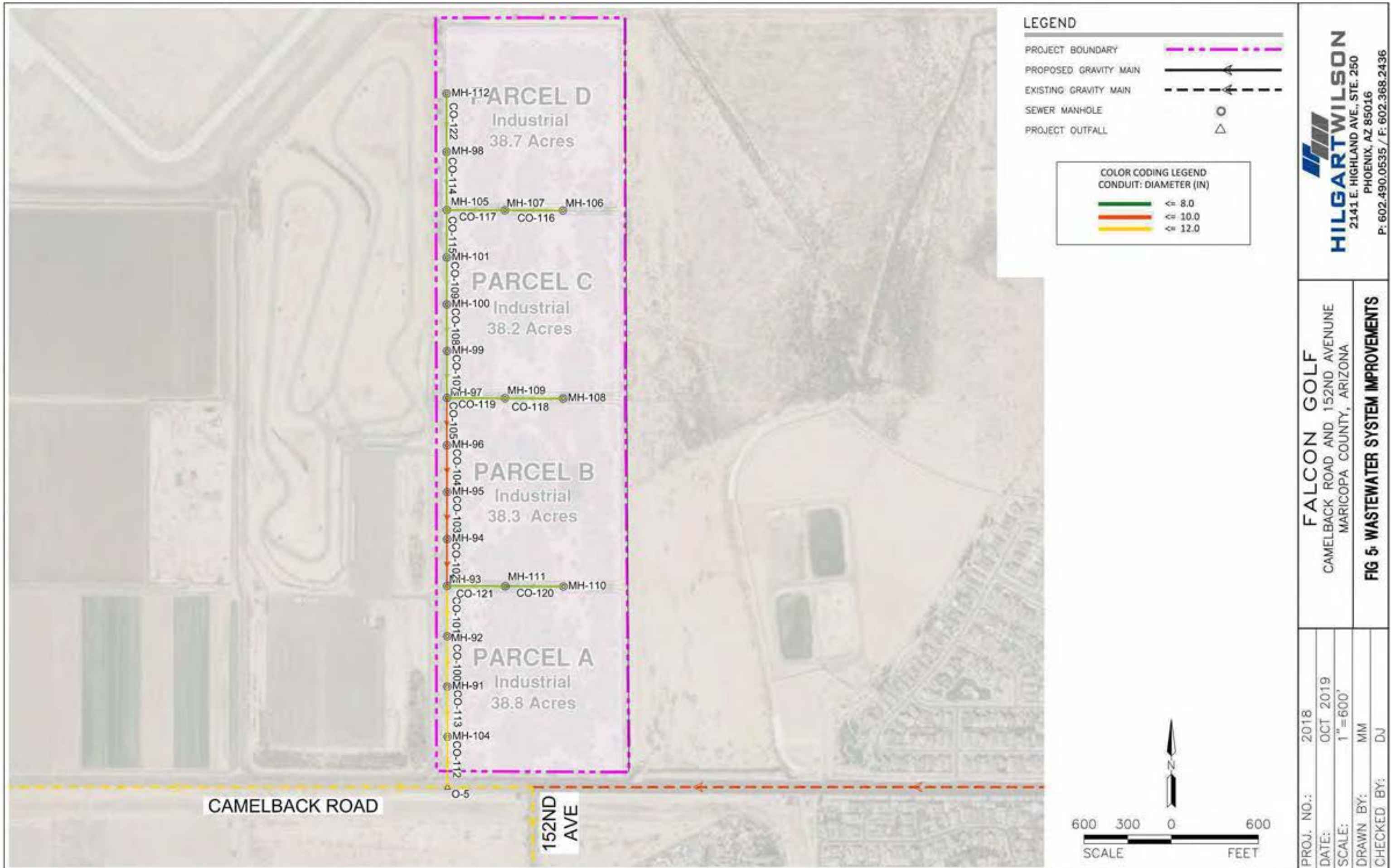
SCALE: 1"=800'

DRAWN BY: MM

CHECKED BY: DJ

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016

P: 602.490.0535 / F: 602.368.2436



LEGEND

PROJECT BOUNDARY	
PROPOSED GRAVITY MAIN	
EXISTING GRAVITY MAIN	
SEWER MANHOLE	
PROJECT OUTFALL	

COLOR CODING LEGEND CONDUIT: DIAMETER (IN)

	<= 8.0
	<= 10.0
	<= 12.0

FALCON GOLF
CAMELBACK ROAD AND 152ND AVENUE
MARICOPA COUNTY, ARIZONA

FIG 5: WASTEWATER SYSTEM IMPROVEMENTS

PROJ. NO.:	2018
DATE:	OCT 2019
SCALE:	1"=600'
DRAWN BY:	MM
CHECKED BY:	DJ

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436

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EXHIBIT 11

**FORM OF NOTICE TO BE SENT TO MUNICIPALITIES
WITHIN 5 MILES OF EXTENSION AREA**



Notice Required Pursuant to R14-2-402.B.4 and R14-2-602.B.4
Request for Extension of Certificates of Convenience and Necessity
Filed by Liberty Utilities (Litchfield Park Water & Sewer) Corp.

Pursuant to A.A.C. R14-2-402.B.4 and R14-2-602.B.4, Liberty Utilities (Litchfield Park Water & Sewer) Corp. ("Liberty Litchfield Park") is providing this notice that Liberty Litchfield Park has made application to the Arizona Corporation Commission ("ACC") to extend its Certificates of Convenience and Necessity ("CC&Ns") to provide water and wastewater utility service to the Extension Area set forth below. The requested Extension Area is within five miles of your municipality's corporate limits. The specific notice requirements are as follows:

Applicant Name, Mailing Address and Telephone Number

Liberty Utilities (Litchfield Park Water & Sewer) Corp.
12725 W. Indian School Road, Suite D-101
Avondale, AZ 85392
623-935-9367

Date Applications Were Filed

Applications for an extension of the CC&Ns were filed on May 15, 2020

Type of Service to be Provided

Water and Wastewater Services

A Description of Requested Extension Area

Falcon Golf is currently a 157 acre golf course with club house and maintenance area. The site is made up of two parcels located at Camelback and 152nd Ave in Maricopa County, Arizona (unincorporated). The Property lies within Section 17, Township 2 North, Range 1 West of the Gila & Salt River Baseline and Meridian in Maricopa County.

