DRAFT

NORTHERN GILA COUNTY SANITARY DISTRICT

******

AMERICAN GULCH WATER RECLAMATION AND REUSE FACILITY EXPANSION

CENTRAL ARIZONA GOVERNMENTS

208 PLAN AMENDMENT

Prepared for:

NORTHERN GILA COUNTY SANITARY DISTRICT

AND

CENTRAL ARIZONA GOVERNMENTS

APRIL 2017

MOORE AND ASSOCIATES, INC.

305 Monarch Cove

Cedar Park, TX 78613

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICIES

EXECUTIVE SUMMARY

The Federal Water Pollution Control Act Amendments of 1972 and 1977 (Clean Water Act) made provision for each State to maintain control of the planning of wastewater treatment facilities within their State. Section 208 of the Act calls for developing and implementing area wide water quality management plans to fulfill the requirements of this Act. The Central Arizona Government (CAG) is the designated agency that was given the responsibility to implement the 208 Water Quality Management Plan in Pinal and Gila Counties. CAG has adopted a 208 Planning Process, with appropriate rules and guidelines that aid in identifying specific area-wide wastewater treatment and water quality problems and in recommending appropriate management programs to protect the environment.

The Northern Gila County Sanitary District is located in Payson, Arizona in Gila County and owns and operates a 2.2 MGD wastewater treatment facility, the American Gulch Water Reclamation and Reuse Facility. It is the Designated Management Area for the Town of Payson and, as such, has the authority required by Section 208(c)(2) of the Clean Water Act to implement the plan for its planning and service area. In accordance with the Arizona Department of Environmental Quality any facility that approaches 80% of its stated capacity should be in design of its next expansion to assure that all future development is adequately serviced. Present average daily flows of 1.7 MGD to this facility has triggered the design and construction of an expansion to 3.5 MGD. An APP amendment for this expansion has been approved. To complete the process, it is necessary to prepare and file an amendment to the CAG 208 Plan.

The American Gulch Water Reclamation and Reuse Facility is designed to remove nitrogen and phosphorous biologically and, as such, meets the Arizona Department of Environmental Quality Best Available Demonstrated Control Technology requirements under an Individual Aquifer Protection Permit.

Effluent from this Facility is reused in the spring, summer and fall months and discharged to American Gulch during the winter months and/or when the summer rains create high flows (due to infiltration and inflow) in the collection system that exceeds the capacity of the Facility effluent pump station. Reuse of the Class A+ quality effluent consists of groundwater recharge at the Green Valley Park lake and irrigation of the Payson Golf Course, Chaparral Pines Golf Course, Rim Club Golf Course, Pioneer Cemetery, Green Valley Park and the Payson High School ball fields. Discharge to American Gulch must meet the standards set forth in the AZDPES Permit.

Projected population and wastewater flow estimates were made based upon POPTAC data combined with data from the Town of Payson Land Use Plan and is consistent with the flows projected in the District's collection system Master Plan prepared by TetraTech, Inc. The service area of the District is 13.5 square miles and envelopes the Town of Payson boundary and includes the Mesa del Caballo development north of Payson on Houston Mesa.

The District has received letters of support from Gila County, the Town of Star Valley and the Town of Payson.

INTRODUCTION

The Federal Water Pollution Control Act Amendments of 1972 and 1977 (Clean Water Act) made provision for each State to maintain control of the planning of wastewater treatment facilities within their State. Section 208 of the Act calls for developing and implementing area wide water quality management plans to fulfill the requirements of this Act. The Central Arizona Government (CAG) is the designated agency that was given the responsibility to implement the 208 Water Quality Management Plan in Pinal and Gila Counties. CAG has adopted a 208 Planning Process, with appropriate rules and guidelines that aid in identifying specific area-wide wastewater treatment and water quality problems and in recommending appropriate management programs to protect the environment.

The Northern Gila County Sanitary District is located in Payson, Arizona in Gila County and owns and operates a 2.2 MGD wastewater treatment facility, the American Gulch Water Reclamation and Reuse Facility. It is the Designated Management Area for the Town of Payson and, as such, has the authority required by Section 208(c)(2) of the Clean Water Act to implement the plan for its planning and service area. In accordance with the Arizona Department of Environmental Quality any facility that approaches 80% of its stated capacity should be in design of its next expansion to assure that all future development is adequately serviced. Present average daily flows of 1.7 MGD to this facility has triggered the design and construction of an expansion to 3.5 MGD. An APP amendment for this expansion has been approved. To complete the process, it is necessary to prepare and file an amendment to the CAG 208 Plan. This report is being filed with CAG to satisfy their requirements of their Plan Amendment. The preparation of this document has closely followed the 208 Checklist, Section 208 of the Clean Water Act (40 CFR §130.6) provided by CAG.

DISTRICT HISTORY

Until 1958, the Town of Payson, Arizona (a mountain community approximately 90 miles northeast of Phoenix) could be reached only after hours of travel from Phoenix. The completion of State Highway 87 in 1958 opened opportunities for city dwellers in the Salt River Valley to escape the hot summers and enjoy winter snows in the Mogollon Rim area. With the greater accessibility came an increase in development in the area.

The Northern Gila County Sanitary District was established in 1965 in response to the rapid growth of Payson and the need to protect the environment and resulted in planning and constructing a central collection, treatment and discharge of the community wastewater. The first wastewater treatment facility was constructed in 1972 to treat and discharge 350,000 gallons per day. Continued growth of the community soon caused problems in meeting the effluent discharge standards set forth by the Arizona Department of Environmental Quality (ADEQ), especially with regard to nutrients such as nitrogen and phosphorous. The facility discharges to the American Gulch, a tributary to the East Verde River. The East Verde River is tributary to the Verde River which provides potable water to the Salt River Valley; namely, the City of Phoenix.

In 1983, with the support of the community, the District began the design and construction of a 1.7 million gallon per day (MGD) facility that removes nitrogen and phosphorous from

wastewater as well as normal organic substances found in domestic wastewater that could contribute to oxygen depletion in the rivers receiving discharge. This facility was designed to meet the wastewater treatment requirements for the next 20 years. The 1.7 million gallons per day facility was completed and placed in operation in 1984. Soon after operation began it was determined that nitrogen and organic compounds could be biologically removed with relative ease. However, phosphorous removal was inconsistent and needed an additional unit process to achieve consistent phosphorous removal. The developer of the biological process that was employed had completed further research to address the process problem. In early 1989, a volatile fatty acid basin was constructed that aided resolving the issues of consistent phosphorous removal.

In 1989, the District partnered with the Town of Payson to facilitate the construction of Green Valley Park. The construction of the Park allowed the District to use effluent to recharge the groundwater in that area. It also allowed the District to facilitate the delivery of effluent to the Pioneer Cemetery, Payson High School, Chaparral Pines Golf Course, Payson Golf Course and the Rim Club Golf Course for reuse.

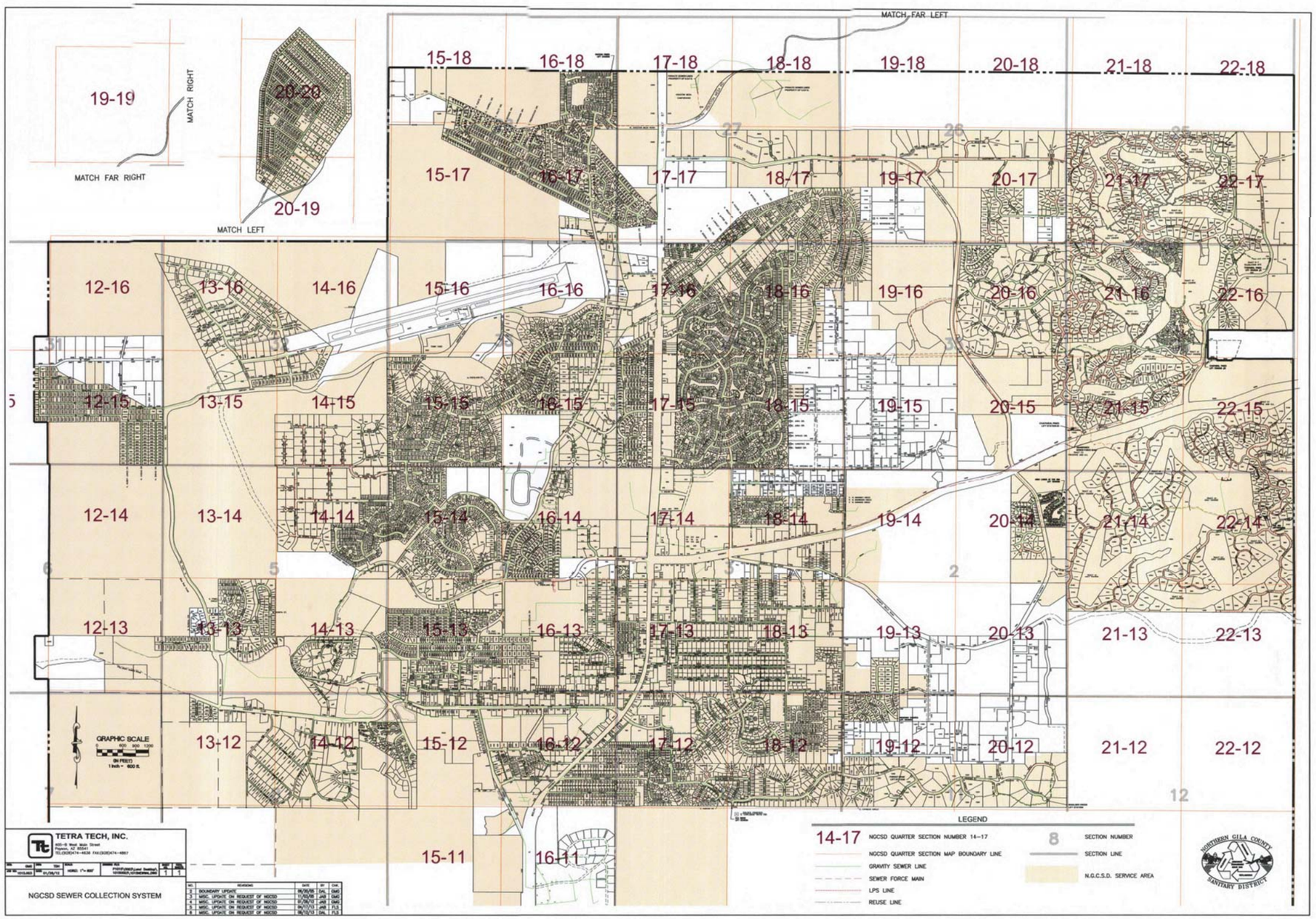
In 1997, additional automatic backwash filters and ultra-violet disinfection units were added to assure adequate treatment during wet weather flows (periods of high storm water infiltration). In 2009, based upon actual plant operating data, the process was mathematically resized and proven that it can now handle an average dry weather flow of 2.2 MGD

