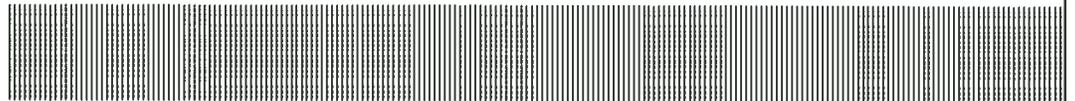




City of Prescott
Pretreatment Program

Chapter 1: Organization and Multi-Jurisdiction Implementation

July 2013



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Acronyms

AAC	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
APP	Aquifer Protection Permit
BNR	Biological Nutrient Removal
BOD ₅	5-Day Biological Oxygen Demand
CFR	Code of Federal Regulations
City	City of Prescott
CIU	Categorical Industrial User
IU	Industrial User
MJA	Multi-jurisdictional Agreement
mgd	million gallons per day
POTW	Publicly Owned Treatment Works
SIU	Significant Industrial User
USEPA	United States Environmental Protection Agency
UV	Ultraviolet
WRF	Wastewater Reclamation Facility
WRP	Wastewater Reclamation Plant
WWTP	Wastewater Treatment Plant



1. Organization and Multi-Jurisdiction Implementation

1.1. Background

The City of Prescott (City) operates and maintains a collection system, comprised of more than 365 miles of sewer piping and 64 lift stations, that discharges collected wastewater to the Airport Wastewater Reclamation Facility (WRF), the Sundog Wastewater Treatment Plant (WWTP), and the Hassayampa Village Wastewater Reclamation Plant (WRP). The City serves approximately 17,500 sewer users of which nearly 2,200 are industrial, institutional, or commercial. Industrial and institutional users include manufacturing facilities (e.g., Pure Wafer [formerly Exsil, Inc.] and Sturm Ruger & Company, Inc.); major medical facilities (the Bob Stump Veterans Administration Medical Center and the Yavapai Regional Medical Center); colleges (Embry Riddle Aeronautical University, Prescott College, and Yavapai College), and the Yavapai County Criminal Justice and Detention Center. Commercial users include restaurants, laundries, auto shops, car washes, commercial cleaners, and many others.

1.2. Pretreatment Program Objectives

Like other publicly-owned treatment works (POTWs), the City's wastewater collection and wastewater treatment systems are vulnerable to discharges of toxic or harmful pollutants from users. The treatment facilities are designed to reduce the quantities of organic materials, solids, and nitrogen in the wastewater, making it suitable for reuse or recharge to the aquifer. They are not designed to receive or remove many other pollutants which pose the risk of *interference* or *pass-through*. Interference occurs in various degrees of severity. When pollutants enter the POTW in elevated concentrations, they may inhibit or disrupt the biological treatment processes or facility operations. The results range from increased treatment costs to diminished effluent or biosolids quality. This may render the effluent unacceptable for reuse/recharge and could result in effluent quality permit violations. Likewise, low quality biosolids may not meet disposal criteria, drastically increasing disposal costs. Pass-through occurs when a pollutant exits the POTW in concentrations that exceed permit limitations or fail to meet effluent quality criteria.

In 1978, the United States Environmental Protection Agency (USEPA) promulgated the General Pretreatment Regulations, Title 40 Code of Federal Regulations (CFR) Part 403 (40 CFR 403), which defines the National Pretreatment Program. The Arizona

Administrative Code (AAC), Title 18 Article 9 Part 905(A)(8)(b) (R18-9-A905(A)(8)(b)) incorporates the general pretreatment regulations for existing and new sources of pollution contained in 40 CFR 403 and Appendices A, D, E, and G. The discharge of toxic or harmful pollutants can be effectively controlled through a local pretreatment program that is based on these regulations, structured to address specific local concerns, and enforced through a robust Sewer Use Ordinance.

The objectives of the City's Pretreatment Program are to: 1) facilitate the control of pollutant discharges into the collection system, 2) resolve collection system blockage and capacity reduction issues, 3) protect the treatment facilities from upset, 4) maintain high effluent and biosolids quality, and 5) protect city workers, the environment, and all citizens while promoting good relationships with users. The City's legal authority to implement the pretreatment program is established in Title II, Chapter 2-1 of the City Code.

1.3. Treatment System Descriptions

The following sections provide brief descriptions of the three wastewater treatment facilities that serve the City's service area and the regulatory criteria that govern them.