ACC Docket Numbers

ACC Docket Nos. W-01427A-20-XXXX and SW-01428A-20-XXXX

Instructions on How to Obtain a Copy of Applications

The applications are available for inspection through the ACC website (www.azcc.gov) using the e-Docket function, and from Liberty Utilities via its website, www.libertyutilities.com.

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EXHIBIT 12

ESTIMATED NUMBER OF CUSTOMERS –

FIRST FIVE YEARS

Falcon Golf Club Estates
(Litchfield Park) Water and Sewer CC&N
5 Year Customer Growth

Customer Additions:	2021	2022	2023	2024	2025
Residential	0	0	0	0	0
Commercial	0	0	0	0	0
Industrial	4	0	0	0	0

Cumulative Customers:	2021	2022	2023	2024	2025
Residential	0	0	0	0	0
Commercial	0	0	0	0	0
Industrial	4	4	4	4	4

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EXHIBIT 13

ADEQ AQUIFER PROTECTION PERMIT

AQUIFER PROTECTION PERMIT NO. P-100310
PLACE ID 815-LTF 61193
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, Liberty Utilities (Litchfield Park Water & Sewer) Corp. is hereby authorized to operate Palm Valley Water Reclamation Facility & Liberty Aquifer Replenishment Facility, located in Goodyear, Arizona, in Maricopa County, over groundwater of the Phoenix Active Management Area, in Township 2 N, Range 1 W, Section 33, SE 1/4, SW 1/4, SW 1/4 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: Palm Valley Water Reclamation Facility
Facility Address: 14222 West McDowell Road
Goodyear, Arizona 85395
County: Maricopa
Permittee: Liberty Utilities (Litchfield Park Water & Sewer) Corp.
Permittee Address: 12725 W Indian School Rd, Suite D101
Avondale, Arizona 85392

Permitted Flow Rate: 6,550,000 gallons per day (gpd)

Facility Contact: Clint Arndt
Emergency Phone No.: (623) 293-3056

Latitude/Longitude: 33° 27' 55" N / 112° 21' 55" W
Legal Description: Township 2 N, Range 1 W, Section 33, SE 1/4, SW 1/4, SW 1/4 of the Gila and Salt River Baseline and Meridian

1.2 Authorizing Signature


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

Signed this 29 day of January, 2016

THIS AMENDED PERMIT SUPERSEDES 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)]**

Liberty Utilities (Litchfield Park Water & Sewer) Corp. is authorized to operate the 6.55 million gallons per day (mgd) Palm Valley Water Reclamation Facility (WRF). The facility includes the Palm Valley WRF and the Liberty Aquifer Replenishment Facility (LARF).

Palm Valley WRF

Liberty Utilities (Litchfield Park Water & Sewer) Corp. is authorized to operate the 6.55 million gallons per day (mgd), Palm Valley Water Reclamation Facility (WRF). The treatment process consists of an influent pump station with four (4) pumps, three (3) influent screens, two (2) vortex grit removal units, one (1) influent equalization basin, three (3) SBR fill pumps, four (4) SBR basins, two (2) surge tanks, three (3) filter feed pumps, five (5) cloth media disc filters, four (4) effluent discharge pumps, three (3) UV disinfection units, four (4) sludge holding tanks and two (2) centrifuges for sludge dewatering (one new and one existing). The existing SBR basin #3A will be converted to a sludge holding tank and SBR basin #3B will be converted to a surge tank. One of the existing centrifuges will be replaced with a new centrifuge. The WRF is designed and constructed according to plans approved by ADEQ. The WRF is designed to produce Reclaimed Water Reuse Class A+ effluent.

The effluent from the WRF may be discharged to the LARF located three miles north of the WRF, the Roosevelt Irrigation District (RID) canal under a valid AZPDES permit (AZ0025712), and/or reused for any allowable use under a valid reclaimed water permit (R-100310). An interconnection between the Palm Valley WRF reclaimed water distribution system and the City of Goodyear 157th Avenue WRF reclaimed water distribution system allows reclaimed water to flow either way between the systems. Discharges to the RID canal are exempt from APP requirements pursuant to A.R.S. § 49-250(B)(6) and (16).

All the sludge, including screenings, grit, and scum, shall be hauled to landfill for disposal in accordance with State and Federal regulations.

Liberty Aquifer Replenishment Facility (LARF)

The LARF is located near the intersection of Camelback Road and Bullard Avenue, in Township 2 North, Range 1 West, in the southeast quarter of Section 17. The property is 56.77 acres in size. The facility shall receive effluent from the Palm Valley WRF through the existing reclaimed water pipeline. The LARF facility shall also include flowmeters, pipeline distribution system and controls, and associated groundwater compliance monitoring points required by the Underground Storage Facility (USF) and APP permits.

The LARF shall be constructed as designed in two phases. Phase I shall be located on 9.04 acres (basin floor area) consisting of four recharge basins which have a designed recharge capacity of 4.5mgd (5,000 acre feet per year (AFY)). Phase II shall be located on a maximum of 12.78 acres (basin floor area) consisting of up to three recharge basins which shall increase the total recharge capacity by 0.9mgd (1,000 AFY) to meet the total maximum of 5.4 mgd (6,000 AFY) once fully constructed.

This permit amendment is to add the LARF to the Palm Valley Water Reclamation Facility (WRF).

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
Palm Valley Water Reclamation Facility	33° 27' 55" North	112° 21' 55" West
Center of the LARF (Phase I)	33° 30' 45" North	112° 22' 43" West
Recharge Basin No. 1 (2.26 acres)	33° 30' 41" North	112° 22' 44" West
Recharge Basin No. 2 (2.26 acres)	33° 30' 40" North	112° 22' 47" West
Recharge Basin No. 3 (2.26 acres)	33° 30' 46" North	112° 22' 48" West
Recharge Basin No. 4 (2.26 acres)	33° 30' 46" North	112° 22' 45" West

Center of the LARF- future (Phase II)		
Recharge Basin No. 5 (4.72 acres)	33° 30' 49" North	112° 22' 38" West
Recharge Basin No. 6 (4.59 acres)	33° 30' 46" North	112° 22' 39" West
Recharge Basin No. 6 (3.47 acres)	33° 30' 42" North	112° 22' 40" West

Annual Registration Fee [ARS § 49-242(D) 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 6.55 mgd. If the facility is not yet constructed or is incapable of discharge at this time, the permittee may be eligible for reduced fees under the 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 the rule.

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(C)(5). The permittee shall maintain financial capability throughout the life of the facility. Liberty Utilities Corp. submitted a Letter of Credit in the amount of \$998,525.00 to ADEQ as a financial assurance mechanism.