In 2010 a secondary sedimentation basin was added and modifications to the two existing secondary sedimentation basins were made to adequately receive and treat high flows that occurred during times of infiltration during the wet weather. In addition, the Biosolids Enrichment and Recycle (BER) process that converted the biosolids to fertilizer was removed from service because of the high costs of adding anhydrous ammonia and phosphoric acid and the loss of sources willing to take the final product. The District had constructed a new biosolids building in preparation for future construction of a larger BER system. With the decision to change the means of biosolids disposal, the District opted to install two (2) 1.0 meter sludge presses to replace the press that was part of the original BER and a standby press. Arrangements were made to contract with Waste Management to haul the dewatered biosolids to the Butterfield landfill in Maricopa County

DISTRICT SERVICE AREA

The District service area includes the area within the Town of Payson boundary plus the Mesa del Caballo subdivision situated on the Houston Mesa north of Town. Other than the Town of Star Valley, to the east, the District is surrounded by the Tonto National Forest. Figure 1 shows the limits of the District service area. Some areas within the service area are not yet sewered and some areas are not buildable due to mountainous terrain. Therefore, the future potential growth is limited.

The Tonto Apache Indian Reservation, on the southern boundary of the District, is connected to the District sewer and owns and operates its own wastewater treatment facility. There are no other privately owned wastewater treatment utilities within the District boundary.



M:\Optic\ACS\Moore and Associates\As-Builts\FIGURES\FIGI.dwg Plotted: Mar 27, 2017

MOORE AND ASSOCIATES, INC.
SANITARY * CIVIL * SURVEYORS
305 MONARCH COVE, CEDAR PARK, TX 78613
(928) 713-3949

FIGURE 1

DISTRICT SERVICE AREA

NORTHERN GILA COUNTY SANITARY DISTRICT
AMERICAN GULCH WASTEWATER RECLAMATION AND REUSE FACILITY
PAYSON, ARIZONA

Registered Professional Engineer
CERTIFICATE NO. 9293
TERRY L. MOORE
Date Signed
ARIZONA, U.S.A.
EXPIRES 9-30-18

REVISIONS		
DATE	NO.	DESCRIPTION

JOB NO.

DRAWN	DESIGN
MLH	TLM
CHECKED	APPROVED
TLM	TLM

DATE: DEC 2015
SHEET OF
DWG. NO.

Figure 2 shows the 2014 Town of Payson Land Use Map. The areas designated as open space (green areas) on the north, south, southeast and west edge of the Town boundary are unbuildable due to rough mountainous terrain. Industrial land use around the Town airport on Airport Road presently contain light commercial/industrial. The Tonto Apache Indian Reservation on the south is connected to the Northern Gila County Sanitary District but also owns and operates its' own wastewater treatment facility.

POPULATION PROJECTION

The Arizona Department of Economic Opportunity POPTAC population estimates for the District's service area are shown in Table 1. The estimates are for the Town of Payson plus the Mesa del Caballo service area for the next twenty years.

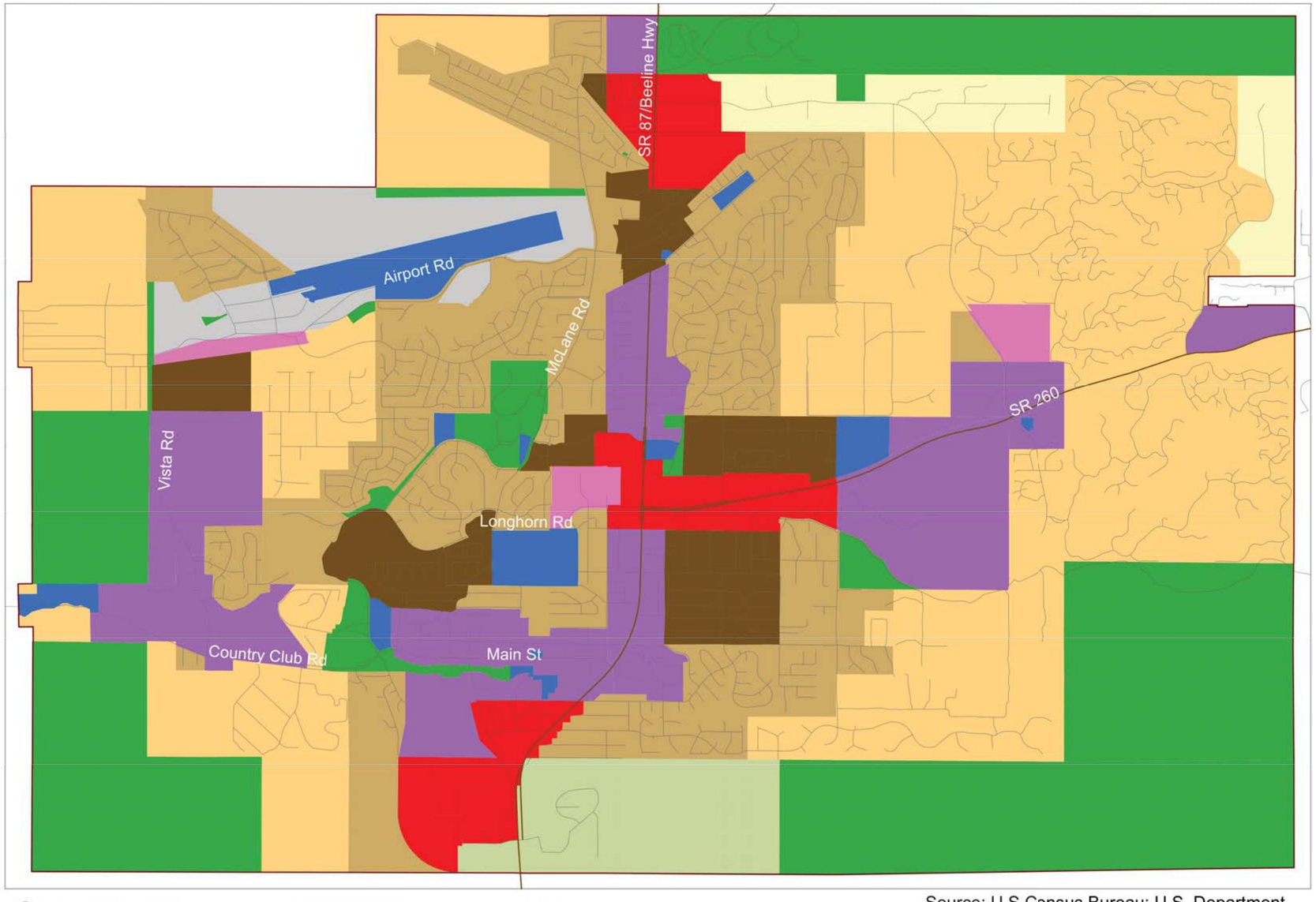
Further examination of the POPTAC data through 2050 projects that the population in the District service area will peak in 2037 at 17,727.

WASTEWATER FLOW PROJECTIONS

The District has engaged TetraTech, Inc. to maintain their collection system Master Plan. The Plan divides the service area into drainage areas and projects wastewater flows in each area based upon projected future population, the Towns' Land Use Plan, and existing water use data. Storm water infiltration/inflow projections are based upon gallons per day per acre. The total dry weather wastewater flows for the entire service area at build out is projected to be 3.15 MGD. Peak wet weather flow for the service area is projected to be 9.19 MGD. Since zoning in Payson is subject to change based upon the needs of the community, the Districts' engineer is recommending that future capacity be established at 3.5 MGD. Flow data shows that the plant peaking factor for dry weather conditions is between 1.9 and 2.0 peak to average daily flow. Therefore the peak dry weather capacity of the plant will be 7.0 MGD. An examination of infiltration/inflow has not been possible since the prior influent flow meter was not large enough to measure actual flows at peak wet weather conditions. It is estimated that storm water flows are in the region of 3,000 to 3,400 gpm or 5.0 MGD. A review of the interceptor entering the plant establishes a line capacity of 12.0 MGD at minimum slope before surcharging of the line. Therefore, the future additions to the treatment facility should be such that the facility can adequately treat a peak dry weather flow of 7.0 MGD and be adequate to handle peak wet weather flows of 12.0 MGD.

According to District records, approximately 1.9 MGD of its present 2.2 MGD capacity is committed to wastewater generators in its' service area. Since 86% of the facilities capacity is committed the District has already implemented and completed the studies, designs and construction necessary to increase the facility capacity to 3.5 MGD.

Town of Payson
2014
Land Use Map



Land Use Designations

- RDR-Rural Density Res
- LDR-Low Density Res
- MDR-Medium Density Res
- MFR-Mulitfamily Res
- Civic
- Mixed Use
- Office
- Commercial
- Industrial
- Open Space
- Tonto Apache Reservation

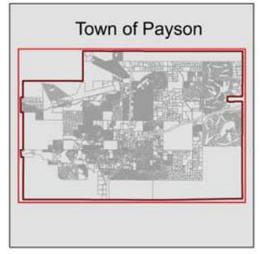
Reference

- Town Roads
- State Roads
- Town Boundary

North

0 0.25 0.5 1 1.5 2 Miles

Source: U.S.Census Bureau; U.S. Department of the Interior Bureau of Land Management; Gila County Assessor's Office, Town of Payson
Analysis: TischlerBise; Berkley Group



MOORE AND ASSOCIATES, INC.
SANITARY • CIVIL • SURVEYORS
305 MONARCH COVE CEDAR PARK, TX 78613
(928) 713-3849

FIGURE 2

TOWN OF PAYSON LAND USE MAP

NORTHERN GILA COUNTY SANITARY DISTRICT
AMERICAN GULCH WASTEWATER RECLAMATION AND REUSE FACILITY
PAYSON, ARIZONA

9293 TERRY L. MOORE Registered Professional Engineer CERTIFICATE NO. State of Arizona USA
EXPIRES 9-30-18

REVISIONS		
DATE	NO.	DESCRIPTION

JOB NO.

DRAWN	DESIGN
MLH	TLM
CHECKED	APPROVED
TLM	TLM

DATE: DEC 2015
SHEET OF
DWG. NO.

M:\Optic\ACS\Moore and Associates\As-Builts\FIGURES\FIG2.dwg Plotted: Mar 27, 2017

TABLE 1

POPTAC POPULATION PROJECTIONS

NORTHERN GILA COUNTY SANITARY DITRICT SERVICE AREA

Year	Town of Payson	Mesa del Caballo	Total
2017	16,109	685	16,794
2018	16,274	685	16,959
2019	16,419	685	17,104
2020	16,539	685	17,224
2021	16,618	684	17,302
2022	16,689	683	17,372
2023	16,753	682	17,435
2024	16,809	681	17,490
2025	16,859	680	17.539
2026	16,898	678	17,576
2027	16,930	677	17,607
2028	16,956	676	17,632
2029	16,975	674	17,649
2030	16,988	672	17,660
2031	17,010	671	17,681
2032	17,026	669	17,695
2033	17,036	667	17,703
2034	17,043	665	17,708
2035	17,049	663	17,712
2036	17,055	661	17,716
2037	17,064	658	17,727

REGULATORY PERMITS

There are two regulatory permits that have been promulgated by the USEPA and the Arizona Department of Environmental Quality which outlines the limits of treatment at the American Gulch Water Reclamation and Reuse Facility. The policy of the Arizona Department of Environmental Quality is that a facility must be in planning and design of the expansion of such when average daily flows (or committed flows) to that facility reach 80% of it's design capacity. The regulatory permits that apply at the Northern Gila County Sanitary District are: 1) the Aquifer Protection Permit for protection of Arizona groundwater aquifers; 2) the AZPDES Permit for discharge to surface waters of the United States which includes the EPA 503 Regulatory Permit for biosolids treatment and disposal.

Aquifer Protection Permit

The requirements for obtaining an ADEQ Aquifer Protection Permit (APP) are spelled out in Arizona Administrative Code (A.A.C.) R18-9. The permit contains requirements that allow the permittee to comply with two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards at a designated Point of Compliance; and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). BADCT's purpose is to employ engineering controls, processes, operating methods or other alternatives to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer or to prevent pollutants from reaching the aquifer.

Since the American Gulch Water Reclamation and Reuse Facility pumps their effluent to Green Valley Park for groundwater recharge and also conveys it's effluent to various irrigation sites throughout the District's service area, the APP sets effluent limits for recharge and reuse.

The routine discharge monitoring constituents relate to fecal coliform standards and nitrogen standards. E. coli (fecal coliform) limits are non-detectable (zero) in four out of the last seven samples and a single sample maximum of 15 E. coli units. These samples are required to be taken daily and reported monthly. Total nitrogen is measured by adding nitrate as N, nitrite as N, and total Kjeldahl nitrogen as N as a 5-sample rolling geometric mean. The discharge limit is set at 10 mg/l Total Nitrogen and is sampled monthly and reported quarterly. An "alert limit" for Total Nitrogen has been established at 8.0 mg/l. This limit acts as the alarm that triggers a process investigation to determine why the nitrogen is about to exceed 10 mg/l and warrants action or process change to avert the discharge limit. Other monitoring requirements include quarterly sampling of Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cyanide, Fluoride, Lead, Mercury, Nickel, Selenium, and Thallium and have alert limits and discharge limits. In addition, volatile organic compounds (VOC's), mostly carcinogenic compounds, are measured semi-annually and have alert and discharge limits

The APP contains the reclaimed water quality monitoring requirements for Total Nitrogen, E. coli and turbidity. The discharge limit for Total Nitrogen is 10 mg/l (five sample rolling geometric mean), sampled monthly and reported quarterly. E. coli limits are non-detectable (zero) in four out of the last seven samples and a single sample maximum of 23 E. coli units. These samples are required to be taken daily .and reported quarterly. Turbidity is required to be taken every day and reported quarterly. The turbidity limits are 5.0 NTU single read and 2.0 NTU on a 24-hour average.

The American Gulch Facility has consistently met the discharge limits in every category.

Arizona Pollutant Discharge Elimination System

The State of Arizona has established stringent water quality standards for the Verde River and its tributaries. The AZPDES program regulates discharges to surface waters of the United States (specifically within Arizona) and establishes effluent standards of discharge to protect these waters. The effluent quality standards for the American Gulch Facility include Nitrogen limitations of less than 1.0 mg/l Total Nitrogen and a total Phosphorous limitations of less than 0.1 mg/l.

In order to meet the stream standards with the discharge from the American Gulch Facility, American Gulch was declared "an effluent dominated stream" and the District was given a "variance" for their discharge. The District was allowed to employ a 500 meter mixing zone in the East Verde River at the confluence of the East Verde and American Gulch where the effluent is mixed into the flows of the East Verde.

With the implementation of the effluent reuse and groundwater recharge program the impact of discharging to the East Verde River is minimized. The District discharges to American Gulch only during periods of peak wet weather flow.

The District is required to monitor the quality of the effluent discharge both at the effluent discharge and at the end of the mixing zone in the East Verde River. Total Nitrogen and Total Phosphorous are sampled monthly and reported to ADEQ monthly.

The regulation of biosolids treatment and disposal comes under the AZPDES Permit. Arizona is required to follow the USEPA 503 regulation promulgated by Congress. These regulations are applicable to the generator and disposer and/or end user of biosolids. The District is permitted to dewater biosolids in a 1.0 meter sludge filter press and currently contracts with Waste Management for its' ultimate disposal. Both the District and Waste Management are required to test the biosolids and submit results to ADEQ on an annual basis. The biosolids from the District must pass a "paint filter test" to assure that excessive liquids are not present prior to being transported by Waste Management. In addition, the District must perform annual testing for heavy metals.

WASTEWATER TREAMENT FACILITY PRIOR TO EXPANSION

Prior to the expansion just completed, the existing American Gulch Water Reclamation and Reuse Facility treated 2.2 MGD of wastewater from the District service area. To meet the stream standards of the Verde River and its tributaries the District selected the Modified Bardenpho process as the Best Available Demonstrated Control Technology (BADCT) to achieve its effluent quality goals.

Prior to the present expansion, the Facility operated as follows: Wastewater flow enters the Facility site on the East side of the property. The wastewater flowed through a headworks consisting of an automatic bar screen, Parshall flume flow meter and a vortex grit chamber. The

grit chamber was equipped with a grit pump and grit washer/concentrator. Grit and screenings were stored in steel containers and removed and transported to the local landfill periodically.

Flow from the headworks was piped west to the volatile fatty acid basin where settled solids were stored until volatile fatty acids were generated. Solids from the basin were continuously recycled to the head of the basin to elutriate volatile fatty acids that formed. Periodically, solids were pumped to the Modified Barnpho process. Effluent from the Volatile Fatty Acid basin was continuously pumped to the Modified Bardenpho process.

The Modified Bardenpho process consisted of two parallel trains of five (5) zones per train. The five zones are:

1. Anaerobic Zone
2. Anoxic Zone No. 1
3. Nitrification Zone
4. Anoxic Zone No. 2
5. Reaeration Zone

The anaerobic zone and two anoxic zones contain vertical mixers while the nitrification and reaeration zone contain fine bubble diffusers for supplying oxygen to the process. The Modified Bardenpho process achieves removal of three major constituents in the effluent stream: reduction of phosphorous, reduction of total nitrogen and reduction of carbon sourced products that could deplete oxygen in the tributary streams and cause major fish kills.

1. In the anaerobic zone (no oxygen) the biological organism releases intercellular phosphorous due to lack of oxygen. As the flow enters the nitrification zone the abundance of oxygen causes a luxury uptake of phosphorous so that the organism "takes up" what it released as well as what is in the influent stream. Volatile fatty acids in the influent to the nitrification zone is key to a consistent stable phosphorous uptake. The remaining zones downstream act as polishing basins.
2. Anoxic zone number one and the nitrification zone must be operated together to achieve nitrogen reduction. Ammonia nitrogen in the influent is converted to nitrate nitrogen in the nitrification zone and is recycled to the anoxic zone. The anoxic zone operates at a dissolved oxygen level close to but above zero. Under those conditions, the oxygen of the nitrate molecule is stripped from the molecule resulting in the formation of nitrogen gas that is released to the atmosphere. The second anoxic zone and reaeration zone are used to polish the effluent.
3. The overall process results in the conversion of carbon compounds (basically sugar) by the biological organisms to carbon dioxide and water and results in the organism growth that is wasted from the system to maintain process balance.

Oxygen for the organisms was provided to the nitrification zone and the reaeration zone by centrifugal blowers. Dissolved oxygen was automatically regulated in the nitrification zone by a dissolved oxygen probe that monitors the DO and controls air flow via a modulating valve on the discharge of the blowers.

Mixed liquor suspended solids from the Modified Bardenpho process flowed through a flow splitting structure to three circular secondary sedimentation basins where biosolids were separated from the liquid stream. The separated biosolids were removed through telescoping valves and pumped back to the head of the Modified Bardenpho process. A separate pump wastes biosolids to the belt filter press for dewatering and ultimate biosolids disposal. The clear liquid, treated effluent flowed over the sedimentation basin weirs to the traveling bridge sand filters.

The filtered effluent flowed through the self contained in-line ultraviolet disinfection units over a flow measuring weir and into the effluent pump station wet well. The pump station pumps the effluent to the Green Valley Lake, Payson Golf Course and Pioneer Cemetery. There is a pump station at the Green Valley Lake that further distributes effluent to the Payson High, Chaparral Pines Golf Course and the Rim Golf Course. It also irrigates Green Valley Park.

EFFLUENT DISPOSAL OPTIONS

The primary goal of the Northern Gila County Sanitary District is to reclaim and reuse as much wastewater effluent as possible. To that end, they operate the American Gulch Water Reclamation and Reuse Facility to maximize effluent reuse. Since groundwater is scarce in the Payson area the District works in cooperation with the Town to allow effluent to be recharged to the groundwater through the lakes at Green Valley Park.

High infiltration and inflow of storm water to the facility occurs during the summer monsoon season and in winter months snow melt. During those times it is necessary to discharge excess effluent to American Gulch. It is also necessary to discharge to American Gulch during the months that effluent disposal sites such as golf course grasses are dormant. At all other times, effluent is pumped to the following effluent disposal sites:

- Green Valley Lake and Park -owned by the Town of Payson
- Payson Golf Course - privately owned by Harry Parsons, open to the public
- Payson High School Ball Fields - owned by the Payson School District
- Chaparral Pines Golf Club - private gated development with golf course
- Rim Golf Club - private gated development with golf course
- The Pioneer Cemetery - Managed by the Payson Women's Club

RECOMMENDED FACILITY ADDITIONS

The following is a description of the additions that have been completed under a recent APP approval to achieve a design capacity of 3.5 MGD.

1. Construction of a new headworks

The original headworks consisted of an automatic bar screen, Parshall flume and grit removal. This configuration could not handle the high wet weather flows at times without adding sand bags to restrain influent flows. There were times that the capacity of the influent flow meter (Parshall flume) was also exceeded. To resolve these issues a new headworks will be constructed

and placed in operation. The new headworks consists of a new fine bar screen with screenings washing and compaction, flow meter and grit removal system with grit washer and concentrator that is designed to handle the future capacity of the facility with allowance for wet weather flows (namely 12.0 MGD). The existing instrumentation and SCADA were updated.

2. Construction of an additional 1.3 MGD modified Bardenpho train. A third modified Bardenpho train has been added as follows:

- Construction of the third process train with a new flow splitter box upstream of the secondary sedimentation basins.
- Replacement of fine bubble diffusers in the existing nitrification and reaeration basins. The existing PVC piping attached to the diffusers, after 27 years of operation, has become brittle. Fine bubble diffusers have been installed in the new nitrification and reaeration basins.
- Slope floor of all nitrification basins (existing and new) to assist in easier cleaning of these basins.
- Addition of 24" diameter sluice gates at critical locations that allow easier cleaning of all basins.
- Installation of three submersible pump sumps with a single portable pump and associated piping to transfer liquid between nitrification basins and transfer solids to basin on the north end of the structure that will allow a more complete cleaning of process basins.
- Replace existing centrifugal blowers with high speed turbine blowers that are variable speed controlled. These blowers will vary the delivery of air based upon the dissolved oxygen in the aeration basins and the need for oxygen.
- Remove the existing flow splitter box upstream of the three secondary sedimentation basins and replace with the new flow splitter box in the process train structure.
- Abandon existing underground piping between the new headworks and the process trains. Install a new mixing channel that blends the flow of the influent, return sludge recycle, effluent filter backwash water, sludge press underflow, and volatile fatty acid effluent. The basin will be followed by weirs and sluice gates that will allow the influent flow to be proportionately divided between the three main process basins.
- Existing process control instrumentation and SCADA hardware and software was updated.

3. Construction of new VFA basin. The existing VFA basin was inadequate to handle future flows and a new VFA basin was added between the new headworks and the process trains.

- The design includes gravity flow from the headworks through the new VFA basin to the process trains; construction of a new VFA basin with covers, odor control and sludge pumping for elutriation and transfer of solids to the process trains.
- The process instrumentation and SCADA hardware and software was updated.

4. Conversion of existing VFA basin to secondary sedimentation basin. The existing VFA basin has been converted to a secondary sedimentation basin. The concrete basin was modified

to provide a sludge hopper in the influent end with a screw auger that transports the sludge to the south side of the basin. A separate vault with a telescoping valve has been piped to the sludge hopper. The discharge side of the telescoping valve vault houses a weir for measuring return sludge flows. Flow from the vault is directed to the waste backwash water pump station for pumping the return to the mixing channel of the new VFA basin. The weirs, launders and baffles have been replaced and raised to match the elevation of the existing secondary sedimentation basins. A new effluent pipe was constructed that connects to the new effluent channel that feed the filter basin.

5. Replace existing effluent sand filters with cloth disk filters. The existing effluent sand filters were not hydraulically adequate to treat the newly projected plant flow. New cloth disk filters added to the existing filter structures with minimal modification. However, the existing underground piping between the secondary sedimentation basins are not able to handle the higher flows. Therefore, the pipes have been abandoned and an open flow channel installed between these structures that will eliminate the hydraulic problem. The existing structure of the filters was able to be modified to house three (3) new cloth filters in the spaced that housed one sand filter. The process instrumentation and SCADA hardware and software was updated.

6. Construct a new ultraviolet disinfection station. The existing closed UV chambers in the UV building are not adequate to handle the anticipated flows at build-out. Therefore, the concrete structure that housed the south sand filter was modified to house a new horizontal UV. A new effluent flow meter has been installed in the piping that feeds the existing effluent pump station. The process instrumentation and SCADA hardware and software was updated.

IMPLEMENTATION OF THE PLANNED EXPANSION

The planned improvements has been completed under an APP amendment approval. The District selected a qualified contractor as Construction Manager at Risk through requesting and evaluating Statements of Qualifications.

The District has worked closely with the selected contractor to complete the construction of the expansion in a sequence that assured continued operation of existing processes without violating any reuse and/or discharge standards. In general, construction occurred in the following sequence:

- Construct a new headworks and demolish the existing headworks.
- Begin construction of the third process train, and make modifications to existing basin piping and equipment.
- Establish a means of using two of the existing blowers with piping while installing new blowers and piping.
- Add new diffusers to the third train and transfer liquid between the two existing trains while replacing and modifying diffusers in the existing trains.
- Construct the new VFA basin.

- Remove the north sand filter equipment, modify concrete and install three new disk filters.
- Remove existing flow splitter box and install new piping between the new flow splitter box and the three existing secondary sedimentation basins.
- Remove the south sand filter equipment, modify basin concrete and install new UV disinfection equipment.
- Remove the middle sand filter equipment and fill basin with sand and concrete to create a storage and work area between the new filters and the new UV equipment.
- Install new RAS pumps in the RAS/WAS pump station.
- Construct the concrete flow channel between the secondary sedimentation basins and the modified filter basins.
- Convert the existing VFA basin into a secondary sedimentation basin.

Figure 3 shows the site plan of the new improvements that will expand this facility to its build-out capacity of 3.5 MGD. Figures 4 and 5 are the process flow diagrams of the expanded facility.

SOURCES OF POLLUTION DURING CONSTRUCTION

It was expected, based upon past construction experience at the construction site, that there is a high probability that groundwater would be encountered during construction. The Facility sets on the bank of American Gulch. Intermittent stream flows impact groundwater infiltration at the site. To mitigate any potential contamination of the groundwater well points were installed at critical locations and the groundwater pumped to the headworks of the facility.

Care was be taken to keep surface waters during summer and winter storms contained on site. In addition, the contractor and facility staff worked with each other to control and contain and mitigate the impacts of any spills of partially treated wastewater that could occur during construction.

ANTICIPATED CONSTRUCTION COSTS AND FINANCING

Actual project construction costs were as follows:

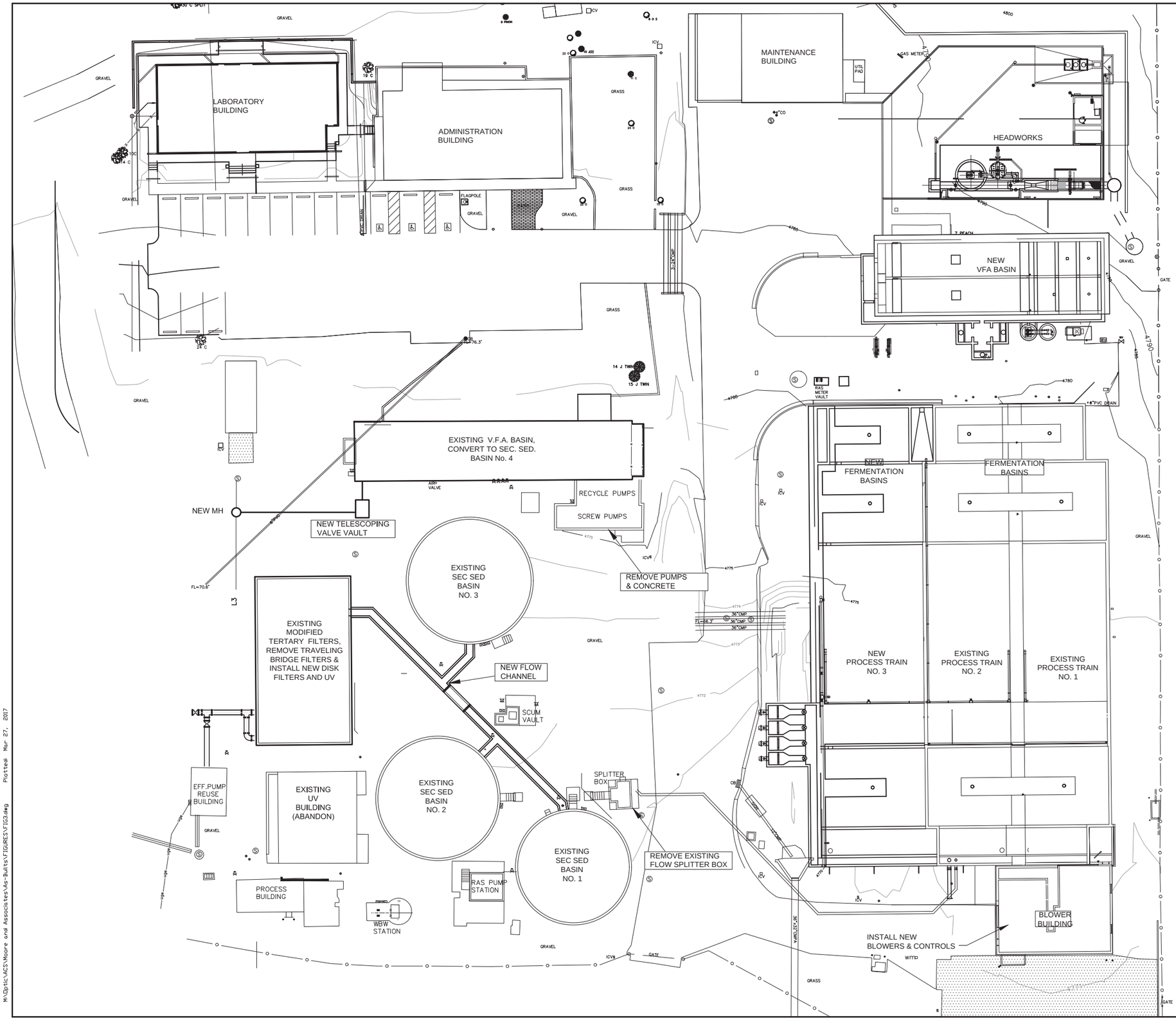
New Headworks - 2,000,000

Third Bardenpho Train with Blowers- $6,000,000

New VFA Basin - $3,000,000

New Filters, UV Disinfection and Secondary Sedimentation Basin - $4,000,000

The District had these funds available and did not need to borrow or bond further work. In addition, the District has adopted user fees that cover the daily operation and maintenance costs. Further rate increases will be used to cover future cost increases.



M:\Optic\ACS\Moore and Associates\As-Builts\FIGURES\FIG3.dwg Plotted: Mar 27, 2017

MOORE AND ASSOCIATES, INC.
SANITARY * CIVIL * SURVEYORS
305 MONARCH COVE CEDAR PARK, TX 78613
(928) 713-3849

FIGURE 3

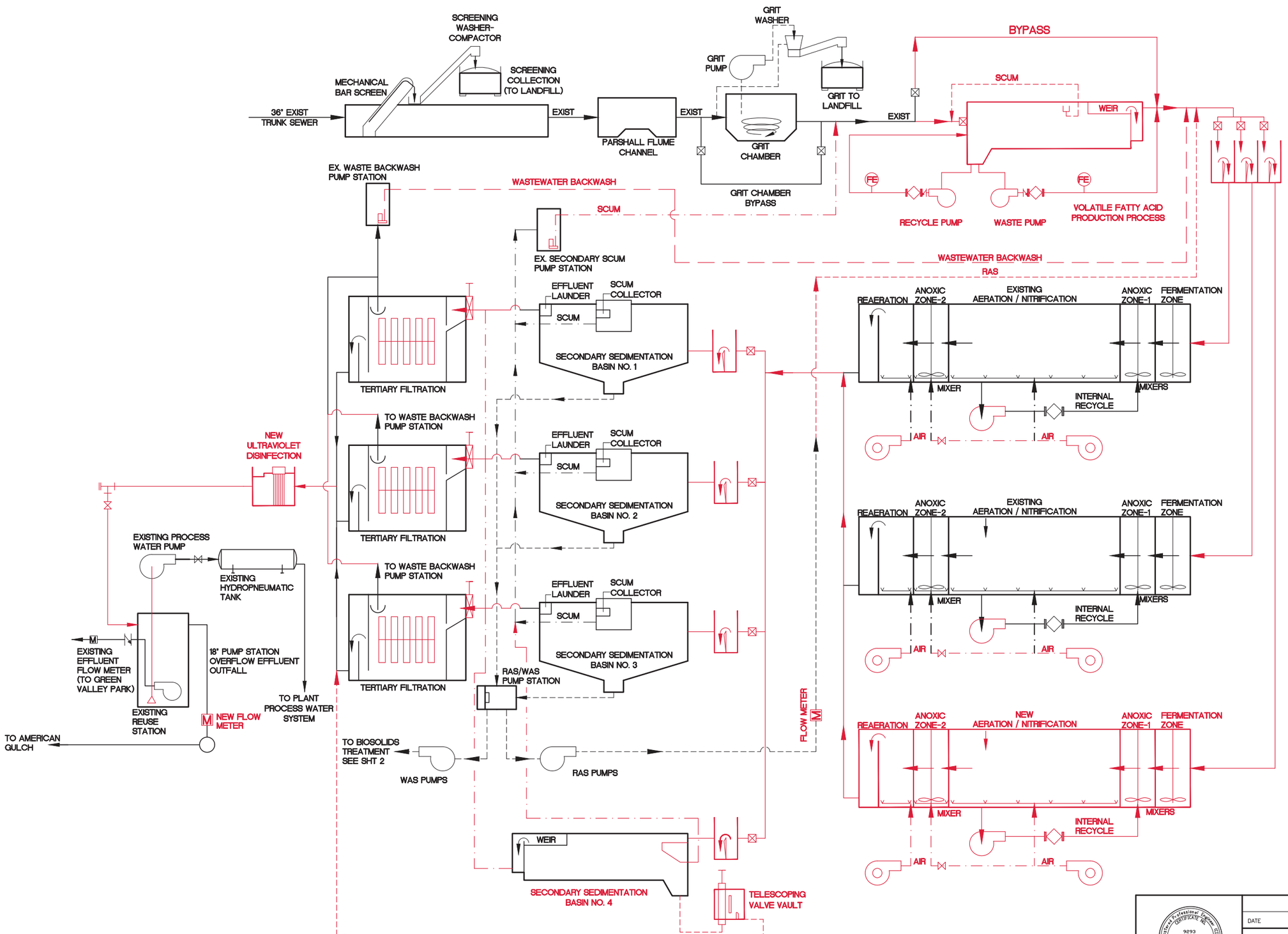
SITE PLAN

NORTHERN GILA COUNTY
SANITARY DISTRICT
AMERICAN GULCH
WASTEWATER RECLAMATION
AND REUSE FACILITY
PAYSON, ARIZONA

Registered Professional Engineer
CERTIFICATE NO.
9293
TERRY L. MOORE
CIVIL
Signed
ARIZONA, U.S.A.

EXPIRES 9-30-18

REVISIONS			JOB NO.	
DATE	NO.	DESCRIPTION	DRAWN MLH	DESIGN TLM
			CHECKED TLM	APPROVED TLM
			DATE: DEC 2015	
			SHEET OF	
			DWG. NO.	



MOORE AND ASSOCIATES, INC.
SANITARY * CIVIL * SURVEYORS
305 MONARCH COVE CEDAR PARK, TX 78613
(928) 713-3849

FIGURE 4

PROCESS FLOW DIAGRAM

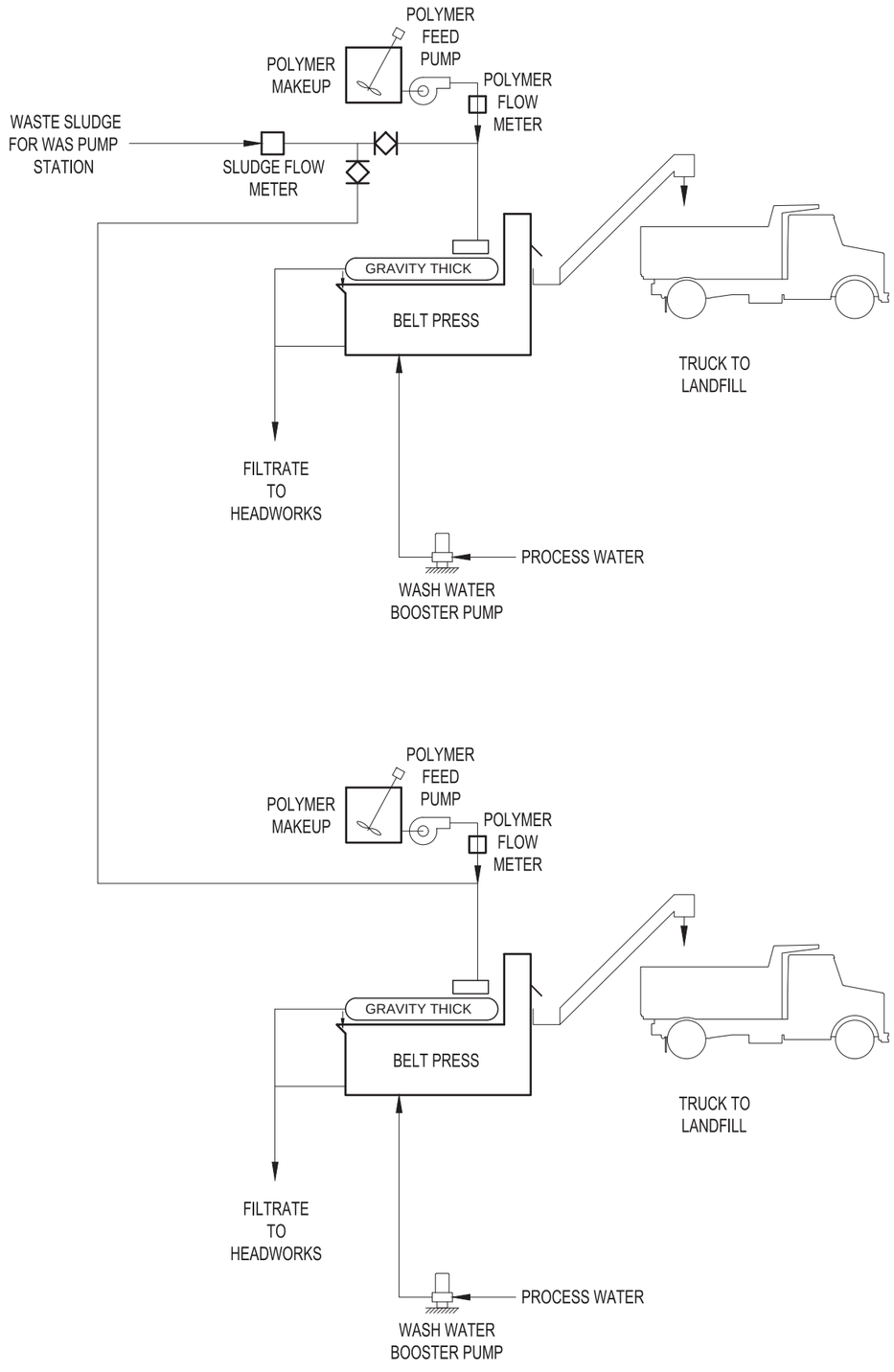
NORTHERN GILA COUNTY SANITARY DISTRICT
AMERICAN GULCH WASTEWATER RECLAMATION AND REUSE FACILITY
PAYSON, ARIZONA

REVISIONS	
DATE	DESCRIPTION

JOB NO.	
DRAWN MLH	DESIGN TLM
CHECKED TLM	APPROVED TLM
DATE: DEC 2015	
SHEET OF	
DWG. NO.	

Registered Professional Engineer CERTIFICATE NO. 9293 TERRY LEROY MOORE Date Signed ARIZONA, U.S.A. EXPIRES 9-30-16

M:\Optic\MCS\Moore and Associates\Ad-Butts\FIGURES\Fig4.dwg Plotted: Mar 27, 2017



MOORE AND ASSOCIATES, INC.
SANITARY • CIVIL • SURVEYORS
305 MONARCH COVE CEDAR PARK, TX 78613
(928) 713-3849

FIGURE 5

BIOSOLIDS
PROCESS FLOW DIAGRAM

NORTHERN GILA COUNTY
SANITARY DISTRICT
AMERICAN GULCH
WASTEWATER RECLAMATION
AND REUSE FACILITY
PAYSON, ARIZONA

EXPIRES 9-30-18

REVISIONS			JOB NO.	
DATE	NO.	DESCRIPTION	DRAWN MLH	DESIGN TLM
			CHECKED TLM	APPROVED TLM
			DATE: DEC 2015	
			SHEET OF	
			DWG. NO.	

M:\Optic\ACS\Moore and Associates\As-Builts\FIGURES\FIG5.dwg Plotted: Mar 27, 2017

PROJECT IMPACTS

Impact of Effluent on Surface and Groundwater

The effluent quality will remain close to what it was before the improvements. Phosphorous removal should be more stable due to better VFA production. Total nitrogen should remain at levels currently achieved. Regardless, a mixing zone at the confluence of American Gulch and the East Verde River will still be necessary to meet the stream standards of the Verde River.

Southwest Ground-Water Consultants, Inc. has evaluated the impact of the discharge of effluent at the Green Valley Lake and at the point of discharge to American Gulch (AZPDES outfall). In both locations groundwater quality down gradient from Green Valley Lake and the American Gulch outfall show no indication of groundwater contamination from effluent and other sources. Based upon current available information, there does not appear to be a potential source of contamination in the vadose zone that could be affected mounding beneath the discharge areas.

Impact of Project on Community

Over the last few years since the Green Valley Park project was completed, it is apparent that the reuse of effluent from the American Gulch Water Reclamation and Reuse Facility has enriched the lives of the Payson residents as well as visitors to the area. Reuse of effluent on local golf courses has not only conserved the Towns groundwater resources but has aided in improving the community with green belts that improve the community.

INDUSTRIAL PRETREATMENT PROGRAM

Industry in Payson is light o very light resulting in wastewater flows that are domestic in nature. Any future industry that will requie pretreatment will require the District to develop a Pretreatment Program prior to accepting wastewater from such industries.

NONPOINT SOURCE ISSUES

The District has implemented programs and procedures that are designed to eliminate the impact of nonpoint sources such as storm and snow melt runoff. The District collection system is not a combined system. Therefore, stormwater flows that exist are from system infiltration and inflow. Runoff from the surrounding area is directed through flow channels around the Facility site.

Chemicals, oils and lubricants used in the operation and maintenance of the Facility are properly stored in appropriate containers and stored in buildings or under canopies. Written safety procedures for handling chemicals, oils and lubricants have been developed for reference and used in safety training.

APPENDIX A

208 AMENDMENT

CHECKLIST

APPENDIX A - CAG 208 PLAN AMENDMENT

NORTHERN GILA COUNTY SANITARY DISTRICT - 208 AMENDMENT CHECKLIST

Requirement	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
AUTHORITY Proposed Designated Management Agency (DMA) shall self-certify that it has the authorities required by Section 208(c)(2) of the Clean Water Act to implement the plan for its planning and service area. Self-certification shall be in the form of a legal opinion by the DMA or entity attorney.	The Northern Gila County Sanitary District self-certifies that it has the authorities required by Section 208(c)(2) of the Clean Water Act to implement the facility expansion proposed by the District.	Appendix B
20-YEAR NEEDS Clearly describe the existing wastewater treatment (WWT) facilities: • Describe existing WWT facilities	The existing WWT facilities have been designed to treat 2.2 MGD of wastewater. The Facility includes the following unit processes and unit operations: A headworks that includes an automatic bar screen, a Parshall flume flow meter and grit removal, a volatile fatty acid basin with recycle and transfer pumps, two Modified Bardenpho trains designed to remove nitrogen and phosphorous biologically, aeration blowers, three secondary sedimentation basins, a return activated sludge pump station, a waste sludge pump station, three traveling bridge sand filters, in-line ultraviolet disinfection units, a biosolids dewatering station and an effluent pump station.	6,7,8
• Show the District service area boundary and identify any private utilities within the District service area	Figure 1 shows the District service area boundary. The Tonto Apache Indian Reservation on the south side of the District has its own WWT plant.	Figure 1, 2
• Provide POPTAC population estimates over 20 year period	The latest CAG population projections approved by POPTAC were used to estimate 20-year and build out projections for population.	Table 1
• Provide wastewater flow estimates for the 20-year planning period	Tetra Tech, Inc, the Districts' local consultant, has projected the necessary capacity needed at build out (20 years) is 3.15 MGD. The District has increased that to 3.5 MGD to cover future unknowns.	3

APPENDIX A - CAG 208 PLAN AMENDMENT

NORTHERN GILA COUNTY SANITARY DISTRICT - 208 AMENDMENT CHECKLIST

Requirements	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
• Illustrate the WWT planning and service area	Figure 1 shows the District service area. Figure 2 shows the Town of Payson Land Use Map	Figure 1, 2
• Describe the type and capacity of the recommended WWT Facility	The District presently owns and operates a 2.2 MGD WWT Facility. This Facility will be expanded to 3.5 MGD and will continue to employ the Modified Bardenpho Process. The existing headworks will be replaced with a new and larger headworks. The existing VFA basin will be converted to a secondary sedimentation basin. A new VFA basin will be constructed between the headworks and the Modified Bardenpho basins. A Modified Bardenpho train will be constructed parallel to the exisitng Bardenpho trains. The existing traveling sand filter and ultraviolet disinfection process will be replaced by new cloth disc filters and a larger ultraviolet disinfection process.	6, 7, 8, 9, 10
• Identify water quality problems, consider alternative control measures, and recommend solution for implementation	No water quality problems are anticipated.	11, 12
• If private WWT utilities with certificated areas are within the proposed service area, define who (municipal or private utility) serves what area and when. Identify whose sewer lines can be approved in what areas and when?	No private WWT utilities are located within the District boundary. The Tonto Apache Tribe owns and operates a WWT Plant that is within the District boundary. However, they are a sovereign tribe and are not subject to the requirements of the 208 Plan.	2, 3
• Describe method of effluent disposal and reuse sites (if appropriate)	Effluent discharged to American Gulch during seasonal rains and snow melt that causes high infiltration flow to the WWT Facility. At all other times the effluent is pumped to the: • Payson Golf Course • Pioneer Cemetery • Green Valley Lake and Park • Payson High School Ball Fields • Chaparral Pines and Rim Golf Club golf courses.	8

APPENDIX A - CAG 208 PLAN AMENDMENT

NORTHERN GILA COUNTY SANITARY DISTRICT - 208 AMENDMENT CHECKLIST

Requirements	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
• If Sanitary Districts are within planning or service area, describe who serves the Sanitary District and when	The Northern Gila County Sanitary District is the only provider of wastewater service in the Payson, AZ area. Figure 1 shows the District service area. Figure 2 shows the Town of Payson Land Use Map. The Tonto Apache Indian Tribe owns and operates a WWT Plant on the reservation that is within the District boundary.	Figure 1, 2
• Describe ownership of land proposed for plant site and reuse areas.	The District owns the plant site. The Town of Payson owns Green Valley Park. The Payson School District owns the high school ball fields. All other reuse sites are privately owned.	1, 8
• Address time frames in the development of the treatment works.	The expansion of the American Gulch Water Reclamation and Reuse facility has already been completed.	10, 11
• Address financial constraints in the development of the treatment works	The District has no anticipated financial constraints for the development of the treatment works. It has been accumulating impact fees for years from past developers and used these funds to complete this project.	11
• Describe how discharges will comply with EPA municipal and industrial stormwater discharge regulations (Section 405, CWA)	The District does not have a collection system that combines domestic and stormwater flows. They do have infiltration problems during summer monsoon rains and winter snow melt.	11
• Describe how open areas and recreational opportunities will result from improved water quality and how those will be used.	Open areas and recreational activities already exist and effluent reuse enhances the use of these open belt areas. Green Valley Lake system contains treated wastewater and is occasionally stocked with fish to enhance local recreation.	12
• Describe potential use of land associated with treatment works and increased access to water-based recreation, if applicable.	The land used for the WWT Facility is dedicated specifically for that purpose. There are existing water based recreational facilities at Green Valley Park that reuses District effluent.	1,8

APPENDIX A - CAG 208 PLAN AMENDMENT

NORTHERN GILA COUNTY SANITARY DISTRICT - 208 AMENDMENT CHECKLIST

Requirements	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
REGULATIONS • Describe types of permits needed, including NPDES, APP and reuse	The District presently has an AZPDES Permit that covers this facility. They have also acquired an APP for this project. Reuse is covered under the APP.	5, 6
• Describe restrictions on NPDES permits, if needed, for discharge and sludge removal	The existing AZPDES contains a provision for meeting stream standards at the Verde River by applying a variance with a mixing zone at the confluence of American Gulch and the East Verde River.	6
• Provide documentation of communication with ADEQ Permitting Section 30 to 60 days prior to public hearing regarding the need for specific permits.	The District has been issued an APP for this project. It is also covered by an AZPDES Permit issued by ADEQ.	5, 6
• Describe pretreatment requirements and method of adherence to requirements (Section 208 (b)(2)(D0, CWA.	The District services the area zoned "Industrial" in the Town of Payson Land Use Map. However, industry in Payson is light to very light resulting in wastewater flows that are domestic in nature. Iindustry that requires pretreatment in the future will require the District to develop a Pretreatment Ordinance prior to connecting to the District sewer.	12
• Identify, if appropriate, specific pollutants that will be produced from excavation and procedures that will protect ground and surface water quality (Section 208(b)(2)(K) and Section 304, (CWA).	Sediments from construction excavation will be contained on the plant site by the contractor and the District. No pollutants will be discharged or will reach the groundwater.	11
• Describe alternatives and recommendation in the disposition of sludge generated (Section 405 CWA).	The District will dewater their sludge and has a contract specialist transport the material to the Butterfield Landfill in Maricopa County.	2, 8
• Define any nonpoint source issues related to the proposed and outline procedures to control them	There are no nonpoint source issues related to this project.	12

APPENDIX A - CAG 208 PLAN AMENDMENT

NORTHERN GILA COUNTY SANITARY DISTRICT - 208 AMENDMENT CHECKLIST

Requirements	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
• Describe process to handle all mining runoff, orphan sites and underground pollutants, if applicable	Not applicable	N/A
• If mining related, define where collection of pollutants has occurred, what procedures are going to be initiated to contain contaminated areas.	Not Applicable	N/A
• If mining related, define what specialized procedures will be initiated for orphan sites, if applicable	Not Applicable	N/A
CONSTRUCTION • Define construction priorities and time schedules for initiation and completion	The newly constructed facilities were constructed in a manner and time frame that assured that the existing plant could be operated with minimum interference.	10
• Identify agencies that will construct, operate and maintain the facilities and otherwise carry out the plan	The Northern Gila County Sanitary District is responsible for construction, operation and maintenance of the Facility.	1, 2, 6, 11
• Identify construction activity-related sources of pollution and set forth procedures and methods to control, to the extent feasible, such sources	Construction related pollution includes on site storm water and potential of partial spills through construction accidents. District has procedures for handling partial spills. Storm water will be contained.	11
FINANCING AND OTHER MEASURES NECESSARY TO CARRY OUT THE PLAN • If plan proposes to take over certificated private utilities, describe how, when financing will be managed.	There are no known private utilities within the District boundary.	2

APPENDIX A - CAG 208 PLAN AMENDMENT

NORTHERN GILA COUNTY SANITARY DISTRICT - 208 AMENDMENT CHECKLIST

Requirements	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
• Describe any significant measures necessary to carry out the plan, e.g., institutional, financial, economic, etc.	There are no significant measures necessary to carry out this plan.	11
• Describe the proposed method(s) of community financing.	The District has used funds accumulated from impact fees to finance this project	11
• Provide financial information to assure DMA has financial capability to operate and maintain wastewater system over its useful life.	.The District has set sewer rates that match the budget for operation and maintenance of this facility. Future rate increases will be used to cover future cost increases.	11
• Provide the time line outlining period of time necessary for carrying out plan implementation.	The District has already finished the construction of this project.	10, 11
• Provide financial information indicating the method and measures necessary to achieve project financing (Section 201 CWA or Section 604 may apply).	The District has used funds accumulated from impact fees to finance this project	11
IMPLEMENTABILITY • Describe impacts and implementability of plan.	Community impacts includes continued improvement of quality of life with green belts and effluent reuse.	12
• Describe impacts on existing wastewater (WW) facilities, e.g., Sanitary district, infrastructure facilities and certificated areas.	The existing facility will be improved through correcting past hydraulic problems and improved maintenance options.	8, 9, 10

APPENDIX A - CAG 208 PLAN AMENDMENT

NORTHERN GILA COUNTY SANITARY DISTRICT - 208 AMENDMENT CHECKLIST

Requirements	Provide Brief Summary On How Requirements Are Addressed	Addressed On Page
• Describe how and when existing package plants will be connected to a regional system	There are no package plants in the District	2
• Describe the impact on communities and businesses affected by the plan.	The expansion of this facility will assure that Town growth and business development can occur that will	12
• If a municipal WWT system is proposed, describe how WWT service will be provided until the municipal system is completed: i.e., will package plants and septic systems be allowed and under what circumstances.	The project is an expansion of an existing WWT Facility. The Facility was operated by District staff while construction was underway. No violations of the effluent quality occurred during construction.	11
PUBLIC PARTICIPATION • Submit copy of mailing list used to notify the public of the public hearing on the 208 Amendment (40 CFR, Chapter 1, part 25.5)	All public notices will be satisfied through CAG	
• List location where documents are available for review at least 30 days before public hearing.	All public notices will be satisfied through CAG	
• Submit copy of the public notice of the public hearing as well as an official affidavit of publication from the area newspaper. Clearly show the announcement appeared in the newspaper at least 45 days before the hearing.	All public notices will be satisfied through CAG	
• Submit affidavit of publication for official newspaper publication.	All public notices will be satisfied through CAG	
• Submit responsiveness summary for public hearing.	All public notices will be satisfied through CAG	

APPENDIX B

NORTHERN GILA COUNTY

SANITARY DISTRICT

SELF-CERTIFICATION

LETTER

HARPER LAW OFFICES, PC

Michael J. Harper
Direct Dial
Payson (928) 472-3836
Mesa (480) 664-8991

April 25, 2017

Andrea Robles, Interim Executive Director
Central Arizona Governments
1075 South Idaho Road, Suite #300
Apache Junction, Arizona 85219

Re: Northern Gila County Sanitary District 208 Plan Amendment - Self-Certification

Dear Ms. Robles:

As legal counsel for the Northern Gila County Sanitary District in Payson, Arizona, I hereby certify, in connection with wastewater collection and treatment facilities that serve homes, businesses, and industries within the jurisdictional limits of the Northern Gila County Sanitary District (which wastewater facilities are referred to in this letter as "Subject Facilities") and pursuant to the USEPA Clean Water Act section 208(c)(2) [33 U.S.C. § 1288(c)(2)], that the District is authorized by law:

A. to carry out appropriate portions of the Central Arizona Governments' Areawide Water Quality Management Plan (the "208 Plan") developed under the Clean Water Act section 208, subsection (b) as an existing Designated Management Agency;
B. to manage effectively the Subject Facilities and any other related facilities serving such area in conformance with the 208 Plan;
C. directly, or by contract, to design and construct the Subject Facilities, and to operate and maintain new and existing works as required by the 208 Plan;
D. to accept and utilize grants, or other funds from any source (including short-term and long-term debt) for wastewater treatment management purposes;

E. to raise revenues, including assessments of wastewater treatment charges;
F. to refuse to accept any wastes from a service area discharger that does not comply with any provisions of the 208 Plan.

Please let me know if you need additional information in connection with this self-certification.

Sincerely,

Michael J. Harper

APPENDIX C

LETTERS OF SUPPORT

Tommie C. Martin, District I
610 E. Hwy 260, Payson, 85547
(928) 402-8753
(800) 304-4452, ext.7100
tmartin@gilacountyaz.gov

Tim R. Humphrey, District II
(928) 425-3231
thumphrey@gilacountyaz.gov

Woody Cline, District III
(928) 402-4401
wcline@gilacountyaz.gov

GILA COUNTY
BOARD OF SUPERVISORS
1400 E. Ash Street
Globe, Arizona 85501

John Nelson,
County Manager
(928) 402-4257
jnelson@gilacountyaz.gov

Marian Sheppard,
Clerk of the Board of Supervisors
(928) 402-8757
msheppard@gilacountyaz.gov

May 11, 2017

Andrea Robles, Interim Executive Director
Central Arizona Governments
1075 South Idaho Rd., Suite #300
Apache Junction, AZ 85219

Re: Letter of support for American Gulch Water Reclamation and Reuse Facility Expansion-CAG 208 Plan Amendment

Dear Andrea;

Gila County wishes to express its ongoing support for our Northern Gila County Sanitary District (NGCSD) friends. NCGSD has an exemplary treatment plant and water reclamation facility and has and continues to make a major contribution to the water resources of Northern Gila County. They are a model of up to date treatment and operational methods and zero leakage sewer collection system installation and operation.

We fully support the expansion of the NCGSD facility which will accommodate and allow the greater Payson area to grow and prosper in the years to come.

Sincerely,

Tommie C Martin

Tommie C. Martin
District 1 Gila County Supervisor

Town of Payson
Town Manager's Office
303 N. Beeline Highway
Payson, Arizona 85541-4306

Town Manager (928) 472-5041
Town Hall (928) 474-5242
Fax (928) 474-4610

May 4, 2017

Ms. Andrea Robles, Interim Executive Director
Central Arizona Governments
1075 S. Idaho Road, Ste. 300
Apache Junction, AZ 85219

RE: 208 Amendment – Northern Gila County Sanitary District

Dear Ms. Robles,

The Town of Payson has received and reviewed the Draft Northern Gila County Sanitary District "American Gulch Water Reclamation and Reuse Facility Expansion" report prepared for the CAG 208 Plan Amendment. The Town is in agreement with the report and supports the approval of the 208 Amendment.

The Northern Gila County Sanitary District is an excellent example of how a waste water treatment facility should be operated.

Please contact me if you have any questions.

Sincerely,

LaRon G. Garrett, P.E.
Town Manager

cc: Moore and Associates, Inc.

Town of
STAR VALLEY
Arizona

3675 E. Highway 260, Star Valley, AZ 85541
www.starvalleyaz.com
928-472-7752

May 3, 2017

Andrea Robles, Interim Executive Director
Central Arizona Governments
1075 South Idaho Road, Suite #300
Apache Junction, AZ 85219

Re: Northern Gila County Sanitary District – CAG 208 Plan Amendment

Dear Ms. Robles,

On behalf of the Town of Star Valley, located to the east of the District, I am pleased to submit this letter of support for the Northern Gila County Sanitary District's American Gulch Water Reclamation and Reuse Facility Expansion – CAG 208 Plan Amendment. We urge Central Arizona Governments to approve the CAG 208 Plan Amendment so that it may be sent to the United States Environmental Protection Agency for approval in order to complete the requirements of the Arizona Department of Environmental Quality.

As you know, the American Gulch Water Reclamation and Reuse Facility operated by the District is a critical facility that treats wastewater generated from the community of Payson and the subdivision of Mesa del Caballo. The primary goal of the District is to reclaim and reuse as much wastewater effluent as possible, working in cooperation with the Town of Payson to allow effluent to be recharged to the groundwater through the lakes at Green Valley Park, Payson Golf Course, Payson High School Ball Fields, Chaparral Pines Golf Club, Rim Golf Club, and The Pioneer Cemetery.

The District has our full support in moving this project forward as quickly as possible, and we urge Central Arizona Governments to approve the CAG 208 Plan Amendment to facilitate this action. We appreciate your diligent efforts related to this project, and please don't hesitate to contact me if you would like to discuss our perspective on this matter.

Respectfully,

TOWN OF STAR VALLEY

Timothy W. Grier, Town Manager/Town Attorney

Cc: file

APPENDIX D

RECORD OF PUBLIC PARTICIPATION

APPENDIX E

COMMUNICATIONS