1.3.1. Airport WRF

The Airport WRF is permitted to treat up to 2.2 million gallons per day (mgd) and has treated approximately 1.04 mgd of wastewater on an annual average basis (2011 - 2012) from residential, commercial, and industrial sectors within the City. It is owned and operated by the City and is located at 2800 Melville Road. This facility consists of preliminary treatment (grit removal, bar screen, flow monitoring) and continues through biological nutrient removal (BNR) treatment (oxidation ditches, with anoxic basins for nitrogen removal), secondary clarification, sand filtration, and chlorine disinfection. Waste activated sludge is conditioned with polymer, dewatered by centrifuge, and hauled to landfill for disposal.

The Airport WRF produces Class B+ reclaimed water that is reused for golf course turf irrigation and/or sent to recharge basins. The Airport WRF operates under the Arizona Department of Environmental Quality (ADEQ) Aquifer Protection Permit (APP) P-101733, which was last modified on January 10, 2012. This permit is valid for the life of the facility provided that the facility is operated in accordance with the APP and does not violate effluent discharge limitations.

1.3.2. Sundog WWTP

The Sundog WWTP is permitted to treat up to 6 mgd and has treated approximately 2.07 mgd of wastewater on an annual average basis (2011-2012) from residential, commercial, and industrial sectors within the City. It is owned and operated by the City and is located at 1500 Sundog Ranch Road. This facility consists of preliminary treatment, primary clarification, BNR treatment (oxidation ditches designed for single-stage five-day biochemical oxygen demand [BOD₅] and nitrogen removal), secondary clarification, sand filtration, and UV disinfection supplemented with chlorine disinfection. Solids are processed by anaerobic sludge digestion, polymer conditioning, and belt press dewatering. Digested and dewatered biosolids are hauled offsite and land-applied or landfilled in accordance with state and federal regulations.

Sundog WWTP produces Class B+ reclaimed water that is transported via gravity flow to the Airport WRF recharge basins or reused for golf course turf irrigation, and construction purposes.

The Sundog WWTP operates under ADEQ APP P-100353, which was last modified on August 28, 2002. This permit is valid for the life of the facility provided that the facility is operated in accordance with the APP and does not violate effluent discharge limitations.

1.3.3. Hassayampa Village WRP

The Hassayampa Village WRP is permitted to treat up to 0.75 mgd and has treated approximately 0.2 mgd of wastewater on an annual average basis (2011-2012) from residential and commercial sectors of the City. It is owned by the City and operated by the Hassayampa Club Partners, LLLP. The Hassayampa Village WRP is located at 1990 Golf Club Lane. This facility is a scalping plant located within the Sundog WWTP receiving area. Flow is diverted from the Sundog WWTP collection system, treated to reuse standards and used for golf course irrigation. Influent flows to the Hassayampa Village WRP are adjusted to meet irrigation needs. The WRP consists of equalization, screening, activated sludge, sand filtration, and UV disinfection.

The Hassayampa Village WRP produces Class B+ reclaimed water that is reused for turf irrigation by the golf course. The Hassayampa WRP does not have sludge or biosolids handling facilities; excess sludge from the activated sludge system and any unused effluent is returned to the Sundog WWTP collection system.

The Hassayampa Village WRP operates under ADEQ APP P-103159, which was last modified on September 26, 2005. This permit is valid for the life of the facility provided