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

The WRF and the LARF shall be designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities as specified in A.A.C. R18-9-B204. The facility shall meet the performance requirement for industrial pre-treatment as per A.A.C. R18-9-B204(B)(6)(b).

2.2.1 Engineering Design

This expansion of the WRF was designed and shall be constructed as per the design report stamped, dated, and signed (sealed) on November 2014, Tim Leclair, P.E., Amec Environmental & Infrastructure, Inc., and subsequent sealed submittals that served as additions to the design report. The new LARF was designed and shall be constructed as per the design report and plans, stamped, dated, and signed (sealed) on October 10, 2014, and the updated design plans, stamped, dated, and signed (sealed) on July 14, 2015 by Thomas Anthony Martinez, P.E., Westland Resources Inc.

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 and well completion reports in a format approved by the Department per Compliance Schedule in Section 3.1, 3.3, 3.4, 3.5 and 3.6. The Certificate shall be submitted to the Water Permits Section, and a copy shall be sent to the Water Quality Compliance Section.

If the AQL or AL is exceeded during pre-recharge groundwater sampling occurring prior to start-up, the permittee will be in violation of their permit. Since permittee has not commenced recharge activities, the permittee shall follow their recommended contingency plan action of conducting six additional monitoring rounds and submitting an Other Amendment to modify the AQL for the specified constituent(s) that exceeded the AL or violated the AQL.

2.2.4 Operational Requirements

1. The permittee shall maintain a copy of the up-to-date operations and maintenance manual at the WRF and LARF sites at all times; 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 materials used shall be documented in the facility log book as per Section 2.7.2 and reported to ADEQ in the event of a violation or exceedance as per 2.7.3.

If damage is identified during an inspection that could cause or contribute to a discharge, proper repairs shall be promptly performed.

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 A+ 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)(R-100310).

2.2.6 Certified Area-wide Water Quality Management Plan Conformance

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

Facility operations must conform to the approved Certified Area-wide 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 WRF with a maximum average monthly flow of 6.55mgd and the Phase I LARF with a maximum average annual flow of 4.5 mgd (for a total of 5,000 AFY).
2. The permittee shall notify all users that the materials authorized to be disposed of through the WRF 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-1 or IA-2.

2.4 Point(s) of Compliance [A.R.S. § 49-244]

The POCs are established at the following designated locations:

For Palm Valley WRF:

POC#	POC Locations	Latitude	Longitude
1	Theoretical POC located at the northwest corner of the WRF	33° 27' 57" North	112° 21' 51" West
2	Theoretical POC located at the southeast corner of the WRF	33° 27' 53" North	112° 21' 50" West

Groundwater monitoring is not required at the theoretical points of compliance, except as a contingency action.

For the LARF:

POC#	POC Location	Latitude	Longitude
3	MW-1 (up-gradient), to be located near the southern boundary of the LARF site	33° 30' 36" North	112° 22' 44" West
4	MW-2 (down-gradient), to be located at the northern boundary of the LARF site	33° 30' 55" North	112° 22' 44" West

Groundwater monitoring is required at the point of compliance wells #3 and #4 under this permit for the LARF.

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

The Director may amend this permit to require the installation of a well and the 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.

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

Unless otherwise specified in this permit, all monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. Monitoring shall commence the first full monitoring period following permit issuance. 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. 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 Discharge Monitoring

The permittee shall monitor the effluent on a routine basis according to Section 4.2, Table IA-1 or IA-2, as applicable. Representative samples of the effluent shall be collected downstream of the UV disinfection channel.

2.5.2 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, Tables IA-1 or IA-2. Representative samples of the reclaimed water shall be collected downstream of the UV disinfection channel.

2.5.3 Facility / Operational Monitoring

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

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 in the facility log book as per Section 2.7.2 and reported to ADEQ in case of a violation or exceedance as per 2.7.3.

2.5.4 Groundwater Monitoring and Sampling Protocols

The permittee shall monitor the groundwater according to Section 4.2, Tables II-1 and II-2.

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, and conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80 percent (%) of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as "dry" for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the SMRF.

The permittee may conduct the sampling using the low-flow purging method as described in the Arizona Water Resources Research Center, March 1995 *Field Manual for Water Quality Sampling*. The well must be purged until indicator parameters stabilize. Indicator parameters shall include dissolved oxygen, turbidity, pH, temperature, and conductivity.

2.5.4.1 POC Well Replacement

In the event that one or more of the designated POC wells should become unusable or inaccessible due to damage, exceedance of an alert level (AL) for water level as required by Section 2.6.2.3.4(3), or any other event, a replacement POC well shall be constructed and installed upon approval by ADEQ. If the replacement well is fifty feet or less from the original well, the ALs and/or aquifer quality limits (AQLs) calculated for the designated POC well shall apply to the replacement well.

2.5.5 Surface Water Monitoring and Sampling Protocols

Surface water monitoring is not required under the terms of this permit. Discharges to the RID canal are exempt from APP requirements pursuant to A.R.S. § 49-250(B)(6) and (16).

2.5.6 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. If all methods have detection limits higher than the applicable limit, the permittee shall follow the contingency requirements of Section 2.6 and may propose "other actions" including amending the permit to set higher limits. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification unless exempted under A.R.S. § 36-495.02. 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, AZ 85007
Phone: (602) 364-0720

2.5.7 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 Water Permits Section for approval prior to installation and the permit shall be amended to include any new 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 for both facilities submitted in their respective applications shall be maintained at the location where day-to-day decisions regarding the operation of the facilities are made. The permittee shall be aware of and follow the contingency and emergency plan.

Any AL that is exceeded or any violation of an AQL discharge limit (DL), 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

2.6.2.1 Exceeding of Alert Levels and Performance Levels

1. If the operational performance level 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 a performance level exceedance. 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 Set for Discharge Monitoring

1. If an AL set in Section 4.2, Tables IA-1 or IA-2 has been exceeded; the permittee shall immediately investigate to determine the cause of the AL exceedance.

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 AL exceedance;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
 - c. Sampling of individual waste streams composing the wastewater for the parameters being exceeded.
2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 8.5 of the APP application dated November 3, 2014, 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, along with a summary of the findings of the investigation, the cause of the AL 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 Alert Level (AL) for average monthly flow in Section 4.2, Tables IA-1 or IA-2, 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.

2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1 Alert Levels for Indicator Parameters

Not required

2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

1. If an AL for a pollutant set in Section 4.2, Tables II-1 and II-2 has been exceeded, the permittee may conduct verification sampling within five days of becoming aware of the exceedance. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.

2. If verification sampling confirms the AL exceedance or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring as follows:

Specified Monitoring Frequency (Section 4.2, Tables II-1 or II-2)	Monitoring Frequency for AL Exceedance
Daily	Daily
Monthly	Weekly
Quarterly	Monthly
Semi-annually	Quarterly
Annually	Quarterly

In addition, the permittee shall immediately initiate an investigation of the cause of the AL exceedance, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.

3. The permittee shall initiate actions identified in the approved contingency plan referenced in in Section 8.5 of the APP application dated November 3, 2014, and specific contingency measures identified in Part 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. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Water Permits Section, that although an AL is exceeded, pollutants are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency for approval in writing by the Water Permits Section.
4. Within 30 days after confirmation of an AL exceedance, the permittee shall submit the laboratory results to the Water Quality Compliance Section along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.
5. 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.
6. The increased monitoring required as a result of an AL exceedance may be reduced to the monitoring frequency in Section 4.2, Tables II-1 and II-2 if the results of four sequential sampling events demonstrate that no parameters exceed the AL.
7. If the increased monitoring required as a result of an AL exceedance continues for more than six sequential sampling events, the permittee shall submit a second report documenting an investigation of the continued AL exceedance within 30 days of the receipt of laboratory results of the sixth sampling event.
8. During the first twelve (12) months of recharge operation, if an AL has been exceeded for nitrate species or E.coli, the maximum sampling frequency shall be monthly. If results of the monthly sampling indicate that concentrations are decreasing but still exceed the AL, the monthly sampling frequency will be maintained. If concentrations have not decreased below the AL after 12 consecutive monthly samples the permittee shall initiate actions identified in the approved contingency plan referenced in Section 8.5 of the APP application dated November 3, 2014.

2.6.2.3.3 Alert Levels to Protect Downgradient Users from Pollutants Without Numeric Aquifer Water Quality Standards

Not required at time of issuance.

2.6.2.3.4 Alert Level for Groundwater Level

1. If the groundwater level is not within the allowable range established by the Alert Level in Section 4.2, Table II-1 and II-2, the permittee shall submit a written report within 30 days after becoming aware of the exceedance. The report shall document the following:
 - a. the as-built configuration of the well including the screened interval;
 - b. all groundwater level measurements available for the well;
 - c. a discussion and analysis of any trends or seasonal variations in the groundwater level measurements;
 - d. information on groundwater recharge, withdrawal or other hydrologic conditions in the vicinity of the well; and
 - e. and any other pertinent information obtained by the permittee.
2. If the groundwater level is not within the allowable range established by the Alert Level in Section 4.2, Table II-1 and II-2 for more than four sequential sampling events, the permittee shall submit a second report that evaluates the cause(s) of the exceedance and recommends whether the well should be replaced pursuant to Section 2.5.4.1. The report shall discuss and demonstrate whether samples representative of the water quality of the relevant aquifer can be practicably obtained from the well.
3. Upon review of the submitted report, the Department may amend the permit to require replacement of the well, require additional permit conditions or other actions.

2.6.3 Discharge Limitations Violations

1. If a DL set in Section 4.2, Table IA-1, IA-2 or IB, has been violated, 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 violation;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
 - 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, as necessary to identify the cause of the violation.

The permittee 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, notification of downstream or downgradient users who may be directly affected by the discharge, 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

1. If an AQL set in Section 4.2 Tables II-I and II-II has been exceeded, the permittee may conduct verification sampling within 5 days of becoming aware of an AQL exceedance. The permittee may use the results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms that the AQL is violated for any parameter or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring to Weekly, Monthly and Quarterly. In addition, the permittee shall immediately initiate an evaluation for the cause of the violation, including inspection of all discharging units and all related pollution control devices, and review of any operational and maintenance practices that might have resulted in unexpected discharge.

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. A verified exceedance of an AQL will be considered a violation unless the permittee demonstrates within 90 days or a longer time period if agreed to by ADEQ that the exceedance was not caused or contributed to by pollutants discharged from the facility. Unless the permittee has demonstrated that the exceedance was not caused or contributed to by pollutants discharged from the facility, 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.

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

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 That Are Not Addressed Elsewhere in Section 2.6

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 upon discovering the discharge of hazardous material which (a) has the potential to cause an AWQS or AQL to be exceeded, 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 within 24 hours upon discovering the discharge of non-hazardous material which (a) has the potential to cause an AQL to be exceeded, 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 ADEQ Water Quality Compliance Section 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 that 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 and actions identified in the approved contingency plan referenced in Section 5.0 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 Water Permits Section prior to implementing a corrective action to accomplish any of the following goals in response to exceeding 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; and/or
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 including contact information for the person completing the Form. Submit the completed Form to the Water Quality Compliance Data and Enforcement 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 Form and include an explanation, and submit the Form to the Water Quality Compliance Data and Enforcement Unit.
3. The following tables contained in Section 4.0 list the parameters to be monitored and the frequency for reporting results on the SMRFs.
 - Table IA-I, Routine Discharge Monitoring – 5.1 mgd facility
 - Table IA-2, Routine Discharge Monitoring – 6.55 mgd facility
 - Table IB, Reclaimed Water Monitoring – Class A+
 - Table II-1, Groundwater Monitoring for MW-1
 - Table II-2, Groundwater Monitoring for MW-2
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.
 - Table III - Facility Inspection (Operational Monitoring)- Logbook

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;
6. Any other information required by this permit to be entered in the log book; and
7. Monitoring records for each measurement shall comply with R18-9 A206(B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Inspections and Compliance Unit in writing within 5 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 its 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 record the information as required in Table III in the facility log book as per Section 2.7.2, and report to ADEQ any violations or exceedances as per Section 2.7.3.

The permittee shall submit the reclaimed water monitoring results 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.

2.7.4.1 Annual Monitoring and Compliance Report (Annual Report)

Each year the permittee shall submit an Annual Report to ADEQ summarizing the results of the Facility's performance monitoring for the calendar year. The Annual Reports shall be submitted to ADEQ in accordance with the Compliance Schedule in Section 3.0. The Annual Report shall describe, if any, corrective actions performed in accordance with this permit and will conduct a literature search on whether earth fissures have been confirmed near the LARF.