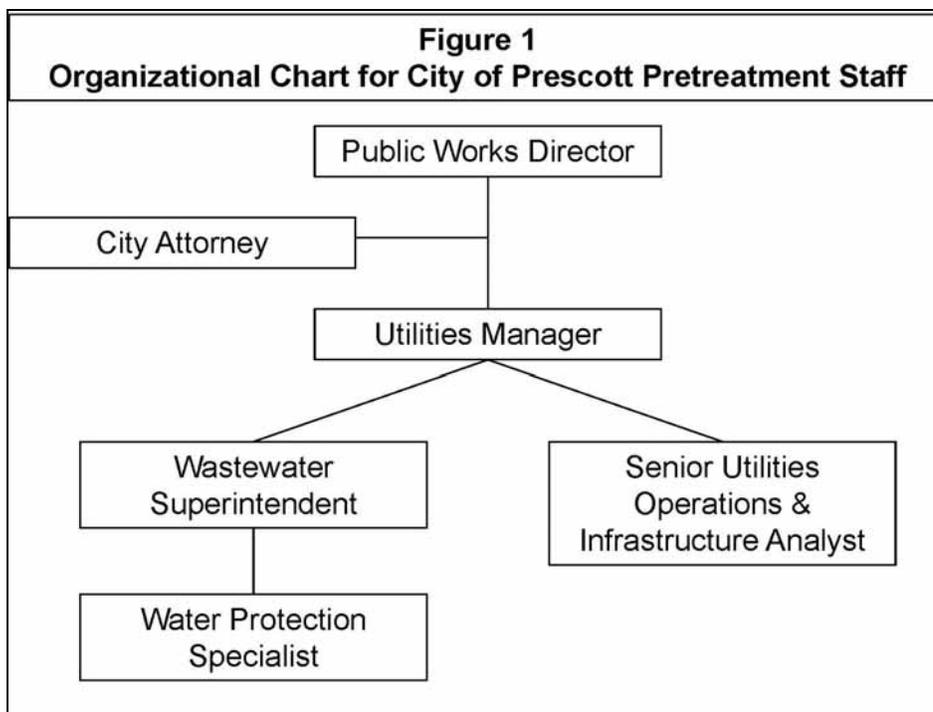
that the facility is operated in accordance with the APP and does not violate effluent discharge limitations.

1.4. Future Expansion Plans

As part of the City’s Wastewater Facilities Master Plan, hydraulic and treatment capacities for both the Airport WRF and Sundog WWTP were evaluated.

1.5. Pretreatment Program Organization

In accordance with 40 CFR 403.8(f)(5) and the City Code, the City Public Works Department is authorized to regulate and enforce Industrial User (IU) compliance with wastewater discharges to the collection system and treatment facilities. Figure 1 presents the organization chart for the Public Works Department involved with the Pretreatment Program.



The Water Protection Specialist is responsible for acting as the Compliance Inspector and conducting or overseeing compliance monitoring and facility inspections.

1.6. Contributing Jurisdictions

A portion of the City’s wastewater collection system is located on the Yavapai Prescott Indian Reservation (Reservation), and receives waste streams from users not located within city limits. Five neighboring agencies: Iron Springs Sanitary District, Creekside Sanitary District, Calvary Chapel Wastewater Improvement District, High Valley Ranch Improvement District, and Granite Gardens Sanitary District also discharge to the City’s wastewater collection system.

Currently the City does not have multi-jurisdictional agreements (MJAs) established with the Yavapai Prescott Indian Tribe or the neighboring sanitary and sewer improvement districts. An existing agreement between the Tribe and the City states that “All Reservation discharges to the City sewer system shall conform to the pretreatment standards applicable to similar non-Reservation discharges into the City sewer system.” While there are no identified Significant Industrial Users (SIUs) discharging from the Reservation, the City will continue to pursue a MJA on grounds of the existing agreement in order to have the legal authority to regulate reservation/tribal discharges.

The sewer customers in the neighboring sanitary and sewer improvement districts are almost exclusively residential, with only a few commercial users. The City will continue to evaluate land use within the contributing sanitary sewer districts for potential industrial users. Based on the current dischargers, establishing MJAs with the neighboring sanitary sewer districts is not an initial focus of the City’s Pretreatment Program.

A MJA defines the contributing jurisdiction’s responsibilities and identifies the City as having the primary responsibility for enforcing pretreatment standards and requirements for IUs located within the contributing jurisdiction. At a minimum, the contributing jurisdiction will adopt a pretreatment sewer ordinance and local limits for industrial discharges that are at least as stringent as the City’s. The MJA will also detail requirements concerning transfer of records and right of entry for inspection and monitoring. A MJA would require approval from the City before the contributing jurisdictions would be able to add industrial connections to the collection system. An example MJA is presented in Appendix A.

Appendix A

Example of Multi-Jurisdiction Agreement

MULTIJURISDICTIONAL AGREEMENT FOR PRETREATMENT PROGRAM
between City of Prescott and [Contributing Jurisdiction]

This Agreement is entered into this ___ day of _____, 20__ between the City of Prescott and [Contributing Jurisdiction] (hereinafter jointly referred to as the “Parties”).