2.7.4.2 Well Installation Reports

A well installation report shall be submitted to ADEQ within ninety (90) days after the completion of new well installations in accordance with Section 2.5.4.1 and the Compliance Schedule in Section 3.0. Each well installation report shall be completed in accordance with A.A.C. R12-15-801 et seq. and consist of the following

- Copies of Arizona Dept. of Water Resources (ADWR) Notice of Intent and all related submittals to ADWR;
- Boring log and well as-built diagram;
- Total depth of well measured after installation;
- Top of well casing or sounding tube (whichever is used as the fixed reference measuring point) and ground surface elevation;
- Depth to groundwater;
- Geophysical logging reports and subsurface sampling results, if any;
- Description of well drilling method;
- Description of well development method;
- If dedicated sampling equipment installed, details on the equipment and at what depth the equipment was installed;
- Summary of analytical results for initial groundwater sample collected after installation;
- Corresponding analytical data sheets; and
- GPS coordinates for each new well.

2.7.4.3 Well Abandonment Reports

If monitor wells associated with this permit are abandoned due to poor performance, casing collapse, or other reasons, then within 90 days of completing abandonment, the permittee shall submit a well abandonment report to ADEQ. Each well abandonment report shall be completed in accordance with A.A.C. R12-15-801 et seq. and consist of the following:

1. Copy of ADWR Notice of Intent to Abandon;
2. Copy of ADWR Abandonment Report;
3. A description of the methods used to seal the well casing and the perforated or screened interval of the well; and,
4. GPS coordinates of the former well location.

2.7.5 Reporting Location

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality
Water Quality Compliance Data and Enforcement Unit
Mail Code: 5415B-1
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4681

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

Arizona Department of Environmental Quality
Water Quality Inspections and Compliance Unit
Mail Code: 5415B-1
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4497

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

Arizona Department of Environmental Quality
Water Permits Section
Mail Code: 5415B-3
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4428

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates:

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

2.7.7 Changes to Facility Information in Section 1.0

The Water Permits Section and Water Quality Compliance Section shall be notified within 10 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 ADEQ Water Quality Compliance Section 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's 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 permittee's 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 Water Permits 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 Water Permits 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/or
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 Water Permits Section.

In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Water Permits 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 Water Permits Section. A copy of the cover letter must also be submitted to the Water Quality Compliance Section.

CSI	Description	Due by:	Permit Amendment Required?
3.1	The permittee shall submit a signed, dated and sealed Engineer's Certificate of completion for the new and modified units of WRF.	Within 90 days of completion of the upgraded facilities and prior to utilizing the new and modified unit of the WRF	No
3.2	To receive the SMRFs (Table IA-2) to monitor the 6.55 mgd facility; the permittee shall notify the Water Quality Compliance Section, Data Unit.	Within 15 days of commencement of operation.	No
3.3	Permittee shall provide revised LARF flood map showing that the LARF is outside the flood plain, or shall provide a letter from Maricopa County Flood Control or delegated authority stating the same before putting the ponds in operation.	Within 120 days of Permit issuance.	No
3.4	Permittee shall provide as-built plans for the LARF facility	Within 90 days of completion.	No
3.5	Installation of POC wells. Wells must be installed at ADEQ approved locations, in accordance with all ADWR requirements.	Prior to 90 days before commencement of recharge.	No
3.6	Well Completion Report. Submit well completion report, in accordance with Section 2.7.4.2 with no minor amendment needed. If the POC screen intervals change due to modifications that occur during well construction, a minor amendment with no fees would be submitted with the report to modify the Tables II-1 and II-2.	Within 60 days of POC well completion	No/Yes, no fee
3.7	To receive the SMRFs (Table II-2) to monitor sampling point 3, flows to the Phase I LARF: the permittee shall notify the Water Quality Compliance Section, Data Unit.	Within 15 days of commencement of operation.	No
3.8	To receive the SMRFs (Table II-1) to monitor the Groundwater at POC, MW1; the permittee shall notify the Water Quality Compliance Section, Data Unit.	Within 15 days of commencement of operation	No
3.9	To receive the SMRFs (Table II-2) to monitor the Groundwater at POC, MW2; the permittee shall notify the Water Quality Compliance Section, Data Unit.	Within 15 days of commencement of operation.	No
3.10	Submit Annual Report in accordance with Section 2.7.4.1.	January 30 and yearly thereafter	No
3.11	The permittee shall amend this permit to install the Phase II LARF consisting of three recharge basins which shall recharge an additional 0.9mgd (1,000 AFY).	Within three months of decision to implement	Yes
3.12	The permittee shall submit updated cost estimates for facility closure and post-closure, as per A.A.C. R18-9-A201(B)(5) and A.R.S. 49-243.N.2.a., and an updated financial assurance demonstration for the updated cost estimate as per A.A.C. R18-9-A203.	Every 6 years from the date of permit signature, for the duration of the permit.	Yes

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 PRE-OPERATIONAL MONITORING (or CONSTRUCTION REQUIREMENTS)

Table I Startup - Not applicable

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

Table IA-1 - Routine Discharge Monitoring – 5.1 mgd Facility

Table IA-2 - Routine Discharge Monitoring – 6.55 mgd Facility

Table IB - Reclaimed Water Monitoring

Table II-1- Groundwater monitoring at POC MW-1

Table II-2- Groundwater monitoring at POC MW-2

Table III - Facility Inspection (Operational Monitoring) - Logbook

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA-1
ROUTINE DISCHARGE MONITORING - 5.1 MGD²

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Downstream of the UV Channel (Sampling Port- 15 feet of UV stream channel)			33° 27' 55" N	112° 21' 56" W
Parameter	AL ³	DL ⁴	Units	Sampling Frequency	Reporting Frequency
Total Flow ⁵ : Daily ⁶	Not Established ⁷	Not Established	mgd ⁸	Daily	Quarterly
Total Flow: Monthly Average ⁹	4.9	5.1	mgd	Monthly Calculation	Quarterly
Reuse Flow: Daily	Not Established	5.1	mgd	Daily	Quarterly
Reuse Flow: Monthly Average	Not Established	5.1	mgd	Monthly Calculation	Quarterly
<i>E. coli</i> : Single sample maximum	Not Established	15.0	MPN ¹⁰	Daily	Quarterly
<i>E. coli</i> : four (4) of seven (7) samples in a week ¹¹	Not Established	Absence	MPN	Weekly Calculation	Quarterly
Total Nitrogen ¹² : Five-sample rolling geometric mean	8.0	10.0	mg/l ¹³	Monthly ¹⁴	Quarterly

²Monitoring under Table IA-1 is no longer required upon commencement of monitoring under Table IA-2. The permittee shall notify the Water Quality Compliance Section, Data Unit, of the change in monitoring as per Section 3.2, Compliance Schedule.

³AL = Alert Level

⁴DL = Discharge Limit

⁵Total flow is the total of flows to on-site process use, reclaimed water, discharge to the RID canal, and the City of Goodyear 157th Avenue WRF, and flow from the City of Goodyear 157th Avenue WRF.

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

⁷Not Established = Monitoring is required but no limits are specified.

⁸mgd = million gallons per day

⁹Monthly average of daily flow values.

¹⁰MPN = Most Probable Number / 100 ml sample. For MPN, a value of <2.2 shall be considered to be non-detect/absence.

¹¹To determine the appropriate start date begin with the last date in the reporting period on the SMRF and count seven (7) days backwards. If a minimum of four (4) samples in a seven (7) day period are non-detect (for CFU, a value of <1 is considered to be non-detect), report "yes" in the appropriate date on the SMRF (indicating that the standard has been met). If a minimum of four (4) samples in a seven (7) day period have detections of *E. coli*, report "no" in the appropriate date on the SMRF (indicating that the standard has not been met). 'Yes' or 'No' should be entered for every day in the reporting period.

¹²Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

¹³mg/l = milligrams per liter

¹⁴A five-month geometric mean of the results of the five (5) most recent samples

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA-1
ROUTINE DISCHARGE MONITORING – 5.1 MGD (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	0.0048	0.006	mg/l ¹⁵	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

¹⁵mg/l = milligrams per liter

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA-1
ROUTINE DISCHARGE MONITORING - 5.1 MGD (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 ¹⁶	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
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

¹⁶mg/l = milligrams per liter

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA-1
ROUTINE DISCHARGE MONITORING – 5.1 MGD (continued)

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	Flow meter at the connection to the City of Goodyear 157 th Avenue WRF reclaimed water distribution system, located 3,000 feet west of Palm Valley WRF, at the intersection of McDowell Road and Bullard Avenue			33° 27' 51.48" N	112° 22' 31.08" W
Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Flow from the Palm Valley WRF reclaimed water distribution system to the City of Goodyear 157 th Avenue WRF reclaimed water distribution system	Not Established ¹⁷	Not Established	mgd ¹⁸	Everyday	Quarterly
Flow from the City of Goodyear 157 th Avenue WRF reclaimed water distribution system to the Palm Valley WRF reclaimed water distribution system	Not Established	Not Established	mgd	Everyday	Quarterly

¹⁷Not Established = Monitoring is required but no limits are specified.

¹⁸mgd = million gallons per day

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA-2
ROUTINE DISCHARGE MONITORING – 6.55 MGD¹⁹

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
1	Downstream of the UV Channel (Sampling Port- 15 feet of UV stream channel)			33° 27' 55" N	112° 21' 56" W
Parameter	AL ²⁰	DL ²¹	Units	Sampling Frequency	Reporting Frequency
Total Flow ²² : Daily ²³	Not Established ²⁴	Not Established	mgd ²⁵	Daily	Quarterly
Total Flow: Monthly Average ²⁶	6.2	6.55	mgd	Monthly Calculation	Quarterly
Reuse Flow: Daily	Not Established	6.55	mgd	Daily	Quarterly
Reuse Flow: Monthly Average	Not Established	6.55	mgd	Monthly Calculation	Quarterly
<i>E. coli</i> : Single sample maximum	Not Established	15.0	MPN ²⁷	Daily	Quarterly
<i>E. coli</i> : four (4) of seven (7) samples in a week ²⁸	Not Established	Absence	MPN	Weekly Calculation	Quarterly
Total Nitrogen ²⁹ : Five-sample rolling geometric mean	8.0	10.0	mg/l ³⁰	Monthly ³¹	Quarterly

¹⁹Monitoring under Table IA-1 is no longer required upon commencement of monitoring under Table IA-2. The permittee shall notify the Water Quality Compliance Section, Data Unit, of the change in monitoring as per Section 3.0, Compliance Schedule.

²⁰AL = Alert Level

²¹DL = Discharge Limit

²²Total flow is the total of flows to on-site process use, reclaimed water, discharge to the RID canal, and the City of Goodyear 157th Avenue WRF, and flow from the City of Goodyear 157th Avenue WRF.

²³Flow shall be measured using a continuous recording flow meter which totals the flow daily.

²⁴Not Established = Monitoring is required but no limits are specified.

²⁵mgd = million gallons per day

²⁶Monthly average of daily flow values.

²⁷MPN = Most Probable Number / 100 ml sample. For MPN, a value of <2.2 shall be considered to be absence.

²⁸To determine the appropriate start date begin with the last date in the reporting period on the SMRF and count seven (7) days backwards. If a minimum of four (4) samples in a seven (7) day period are non-detect (for CFU, a value of <1 is considered to be non-detect), report "yes" in the appropriate date on the SMRF (indicating that the standard has been met). If a minimum of four (4) samples in a seven (7) day period have detections of *E. coli*, report "no" in the appropriate date on the SMRF (indicating that the standard has not been met). 'Yes' or 'No' should be entered for every day in the reporting period.

²⁹Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen

³⁰mg/l = milligrams per liter

³¹A five-month geometric mean of the results of the five (5) most recent samples

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA-2
ROUTINE DISCHARGE MONITORING – 6.55 MGD (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	0.0048	0.006	mg/l ³²	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

³²mg/l = milligrams per liter

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA-2
ROUTINE DISCHARGE MONITORING – 6.55 MGD (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 ³³	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
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

³³mg/l = milligrams per liter

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA-2
ROUTINE DISCHARGE MONITORING – 6.55 MGD (continued)

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	Flow meter at the connection to the City of Goodyear 157 th Avenue WRF reclaimed water distribution system, located 3,000 feet west of Palm Valley WRF, at the intersection of McDowell Road and Bullard Avenue			33° 27' 51.48" N	112° 22' 31.08" W
Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Flow from the Palm Valley WRF reclaimed water distribution system to the City of Goodyear 157 th Avenue WRF reclaimed water distribution system	Not Established ³⁴	Not Established	mgd ³⁵	Everyday	Quarterly
Flow from the City of Goodyear 157 th Avenue WRF reclaimed water distribution system to the Palm Valley WRF reclaimed water distribution system	Not Established	Not Established	mgd	Everyday	Quarterly

³⁴ Not Established = Monitoring is required but no limits are specified.

³⁵ mgd = million gallons per day

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA-2
ROUTINE DISCHARGE MONITORING – 6.55 MGD (continued)

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
3	Flow meter (Flows to the LARF)			33° 30' 37" N	112° 22' 45" W
Parameter	AL ³⁶	DL ³⁷	Units	Sampling Frequency	Reporting Frequency
Total Flow ³⁸ ; Daily ³⁹	Not Established	4.5mgd 5,000 AFY ⁴⁰	mgd ⁴¹	Daily	Quarterly
Total Flow; Monthly Average ⁴²	Not Established	Not Established	mgd	Monthly Calculation	Quarterly

³⁶AL = Alert Level³⁷DL = Discharge Limit³⁸Total to the LARF.³⁹Flow shall be measured using a continuous recording flow meter which totals the flow daily.⁴⁰AFY= acre feet per year⁴¹mgd =million gallons per day⁴²Monthly average of daily flow values.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IB
RECLAIMED WATER MONITORING – CLASS A+⁴³

Sampling Point Number	Sampling Point Identification		Latitude	Longitude
1	Downstream of the UV Channel (Sampling Port- 15feet of UV stream channel)		33° 27' 55" N	112° 21' 56" W
Parameter	DL	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen ⁴⁴ : Five-sample rolling geometric mean	10.0	mg/l ⁴⁵	Monthly Calculation	Quarterly
<i>E. coli</i> : Single-sample maximum	15.0	MPN ⁴⁶	Daily ⁴⁷	Quarterly
<i>E. coli</i> : Four (4) of last seven (7) samples ⁴⁸	Absence	MPN	Daily	Quarterly
Turbidity ⁴⁹ : Single reading	5.0	NTU ⁵⁰	Daily ⁵¹	Quarterly
Turbidity: 24-hour average	2.0	NTU	Daily	Quarterly
Enteric Virus: Four (4) of last seven (7) samples	Non-detect	PFU ⁵²	Suspended/ Monthly ⁵³	Quarterly

⁴³Reclaimed water monitoring under Table IB shall be performed in addition to routine discharge monitoring required under Section 4.2, Tables IA-1 or IA-2.

⁴⁴Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

⁴⁵mg/l = milligrams per liter

⁴⁶MPN = Most Probable Number / 100 ml sample. For MPN, a value of <2.2 shall be considered to be absence.

⁴⁷For *E. coli*, "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 seven-day period are obtained and analyzed.

⁴⁸To determine the appropriate start date begin with the last date in the reporting period on the SMRF and count seven (7) days backwards. If a minimum of four (4) samples in a seven (7) day period are non-detect (for CFU, a value of <1 is considered to be non-detect), report "yes" in the appropriate date on the SMRF (indicating that the standard has been met). If a minimum of four (4) samples in a seven (7) day period have detections of *E. coli*, report "no" in the appropriate date on the SMRF (indicating that the standard has not been met). 'Yes' or 'No' should be entered for every day in the reporting period.

⁴⁹Turbidimeter shall have a signal averaging time not exceeding 120 seconds. Occasional spikes due to back-flushing or instrument malfunction shall not be considered an exceedance. All exceedances must be explained and submitted to the Department with the corresponding quarterly SMRF.

⁵⁰NTU = Nephelometric Turbidity Units

⁵¹For the single turbidity reading, "Daily" means the maximum reading during the 24-hour period.

⁵²Plaque Forming Units per 40 Liters. A value of <1.1 PFU/40 L shall be considered to be non-detect.

⁵³Enteric virus sampling shall resume only when the discharge limit for the 24-hour average for turbidity is exceeded for two (2) consecutive 24-hour monitoring periods. Monthly enteric virus monitoring shall continue until four (4) out of seven (7) consecutive sample results show no detection. During times when enteric virus sampling is suspended, enter "suspended" in the appropriate space on the SMRF.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II-1
GROUNDWATER MONITORING (POC #3)

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
4	MW-1 (up-gradient), to be located near the southern boundary of the LARF site			33° 30' 36" North	112° 22' 44" West
Parameter	AL ⁵⁴	AQL ⁵⁵	Units	Sampling Frequency	Reporting Frequency
Depth to Water	150-270	Not Established ⁵⁶	ft bgs ⁵⁷	Monthly	Quarterly
Total Nitrogen ⁵⁸	8.0	10.0	mg/l ⁵⁹	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	8.0	10.0	mg/l	Monthly Calculation	Quarterly
Nitrate as N	8.0	10.0	mg/l	Monthly	Quarterly
Nitrite as N	0.8	1.0	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
<i>E. Coli</i>	Absence	Absence ⁶⁰	P/A ⁶¹	Monthly	Quarterly

⁵⁴ AL = Alert Level

⁵⁵ AQL = Aquifer Quality Limit

⁵⁶ Not Established means monitoring is required but no limits have been specified.

⁵⁷ ft bgs = feet below ground surface

⁵⁸ Total Nitrogen is equal to Nitrate as N plus Nitrite as N plus TKN.

⁵⁹ mg/l = milligrams per liter

⁶⁰ Absence means < 2.2 MPN per 100 ml.

⁶¹ P/A = Presence or absence of *E. Coli* in a 100-milliliter sample.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II-1
GROUNDWATER MONITORING (POC #3) (continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Metals (Total):					
Antimony	0.0048	0.006	mg/l ⁶²	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

⁶²mg/l = milligrams per liter

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 TABLES OF COMPLIANCE MONITORING

TABLE II-1
GROUNDWATER MONITORING (POC #3) (continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
Benzene	0.004	0.005	mg/l ⁶³	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) ⁶⁴	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

⁶³ mg/l = milligrams per liter⁶⁴ Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II-2
GROUNDWATER MONITORING (POC #4)

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
5	MW-2 MW-2 (down-gradient), to be located at the northern boundary of the LARF site			33° 30' 55" North	112° 22' 44" West
Parameter	AL ⁶⁵	AQL ⁶⁶	Units	Sampling Frequency	Reporting Frequency
Depth to Water	150-270	Not Established ⁶⁷	ft bgs ⁶⁸	Monthly	Quarterly
Total Nitrogen ⁶⁹	8.0	10.0	mg/l ⁷⁰	Monthly Calculation	Quarterly
Nitrate-Nitrite as N	8.0	10.0	mg/l	Monthly Calculation	Quarterly
Nitrate as N	8.0	10.0	mg/l	Monthly	Quarterly
Nitrite as N	0.8	1.0	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
<i>E. Coli</i>	Absence	Absence ⁷¹	P/A ⁷²	Monthly	Quarterly

⁶⁵ AL = Alert Level⁶⁶ AQL = Aquifer Quality Limit⁶⁷ Not Established means monitoring is required but no limits have been specified.⁶⁸ ft bgs = feet below ground surface⁶⁹ Total Nitrogen is equal to Nitrate as N plus Nitrite as N plus TKN.⁷⁰ mg/l = milligrams per liter⁷¹ Absence means < 2.2 MPN per 100 ml.⁷² P/A = Presence or absence of *E. Coli* in a 100-milliliter sample.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II-2
GROUNDWATER MONITORING (POC #4) (continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Metals (Total):					
Antimony	0.0048	0.006	mg/l ⁷³	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

⁷³mg/l = milligrams per liter

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 TABLES OF COMPLIANCE MONITORING

TABLE II-2
GROUNDWATER MONITORING (POC #4) (continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
Benzene	0.004	0.005	mg/l ⁷⁴	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) ⁷⁵	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

⁷⁴mg/l = milligrams per liter

⁷⁵Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE III
FACILITY INSPECTION (Operational Monitoring) - Log Book⁷⁶

Pollution Control Structures/Parameter	Performance Levels	Inspection Frequency	Reporting Frequency
Recharge Basins Freeboard	One (1) Linear Foot	Weekly	Quarterly
Pump Integrity	Good working condition	Weekly	Quarterly
Treatment Plant Components	Good working condition	Weekly	Quarterly
Recharge Basin Integrity	No visible structural damage, breach, or erosion of embankments	Weekly	Quarterly

⁷⁶ The permittee shall record the inspection performance levels in a log book as per Section 2.7.2, and report any violations or exceedances as per Section 2.7.3. In the case of an exceedance, identify which structure exceeds the performance level in the log book.

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: November 4, 2014
2. Final Engineering Report, dated: August 10, 2015
3. Final Hydrogeology Report, dated: August 13, 2015
3. Public Notice, dated: October 13, 2015
4. Public Hearing, dated: Not applicable.
5. Responsiveness Summary, dated: Not applicable.

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 as established by A.R.S. § 49-242.

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

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 aquifer water quality standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an aquifer water quality standard 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.
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 specified by this permit.

6.10 Permit Action: Amendment, Transfer, Suspension & 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, renewed, or revoked for cause, under the rules of the Department.

The permittee shall notify the Water Permits 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).

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EXHIBIT 14

MCESD COMPLIANCE REPORT

Maricopa County

Environmental Services Department

PUBLIC WATER SYSTEM COMPLIANCE STATUS REPORT

A review of all available records for the public water system listed below revealed that this permit is currently in COMPLIANCE with drinking water system regulations included in the Maricopa County Environmental Health Code as of 04/09/2020.

PWS ID #: **07-046**

PWS Name: **Liberty Utilities**

System Type*: **Community Water System**

Water Source Type(s): **Ground Water Only**

Population Served: **50,045**

Number of Service Connections: **18,119**

MCESD Permit Exp: **12/31/2020**

PWS Distribution Grade: **3**

PWS Treatment Grade: **3**

Certified Operator (CO): **Richard Rhoads**

CO Certification(s) Exp: **1/31/2021**

CO Distribution Grade: **2**

CO Treatment Grade: **3**

Date of Last Sanitary Survey: **2/19/2019**

Date of Last Facility Inspection: **12/18/2019**

Report for: **Permit Holder**

Report Tracking #: **DWR-**

Requestor Name/Contact Info: **Paul Friedman**

This above listed public water system currently has unresolved violations or deficiencies in the following compliance areas:

<input type="checkbox"/> Source Water	<input type="checkbox"/> Monitoring or Reporting (data verification)
<input type="checkbox"/> Treatment	<input type="checkbox"/> Management and Operations
<input type="checkbox"/> Distribution	<input type="checkbox"/> Operator Compliance
<input type="checkbox"/> Finished Water Storage	<input type="checkbox"/> Department Issued Permit
<input type="checkbox"/> Pumps	<input type="checkbox"/> Department Issued Plan Approvals
<input type="checkbox"/> Others (List):	

Description of unresolved violations or deficiencies noted in categories above:

No Current Violations noted in Drinking Water Watch

Additional documentation related to this review can be made available upon receipt of a public record's request. Contact the Drinking Water Program for more information.

Review Completed By: **Cynthia Hernandez, Environmental Specialist**

Phone: **(602) 506-6644**

Drinking Water Program

501 N. 44th St, Suite #200

Phoenix, Arizona 85008 Phone: (602) 506-6935 Fax: (602) 372-0866

Revised 12/2019

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EXHIBIT 15

WATER USE AND WASTEWATER USE DATA

Liberty Utilities
Water Use Data

Year	Month	Residential Customers	Commercial Customers	Other Non-Residential Customers	Potable Delivery Acre-Ft
2019	January	18015	502	816	728.6
2019	February	18041	502	816	689.29
2019	March	18072	502	819	723.03
2019	April	18137	503	819	785.17
2019	May	18183	501	820	1057.19
2019	June	18231	501	821	1138.15
2019	July	18265	501	822	1312.88
2019	August	18238	500	822	1371.54
2019	September	18327	502	824	1369.5
2019	October	18352	503	829	1153.67
2019	November	18371	507	831	964.79
2019	December	18380	510	832	890.84

Wastewater Data

Year	Month	Total Flow MG	Av. Flow MGD	Peak Flow MGD	Peak Day
2019	January	124.713	4.023	4.330	1/14/2019
2019	February	116.733	4.169	4.410	2/22/2019
2019	March	131.311	4.236	4.942	3/22/2019
2019	April	125.157	4.172	4.716	4/24/2019
2019	May	123.132	3.972	4.638	5/23/2019
2019	June	118.197	3.940	4.237	6/12/2019
2019	July	120.438	3.885	4.173	7/27/2019
2019	August	127.001	4.097	4.328	8/9/2019
2019	September	124.263	4.142	4.544	9/27/2019
2019	October	127.963	4.128	4.362	10/20/2019
2019	November	130.451	4.348	4.860	11/20/2019
2019	December	131.157	4.231	4.609	12/2/2019

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EXHIBIT 16

**NOTARIZED SIGNATURE
ON BEHALF OF LIBERTY LITCHFIELD PARK**

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