RECITALS

1. The City of Prescott (“City”) is required by federal and state law to have a pretreatment program in all jurisdictions which it serves or from which it accepts wastewater. The City owns and operates sewer collection system, the Airport Wastewater Reclamation Facility (WRF), and the Sundog Wastewater Treatment Plant.
2. [Contributing Jurisdiction] currently utilizes this sewer collection system and one or both of these wastewater treatment plants.
3. Facilities located in the [Contributing Jurisdiction] currently contribute wastewater which includes industrial waste. These facilities are hereinafter referred to as industrial users.
4. The City must implement and enforce a pretreatment program to control discharges from all industrial users of its wastewater treatment systems pursuant to requirements set out in 40 CFR 403 and AAC R18-9-A905(A)(8)(b). In this Agreement, [Contributing Jurisdiction] agrees to adopt a sewer use ordinance that subjects the industrial users within its boundaries to the necessary pretreatment controls, and [Contributing Jurisdiction] is authorized to implement and enforce that sewer use ordinance.

AGREEMENT

1. [Contributing Jurisdiction] will adopt a local sewer use ordinance which is no less stringent and is as broad in scope as the sewer use ordinance, City Code, Title II, Chapter 2-1. [Contributing Jurisdiction] will adopt its sewer use ordinance within 30 calendar days of receiving approval from the City of its content.
2. Whenever the City revises its sewer use ordinance, it will forward a copy of the revisions to [Contributing Jurisdiction]. [Contributing Jurisdiction] will adopt revisions to its sewer use ordinance that are at least as stringent as those adopted by the City. [Contributing Jurisdiction] will forward to the City for review its proposed revisions within 30 calendar days of receipt of the City’s revisions. [Contributing Jurisdiction] will adopt its revisions within 30 calendar days of receiving approval from the City of the content thereof.
3. [Contributing Jurisdiction] will adopt pollutant specific local limits which address at least the same pollutant parameters and are at least as stringent as the local limits enacted by the City within 30 calendar days of this Agreement. If the City makes any revisions or additions to its local limits, the City will forward to [Contributing Jurisdiction] a copy of such revisions or

additions within 30 calendar days of enactment thereof. [Contributing Jurisdiction] will adopt any such revisions or additions within 30 calendar days of receipt thereof.

4. [Contributing Jurisdiction] designates the City as the agent of [Contributing Jurisdiction] for the purposes of implementation and enforcement of [Contributing Jurisdiction]'s sewer use ordinance against industrial users located in [Contributing Jurisdiction]. The City may take any action under [Contributing Jurisdiction]'s sewer use ordinance that could have been taken by [Contributing Jurisdiction], including the enforcement of the ordinance in courts of law.
5. The City, on behalf of and as agent for [Contributing Jurisdiction], will perform technical and administrative duties necessary to implement and enforce [Contributing Jurisdiction]'s sewer use ordinance. The City will: 1) update the industrial waste survey; 2) issue permits to all industrial users required to obtain a permit; 3) conduct inspections, sampling, and analysis; 4) take all appropriate enforcement action as outlined in the City's enforcement response plan and provided for in [Contributing Jurisdiction]'s sewer use ordinance; and 5) perform any other technical or administrative duties the Parties deem appropriate. In addition, the City may, as agent of [Contributing Jurisdiction], take emergency action to stop or prevent any discharge which presents or may present an imminent danger to the health or welfare of humans, which reasonable appears to threaten the environment, or which threatens to cause interference, pass-through, or sludge contamination.
6. Before an industrial user located outside of the jurisdictional boundaries of [Contributing Jurisdiction] discharges into [Contributing Jurisdiction]'s sewer system, [Contributing Jurisdiction] and the City will enter into an agreement with the jurisdiction in which such industrial user is located. Such agreement will be substantially equivalent to this Agreement and must be entered into prior to a discharge from any such industrial user.
7. The City will be responsible for all costs incurred by it in implementing and enforcing [Contributing Jurisdiction]'s sewer use ordinance.
8. If any term of this Agreement is held to be invalid in any judicial action, the remaining terms will be unaffected.
9. The Parties will review and revise this Agreement to ensure compliance with the Federal Clean Water Act (42 U.S.C. Sect. 1251 et seq.) and rules and regulations (see 40 CFR 403) issued thereunder, as necessary, but at least once every two years on a date to be determined by the Parties.

In witness whereof, the Parties hereto have caused this document to be executed on the dates set forth below.

City of Prescott:

Public Works Director

Attest:

City Clerk

[Contributing Jurisdiction]:

Attest:
