

CITY OF AVON PARK

Highlands County, Florida CITY COUNCIL SPECIAL MEETING August 15, 2022, 6:30 p.m. Avon Park Community Center, 310 W. Main Street, Avon Park, FL

This meeting will be held in person at the above address.

You are welcome to attend via ZOOM, if you wish. To enter this meeting, you must use the ZOOM app and use code 699 454 4458 No Password needed

A. CALL TO ORDER:

- 1. Invocation
- 2. Pledge of Allegiance
- 3. Roll Call

B. SPECIAL BUSINESS

- 4. Presentation/Discussion of the below noted Draft Plans Kimley-Horn, Jamison Tondreault
 - DRAFT- Avon Park Water Master Utility Plan
 - DRAFT Avon Park Wastewater Master Utility Plan
 - DRAFT Avon Park WWTF Facility Plan

C. ADJOURN

5. The next City Council Regular Meeting is scheduled for Monday, August 22, 2022, at 6:00 p.m. at the Avon Park Community Center

Any person who might wish to appeal any decision made by the City Council of the City of Avon Park, Highlands County, Florida, in public hearing or meeting is hereby advised that he/she will need a record of the proceedings, and for such purpose, he/she may need to ensure that a verbatim record of the proceedings is made which will include the testimony and evidence upon which such appeal is to be based. Any person with disabilities requiring accommodations in order to participate should contact the City Manager prior to the meeting.

Agenda Item Summary

Date of Action: August 15, 2022

Subject: Presentation/Discussion of the below noted Draft Plans from Kimley-Horn

Item No.: B-4

Placed on Agenda by: Kimley-Horn, Jamison Tondreault Staff Review:

Attorney Review:

Recommended Motion(s):

Documentation:

- DRAFT- Avon Park Water Master Utility Plan
- DRAFT Avon Park Wastewater Master Utility Plan
- DRAFT Avon Park WWTF Facility Plan

Background:



CITY OF AVON PARK

Water Master Utility Plan

Prepared for



Prepared by

Kimley » Horn



CITY OF AVON PARK

Water Master Utility Plan

THIS IS TO CERTIFY THAT THE ENCLOSED ENGINEERING CALCULATIONS WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

Jamison R. Tondreault, PE Florida Registration Number 84396 Kimley-Horn Registry No. 696

Prepared for

Date:





Prepared by

Kimley » Horn



EXECUTIVE SUMMARY

The City of Avon Park is anticipating significant growth in the Avon Park area over the next 20 years. This growth will provide the City with the opportunity to expand the existing utility systems to provide potable water to new customers. In response to this anticipated future demand, the City is planning to improve and expand the utility infrastructure to adequately meet future demands.

This master plan and accompanying hydraulic modeling was assembled to assist the City in identifying and selecting capital improvement projects to efficiently and cost-effectively meet the demands of current and future residents.

For future population projections, growth was broken down and analyzed in three broad classifications: 1) Population growth within the areas currently connected to City utilities (no physical expansion, i.e. infill), 2) Existing population outside the City's current service area that can be added to the City's utility system making new connections or by physically expanding the system, and 3) Population growth occurring in new developments planned surrounding the City.

Water System Analysis:

The City currently owns and operates three water treatment plants in the City. All three of the water treatment plants are operating within their respective FDEP permitted capacities based on maximum daily flows.

A base hydraulic model was developed and calibrated for the City's existing water systems. Calibration of the model was done using fire flow data recorded in the field and pressure loggers. The existing system was modeled and calibrated using present day average daily demands.

The results of the base model were used to identify capital improvement projects (i.e. – water main extensions, water main looping, and water treatment plant expansions) that would improve the hydraulic performance of the City's existing, 5-year, 10-year, and 20-year water system. These improvements were added to the model and simulations were run to analyze the effectiveness of the improvement.

Capital Improvements:

Based on the modeling, field observations, and discussions with City staff, a comprehensive list of capital improvements was developed for implementation over the next 20 years. The list includes items that are hydraulically necessary, service and reliability upgrades, and improvements to aging infrastructure. That list includes a planning level cost estimate for budgeting purposes. The list consists of major water projects and is provided for guidance to assist the City in developing a sustainable capital improvement plan.



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LIST OF ACRONYMS

| AADF | Annual Average Daily Flow |
|--------|---|
| AAFF | Average Available Fire Flow |
| AWS | Alternative Water Supply |
| BEBR | Bureau of Economic and Business Research |
| CIP | Cast Iron Pipe |
| DIP | Ductile Iron Pipe |
| DMR | Discharge Monitoring Report |
| FAC | Florida Administrative Code |
| FDEP | Florida Department of Environmental Protection |
| FLUM | Future Land Use Map |
| fps | Feet Per Second |
| Ft | Feet |
| GIS | Geographic Information System |
| gpcd | Gallons per Capita Day |
| GPD | Gallons per Day |
| gpm | Gallons per Minutes |
| GST | Ground Storage Tank |
| hp | Horsepower |
| HSP | High Service Pump(s) |
| HSPS | High Service Pump Station(s) |
| MG | Million Gallons |
| MGD | Million Gallons per Day |
| MOR | Monthly Operating Report |
| psi | Pounds per square inch |
| PVC | Polyvinyl Chloride |
| PWS | Potable Water System |
| SWFWMD | Southwest Florida Water Management District |
| VFD | Variable Frequency Drive |
| VTP | Vertical Turbine Pump |
| WMD | Water Management District |
| WRAMS | Water Resources Assessment and Management Study |
| WTP | Water Treatment Plant |
| WUP | Water Use Permit |
| WWTF | Wastewater Treatment Facility |



INTRODUCTION

Background

The City of Avon Park is anticipating significant population growth over the next 20 years. This growth will increase the potable water demands within the City's utility service area. In response to the anticipated future demands, the City will need to improve and expand the existing utility infrastructure to adequately meet future demands. This master plan and accompanying hydraulic modeling was assembled to assist the City in identifying and selecting capital improvement projects to meet the demands of current and future residents efficiently and cost-effectively.

Scope and Objectives

The primary objective of this utility master plan is to assess the performance of the existing potable water system currently owned and operated by the City of Avon Park and plan for system improvements/expansions that are needed to meet the anticipated 5-year, 10-year, and 20-year demands. The Municipal Service Area and existing system are shown in Figure 1.

Water System Objectives:

- Develop hydraulic standards for City's water distribution system.
- Identify the capacity of the City's existing conveyance system.
- Develop potable water demand projections (5-year, 10-year, and 20-year)
- Gather existing system information and develop a master hydraulic model of the City's potable water system.
- Evaluate the water distribution system under present year conditions and for 5-year, 10-year, and 20-year growth projections.
- Identify necessary improvements within the water supply under the present year, 5-year, 10-year, and 20-year demand projections.





POPULATION GROWTH PROJECTIONS

Introduction

This section presents the methodology and analysis results of the flow projections within the City's water utility service area. The key element in evaluating the future demands on a utility system is population growth. Population projections provide the basis for the demands that will be placed on the utility infrastructure. Identifying, quantifying, and locating these demands allows for proper analysis and planning of capital improvements that can efficiently and cost-effectively be implemented to service existing and new customers. Increases in demands within the City's utility system are anticipated to occur in one of three ways:

- 1. Existing and Infill Demands growth within the areas currently served by the City where new connections will be made to the existing utility system. Infill demands were classified as unoccupied parcels located within 100 feet of existing utility infrastructure.
- 2. Expansion Demands increased demands from the physical expansion of the utility system to bring currently non-served customers onto the network. This expansion can be driven by new development where customers along the expansion route may also be served.
- 3. Known Future Developments increased demands resulting from new developments identified by the City that are not currently served by existing utilities.

Methodology for Estimating Demands

The water demands are linked to population and the City's future land use data. The City's service territory was categorized into three (3) major land use categories:

- 1. Residential
- 2. Commercial and Industrial
- 3. Known Future Developments

A specific demand calculation methodology was applied for each land use category. The following is a discussion of each methodology.

Residential – The population projections for the City's service area are based on the *Small-Area Population Projection Methodology provided by Southwest Florida Water Management District (SWFWMD)* (2021). The following analysis was performed to determine the 5, 10, and 20-year population projections.

- 1. The population values for each parcel were obtained from the SWFWMD population projections GIS spatial data.
- 2. Population values were summarized for the years 2027 (5yr), 2032 (10yr), and 2042 (20yr) for each parcel.

Since water billing data was insufficient, to calculate the demand for 5, 10, and 20-years, the projected population for each parcel was divided by a value of 2.4 (Average persons in household per SWFWMD data) people per equivalent residential unit (ERU). Each ERU value for each parcel was then multiplied by 250 gpd/ERU, the City's current level of service standard for water and wastewater.

Projected Demand = [(Projected Population/2.4 people per ERU) x 250 (gpd/ERU)]

Commercial and Industrial – The City's water billing data was used as the basis for calculating future commercial and industrial water demands. One of two approaches below were used to calculate the demands for Commercial and Industrial properties.



- 1. Approach 1: Commercial and Industrial property with current billing data (Top 25 Water Users) The parcel specific annual average water demand from the City's billing information was used for Commercial properties with current billing data from the top 25 water users.
- 2. Approach 2: Commercial property (Outside of the Top 25 Water Users) Existing water demand was calculated for the smaller Commercial and Industrial properties by taking the average water billing data (outside of the 25 top water users) per square foot for commercial users and applying to the size of the parcel.

The 5, 10, and 20-year demands were calculated by multiplying the demand by the ratio of the 5,10or 20-year projected population growth as calculated using BEBR high population projections.

Known Future Developments – Future demands were based the number of residential units provided by the City or Developer. The future demands were then calculated by multiplying the City's current level of service by the projected development equivalent residential units (ERU). Known future developments were assumed to be built out by year 2034.

Summary of Projected Flows

The water demands for each category were calculated using one or more of the approaches discussed above. These estimates were based on best available data and are subject to change as population growth rates may vary from current future predictions and should be updated accordingly. The summary of the projected water flows is summarized in **Table 1** and **Figure 2** provides an aerial showing the general locations of the existing and future demands.

| Table 1: Summary of Total Projected Water Flows | | | | | | | | | |
|---|----------------------------------|------------------------------|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| | Demand | 2021 (Existing) ¹ | | 2027 5-Year | | 2032 10-Year | | 2042 20-Year | |
| | Demand | ERU ² | ADF (MGD) | ERU ² | ADF (MGD) | ERU ² | ADF (MGD) | ERU ² | ADF (MGD) |
| Existing | Existing Utility Service Area | 8,112 | 2.028 | 8,112 | 2.028 | 8,112 | 2.028 | 8,112 | 2.028 |
| | Residential | 0 | 0 | 996 | 0.249 | 1,864 | 0.466 | 3,756 | 0.939 |
| Infill | Commercial/Industrial | 0 | 0 | 160 | 0.040 | 308 | 0.077 | 644 | 0.161 |
| | Irrigation | 0 | 0 | 20 | 0.005 | 40 | 0.010 | 84 | 0.021 |
| Subtotal | | 8,112 | 2.028 | 9,228 | 2.322 | 10,324 | 2.581 | 12,596 | 3.149 |
| | Twin Lakes | 0 | 0 | 177 | 0.044 | 325 | 0.081 | 385 | 0.096 |
| Future | Avon Manor | 0 | 0 | 115 | 0.028 | 211 | 0.052 | 250 | 0.062 |
| Development | Avon Park Apartments | 0 | 0 | 37 | 0.009 | 67 | 0.016 | 80 | 0.020 |
| | Lake Lotela Development | 0 | 0 | 9 | 0.002 | 15 | 0.004 | 20 | 0.005 |
| | Subtotal | 8,112 | 2.028 | 338 | 0.083 | 618 | 0.153 | 735 | 0.183 |
| | Total | 8,112 | 2.028 | 9,566 | 2.405 | 10,942 | 2.734 | 13,331 | 3.332 |

1. From Historical Monthly Operating Report (MOR) Data

2. Assumes 250 gpd/ERU

3. Assumes 2.4 People/ERU

Table 2 summarizes the total projected ADF from all 3 City WTPs combined based on the adjusted flow rates and current flow configuration and the percent of the combined WTP permitted capacity. WTP evaluation and improvements were not a part of this master plan.



| Table 2: WTP Projected Flows and Percent of WTP Permitted Capacity | | | | | | |
|--|------------------------|-----------------------|-------------------------------|--------------------------------|--------------------------------|--|
| | Permitted ADF (MGD) | Existing ADF (MGD) | 5-Year Projected ADF (MGD) | 10-Year Projected ADF (MGD) | 20-Year Projected ADF (MGD) | |
| WTP Contributing Flows | 7.5 | 2.03 (27%) | 2.41 (32%) | 2.74 (37%) | 3.33 (44%) | |





EXISTING WATER SYSTEM

Introduction

This section discusses the location, condition, and capacity of the existing potable water infrastructure owned and operated by the City. Also included in this section is the permitting status of the plants, well pump information, and high service pump information, and flow summaries from the WTPs.

Water Supply Permitting Agencies

Florida Department of Environmental Protection (FDEP)

The Florida Department of Environmental Protection is responsible for permitting the design and construction of new potable water supply systems that provide water to 25 or more people for at least 60 days each year or serves 15 or more service connections. Very small water systems that do not fit the above description are regulated by the Florida Department of Health and individual county health departments. The construction of water wells, both public and private, and the quantities of water that may be extracted, are regulated by the Water Management Districts.

According to the 2021 Monthly Operating Reports (MOR), the WTPs owned and operated by Avon Park are permitted for 7.5 MGD. See **Table 11** in the "**Flow Data**" section for the individual plant permitted capacities.

Southwest Florida Water Management District (SWFWMD)

SWFWMD is responsible for permitting and monitoring the quantities of groundwater pumped to potable water supply systems. The City of Avon Park has one water use permit (WUP) issued by SWFWMD. All active wells and facilities are permitted under this single WUP (Permit #6029.011). A total of 2,225,000 gpd annual average and 2,882,900 gpd peak monthly flows are permitted for this system. The average permitted flow from the wells will be exceeded by the 5-Year average projected flows (2.405 MGD) and more wells may be needed. **Table 3** below summarizes information regarding the City's water use permit issued by SWFWMD and the full permit is included in **Appendix A**.

According to the SWFWMD website, the wells owned and operated by the City fall within the "Southern Water Use Caution Area" (WUCA). Water Use Caution Areas are defined by the district as "a geographic region within the District which exhibits resource problems, or is predicted to exhibit resource problems, and for which special regulations are enacted by the Governing Board.

| Table 3: SWFWMD Water Use Permit | | | | | | |
|----------------------------------|-----------------------------|-------------------|-------|---------------|-----------------------|--|
| Permit Number | Permit Type | Issuing Agency | Wells | Date of Issue | Date of Expiration | |
| 6029.011 | Individual Water Use Permit | SWFWMD | 8 | 07/03/2014 | 11/25/2029 | |

Existing Water Distribution System

The City of Avon Park's water distribution system is identified by the FDEP as PWS-ID No. 6280049. According to the June 2021 Monthly Operating Reports (MOR), the total population served by the system is 18,561 with approximately 7,037 connections to the distribution system. The design treatment capacity of the system is 7.5 MGD. See **Appendix B** for the 2021 MORs.

The existing distribution system covers a large area measuring approximately 5 miles wide (east to west) and 7 mile long (north to south). The following **Table 4** is a summary of the existing distribution system pipe size (diameter) and lengths. The pipe materials include PVC, galvanized, asbestos-cement, and ductile iron pipe.



| Table 4: Existing Pipe Lengths | | | | | |
|--------------------------------|-----------------------------------|--|--|--|--|
| Pipe Size (diameter) | Approximate Length of Pipe (feet) | | | | |
| Undefined | 75,200 | | | | |
| 12 –inch | 105,100 | | | | |
| 10 – inch | 8,800 | | | | |
| 8 — inch | 148,100 | | | | |
| 6 — inch | 399,800 | | | | |
| 4- inch | 60,800 | | | | |
| 3 – inch | 27,300 | | | | |
| 2 or smaller - inch | 267,200 | | | | |

Existing Water Treatment and Storage Facilities

This section contains a brief discussion of the existing water treatment plants. The discussion includes information of the permitted capacities of the plants, information on the wells and well pumps based on the City's SWFWMD Water Use Permit (WUP), and information on the High Service Pumps (HSP) at each plant.

A capacity analysis of the wells at the City's WTPs was not part of this Master Plan, however it is recommended that a capacity analysis of the wells and water storage tanks be performed to ensure that the City can supply future demands on the system. The population of the City is projected to increase by a significant amount in the next 20 years and evaluation of the existing system will be necessary.

The City's water system is currently operating with three water treatment plants. Each of the three existing water treatment plants are discussed in the following sections.

Bell Street WTP

The Bell Street WTP is located along W Bell Street near the Avon Park Executive Airport. According to the 2021 MOR's, the plant produces an average of 1.26 MGD for the system. The maximum daily production for this plant in 2021 was 2.52 MGD. The FDEP permitted MDD capacity is 5.30 MGD. Ground water is pumped into the plant using three ground water wells. See **Table 5** for a summary of the wells and well pumps.

| Table 5: Bell Street WTP Wells | | | | | | | |
|--------------------------------|------------|----------------------|-----------------------|---------------------|---------------------------|---------------------------|--|
| Well Name | Dia. (in.) | Total Depth (ft.) | Casing Depth (ft.) | Pump Type | Pump Capacity (gpm) | Pump Capacity (MGD) | |
| Old Bell | 16 | 1,000 | 0 | Vertical Turbine | 1,813 | 2.61 | |
| New Bell | 18 | 1,352 | 431 | Vertical Turbine | 1,628 | 2.34 | |
| Bell #3 | 18 | - | - | Vertical Turbine | 1,308 | 1.88 | |

High service pumps provide final delivery of water into the distribution. The plant is equipped with four high service pumps. See **Table 6** below for a summary of the pump capacities.



| Table 6: Bell Street WTP Pump Capacities | | | | | |
|--|-------------|------------|----------------|--|--|
| Pump Name | Pump Type | Horsepower | Capacity (gpm) | | |
| VFD 1 | Centrifugal | 75 | 1,400 | | |
| VFD 2 | Centrifugal | 40 | 800 | | |
| VFD 3 | Centrifugal | 40 | 800 | | |
| VFD 4 | Centrifugal | 75 | 1,400 | | |

Glenwood Avenue WTP

The Glenwood Avenue WTP is located at the intersection of Shaw St and S Glenwood Ave, Avon Park. According to 2021 MOR's, the plant produces an average of 0.83 MGD. The maximum daily production for this plant in 2021 was 1.50 MGD. The FDEP permitted MDD capacity is 1.70 MGD. Ground water is pumped into the plant using three ground water wells. See **Table 7** for a summary of the well and well pump capacity.

| Table 7: Glenwood WTP Well | | | | | | |
|----------------------------|------------|----------------------|-----------------------|---------------------|---------------------------|---------------------------|
| Well Name | Dia. (in.) | Total Depth (ft.) | Casing Depth (ft.) | Pump Type | Pump Capacity (gpm) | Pump Capacity (MGD) |
| Glen | 8 | 1,100 | 0 | Vertical Turbine | 1,271 | 1.83 |
| Summit | 8 | 1,150 | 0 | Vertical Turbine | 1,211 | 1.74 |
| Glenwood #3 | 12 | - | - | Vertical Turbine | 1,782 | 2.57 |

High service pumps provide final delivery of water into the distribution. The plant is equipped with two high service pumps. See **Table 8** below for a summary of the pump capacities

| Table 8: Glenwood Avenue WTP Pump Capacities | | | | | |
|--|-------------|------------|----------------|--|--|
| Pump Name | Pump Type | Horsepower | Capacity (gpm) | | |
| HSP 1 | Centrifugal | 60 | 1,000 | | |
| HSP 2 | Centrifugal | 60 | 1,000 | | |

Crystal Lake Club WTP

The Crystal Lake Club WTP is located at the intersection of E Hook & Sinker Dr and S Highlands Hamic Dr, Avon Park. According to 2021 MOR's, the plant produces an average of .02 MGD. The maximum daily production for this plant in 2021 was 0.36 MGD. The FDEP permitted MDD capacity is 0.5 MGD. See **Table 9** for a summary of the well and well pump capacity.



| Table 9: Crystal Lake Club WTP Well | | | | | | |
|-------------------------------------|---------------|----------------------|-----------------------|---------------------|---------------------------|---------------------------|
| Well Name | Dia. (in.) | Total Depth (ft.) | Casing Depth (ft.) | Pump Type | Pump Capacity (gpm) | Pump Capacity (MGD) |
| 14 | 8 | 1,325 | 260 | Vertical Turbine | 402 | 0.58 |

High service pumps provide final delivery of water into the distribution. The plant is equipped with two high service pumps. See **Table 10** below for a summary of the pump capacities

| Table 10: Crystal Lake Club WTP Pump Capacities | | | | | |
|---|-------------|------------|----------------|--|--|
| Pump Name | Pump Type | Horsepower | Capacity (gpm) | | |
| HSP 1 | Centrifugal | 25 | 300 | | |
| HSP 2 | Centrifugal | 25 | 300 | | |

Flow Data

The water demands for each of the existing water treatment plants were determined from the MOR data submitted to the FDEP for the period of January 2021 to December 2021. See **Table 11** below for a summary of the City's average daily flow and maximum daily flow for this period.

| Table 11: Existing Potable Water Flows | | | | | |
|--|-----------|-----------|--------------------------|------------------------------|---------------------------|
| WTP | Base Flo | ows (gpd) | Permitted Flows (gpd) | Percent of Permitted Flow | Percent of System Flow |
| | Average | Maximum | Maximum | Maximum | Average |
| Bell Street | 1,261,000 | 2,518,000 | 5,300,000 | 47.5 | 59.7 |
| Glenwood Avenue | 831,000 | 1,501,000 | 1,700,000 | 88.3 | 39.4 |
| Crystal Lake Club | 19,000 | 360,000 | 500,000 | 72 | 0.9 |
| Total = | 2,111,000 | 4,379,000 | 7,500,000 | - | - |

Comparing **Table 11** to the projected water flows from **Table 1**, on a systemwide basis the plants have 7.5 MGD of permitted flow which is sufficient capacity for the projected 20-Year average daily flow (3.332 MGD) and maximum day demand (4.998 MGD). Billing data was acquired from the City that accounted for 1.75 MGD and the Average Annual Daily Flow from MOR Data shown in **Appendix B** is 2.028 MGD. A water audit is recommended to evaluate lost water and revenue.



WATER SYSTEM ANALYSIS AND METHODOLOGY

Introduction

This section provides an overview of the methodologies that were used in developing the hydraulic model. The hydraulic model allows for the analysis of the existing system and the system as it might exist in the future. The future system is likely to be different from the existing system because of increased demands and/or changes in the water treatment plant configuration or distribution system configuration. An analysis of the distribution system was performed to assess the improvements that will be necessary to accommodate the changes in demand and system configuration.

Also included in this section is a detailed analysis of the existing distribution system for the Present, 5-Year, 10-Year, and 20-Year planning timelines. In analyzing the improvements and system configurations over time, it allows for selecting projects and configurations that make sense for the long term and most efficiently utilize funds for capital improvements.

Hydraulic Model Development

The software used for the model development was Bentley WaterCAD V10.03.05.05. WaterCAD is a computer-based program that, with user input, calculates a wide variety of system parameters including pressure and available fire flow. These results assist designers in identifying locations in the system where the pressures or available fire flows are below minimum acceptable values. The model can be used to assess the existing system as it is to date and how the system will respond to future increases in demand. It also allows the designer to modify or add/remove system components and establish how the water system responds to the changes. This will allow the user to identify capital improvement projects that will improve the system's hydraulic performance.

The model operates primarily based on user input. All the elements of the existing system (i.e. - pipes, valves, junctions, water treatment plants, demands, etc.) must be input into the model. The water treatment plants provide the water sources for the model and the piping network distributes the water throughout the system to meet the demands. Calibration of the model is accomplished using fire hydrant flow and pressure information gathered in the field. The fire flow demands are input into the model and the corresponding pressures are checked to ensure that the model is reasonably predicting what was observed in the field. In the calibration process, elements within the model (i.e. - pipe frictional coefficients) may be adjusted to adjust the model against field observations.

The existing model was developed in several steps listed below:

- 1. The existing pipe network layout of each of the public water supply systems was determined using previously developed GIS mapping, updated Map Markups from the City, and field locates.
- 2. The existing demand distribution was determined in the following manner:
 - $\circ~$ The City provided approximately one year of billing information and MOR data from all 3 WTPs.
 - The Gallons Per Capita Per Day (GPCD) was calculated utilizing the MOR data and SWFWMD Population Data.
 - Addresses were retrieved from the billing data and points were geocoded and assigned a demand based on the above calculations.
- 3. The operating pressures were obtained from City Utility Staff and actual plant data. The following operating pressures in **Table 12** were used in the model:



| Table 12: Existing System Operating Pressures | | | | |
|---|--------------------|----------------|--|--|
| WTP | Operating Pressure | Model Pressure | | |
| Bell Street | 62 psi | 61 psi | | |
| Glenwood Avenue | 58 psi | 55 psi | | |
| Crystal Lake Club | 60 psi | 55 psi | | |

Before proposed improvements could be evaluated for the system, the hydraulic model had to be calibrated to ensure that it accurately reflected the conditions of the system in the field. The follow steps were taken to calibrate the model:

- Data Collection:
 - City staff conducted fire hydrant flow/pressure tests at 5 locations in the City from June 16, 2022. Each test used two hydrants (one pressure hydrant, one flow hydrant). First, the flow hydrant was completely closed, and a static pressure reading was taken at the pressure hydrant. Then, the flow hydrant was opened fully, and the corresponding flow rate and residual pressure was recorded.
 - City staff installed 4 data loggers at spread out locations on the potable water system that recorded data from June 16, 2022 to June 20, 2022. The data loggers were then retrieved and average pressures in the system were calculated.
- Model Calibration:
 - The fire hydrant flow data was entered into the model and the pipe C values and WTP operating pressures were adjusted to accurately reflect the pressure readings that were observed in the field. Model predictions that were within 15% of the actual collected data were considered acceptable. The data that fell out of that acceptable range were analyzed to determine the cause of the variation and supplemental data collection was performed to truth the model.
 - The pressure data was compared to the pressures in the model and the pipe C values were adjusted to accurately reflect the pressure readings that were observed in the field. Model Predictions that were within 10% of the actual collected data were considered acceptable.

Peaking Factors

The demands calculated above represent average daily flow (ADF) conditions. For the modeling analysis, maximum daily flow (MDF) and peak hour flow (PHF) conditions needed to be approximated. It is common practice to approximate the MDF and PHF conditions by multiplying the ADF demands by a factor. The FDEP estimates these factors as 2.25 for the ADF to MDF conversion and 2.0 for the MDF to PHF conversion. The FDEP factors may be used when little or no information is available for the system being analyzed. The FDEP allows alternative factors to be used provided sufficient historical information is available to accurately determine more appropriate factors. These factors have a significant impact on the modeling results and on the sizing of future components. For the purposes of this analysis and report, a review of the historic MOR data was used to approximate the ADF to MDF factor. Kimley-Horn reviewed MOR data for 2021 to compare historic MDF flows to ADF flows. The maximum flow per day was calculated for each month and then averaged. This average max was then divided by the ADF to obtain a Max Day Demand Factor of 1.46.

To be conservative, this factor was rounded up to yield a final ADF to MDF of 1.5. The FDEP MDF to PHF factor of 2.0 was utilized in the model resulting in a PHF of 3.



System Hydraulic Standards

Before identifying system deficiencies, system hydraulic standards needed to be established. The following hydraulic standards were used to evaluate the hydraulic model for deficiencies:

- Minimum System Pressure with Fire Flow Demand: 20 psi
- Minimum System Pressure with Peak Hour Demand: 35 psi
- Maximum System Pressure: 90 psi
- Typical Network Operating Pressure Range: 45-70 psi
- Fire Flow Demand:
 - Residential Hydrants: 600 GPM
 - Commercial/Industrial Hydrants: 1250 GPM

Methodology

One of the primary objectives of this report is to identify the water treatment plant and distribution system improvements needed to meet future potable water demands. Present Day improvements were made to bring the existing system up to City Standards in two critical scenarios: Max Day Demand + Fire Flow (MD+FF) and Peak Hour Flow (PHF). These improvements were then applied to the 5-year, 10-year, and 20-year scenarios to be sized to accommodate future demands to avoid redundant improvements. The required system improvements for each time step were identified using the hydraulic model while considering the future needs.

The approach for modeling the system focused on primarily improving the Present-Day System due to the large portion of fire hydrants that do not meet required fire flow and large areas with residential homes or commercial businesses that lack any fire protection. The minimum system pressures and available fire flows for each scenario were compared to the hydraulic standards presented above to determine adequacy of the system components and sizes.

Multiple scenarios were modeled to evaluate the impact of adding additional HSPs, various proposed system improvements, and physical expansion and growth of the City. The relevant model scenarios are discussed in the following sections. The discussions are organized chronologically for the present, 5-year, 10-year, and 20-year design time frames. The average and minimum system pressures in the below analyses are static pressures in system.

Scenarios – Present Year Analysis

Included in this section are the results of scenarios for the present system configuration as well as scenarios that include present day improvements to be made. These scenarios are the basis for analyzing other future scenarios for deficiencies or improvements resulting from modifying the City's system. The following scenario analyses are described in detail below:

Scenario 1: Present Day Demand + Max Day + Fire Flow

In this scenario, all existing water treatment plants are connected to the distribution system and are operating at the current pressure set points. **Table 13** below summarizes the results of Scenario 1.

| Table 13: Model Results for Scenario 1 | | | | | |
|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------|--|
| | Avg. System Pressure (psi) | Min. System Pressure (psi) | Min. Available Fire Flow (gpm) | Hydrants Passing (%) | |
| Present Day (MDF+FF) | 61.3 | 44.1 | 299 | 83 | |

Overall, the system is operating above the minimum system pressure standard of 35 psi. The average system pressure is within the typical operating pressure of 45-70 psi. Available fire flow coverage is poor overall and does not meet city standards in many areas. Primarily, the low available fire flows are located at the extreme ends of the system branches, the north west corner by Avon Park Lakes, to the west along State Road 64, to the east near Lake Angelo, and to the south along US 27.

Scenario 2: Present Day Demand + Peak Hour Flow

In this scenario, all existing water treatment plants are connected to the distribution system and are operating at the current pressure set points. **Table 14** below summarizes the results of Scenario 2.

| Table 14: Model Results for Scenario 2 | | | | | |
|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------|--|
| | Avg. System Pressure (psi) | Min. System Pressure (psi) | Min. Available Fire Flow (gpm) | Hydrants Passing (%) | |
| Present Day (PHF) | 52.3 | 35.9 | - | - | |

The results above indicate that the PHF demand scenario does not require improvements to the existing system. The system is operating above the minimum system pressure standard of 35 psi and the average system pressure is within the typical operating pressure of 45-70 psi.

Scenario 3: Present Day Demand + Improvements (MD+FF & PHF)

The following are the specific treatment and water distribution system improvements that need to be constructed in order to meet the anticipated Present Day system fire flow requirements:

- Construct multiple 8" and 12" water main extensions to extend the system west and to loop the system to improve flow in the Avon Park Lakes Area.
- Upsize 2" and 4" water mains in the Avon Park Lakes area.
- Construct a 6" water main to loop the system and upsize pipes to be adequately sized for fire flow in the Lake Damon Area.
- Construct an 8" water main near the intersection of E Cornell St and County Road 17 A N for system looping.
- Upsize of the 8" transmission line to a 12" water main along US 27 N at the south extent of the city to improve fire flow.
- Upsize of the 6" water main to a 12" water main along State Road 64 by the Avon Park Executive Airport.
- Upsize of the 6" water main to an 8" that runs through the South Florida State College Campus.
- Upsize of 3" and 4" water mains near Valerie Blvd and a 6" water main extension to loop the system.
- Construct an 8" water main along E Albritton Rd and the upsizing of 2" water mains near Deer Lake.



• Installation of approx. 280 fire hydrants and appropriately sized pipe throughout the system to ensure fire protection for residential and commercial/industrial areas.

In this scenario, all existing water treatment plants are connected to the distribution system and are operating at the current pressure set points. **Table 15** below summarizes the results of Scenario 3.

| Table 15: Model Results for Scenario 3 | | | | | |
|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------|--|
| | Avg. System Pressure (psi) | Min. System Pressure (psi) | Min. Available Fire Flow (gpm) | Hydrants Passing (%) | |
| Present Day (MD+FF) | 62.4 | 44.6 | 627 | 99% | |
| Present Day (PHF) | 56.7 | 39.7 | - | - | |

The system in both the MD+FF and PHF scenarios, operates above the minimum system pressure standard of 35 psi. The average system pressure in both the MD+FF and PHF scenarios are within the typical operating pressure of 45-70 psi. Available fire flow coverage is well improved from the previous scenario with all but one fire hydrant passing the minimum fire flow designated by City Code.

The failing fire hydrant is located at the Sandhill Grill at Pinecrest Golf Course off Little Lake Bonnet Rd. It is recommended that the City evaluates this fire hydrant for exemption from commercial fire flow requirements to avoid unneeded upgrades. This hydrant has adequate available fire flow to satisfy the residential fire flow requirement of 600 gpm.

Scenarios – 5-Year (2027) Analysis

Significant growth in the infill areas and new developments are anticipated throughout the water system within the 5-year planning horizon. The increase in total demands from the present year to the 5-year timeline is 0.38 MGD. The increased water demands associated with the growth were input into the model and analyzed. This scenario was analyzed at MD+FF and PHF demand conditions.

Included in this section are the results of scenarios for the present system configuration as well as scenarios that include present day improvements to be made. The following scenario analyses are described in detail below:

Scenario 1: 5-Year Demand + Max Day + Fire Flow

In this scenario, all existing water treatment plants are connected to the distribution system and are operating at the current pressure set points. **Table 16** below summarizes the results of Scenario 1.

| Table 16: Model Results for Scenario 1 | | | | | |
|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------|--|
| | Avg. System Pressure (psi) | Min. System Pressure (psi) | Min. Available Fire Flow (gpm) | Hydrants Passing (%) | |
| 5-Year (MDF+FF) | 61.6 | 44.1 | 594 | 99% | |

Overall, the system is operating above the minimum system pressure of 35 psi. The average system pressure is within the typical operating pressure of 45-70 psi in the MD+FF scenario. Available fire flow coverage is good overall with coverage above or within 1% of required fire flow. An improvement will be needed to bring available fire flow in the southeast corner of the system up to city code.



Scenario 2: 5-Year Demand + Peak Hour Flow

In this scenario, all existing water treatment plants are connected to the distribution system and are operating at the current pressure set points. **Table 17** below summarizes the results of Scenario 2.

| Table 17: Model Results for Scenario 2 | | | | | |
|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------|--|
| | Avg. System Pressure (psi) | Min. System Pressure (psi) | Min. Available Fire Flow (gpm) | Hydrants Passing (%) | |
| 5-Year (PHF) | 47.9 | 30.7 | - | - | |

The results above indicate that the PHF demand scenario will require improvements to the system. Overall, the system is operating below the minimum system pressure standard of 35 psi and operates within the typical operating pressure range of 45-70 psi.

Scenario 3: 5-Year Demand + Improvements (MD+FF & PHF)

The following are the specific treatment and water distribution system improvements that need to be constructed to meet the anticipated 5-year system hydraulic performance requirements:

- Construct a 6" water main extension along Panther Parkway to provide looping and improve fire flow in the southeast corner of the city system.
- Upgrade of the Glenwood Avenue WTP to have an additional pump on and the associated upsizing of pipes to help meet increased demands.

In this scenario, all existing water treatment plants are connected to the distribution system and are operating at the current pressure set points. **Table 18** below summarizes the results of Scenario 3.

| Table 18: Model Results for Scenario 3 | | | | | |
|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------|--|
| | Avg. System Pressure (psi) | Min. System Pressure (psi) | Min. Available Fire Flow (gpm) | Hydrants Passing (%) | |
| 5-Year (MD+FF) | 61.6 | 44.1 | 616 | 100% | |
| 5-Year (PHF) | 53.7 | 36.4 | - | - | |

Overall, the system operates above the minimum system pressure standard of 35 psi. The average system pressure in both the MD+FF and PHF scenarios are within the typical operating pressure of 45-70 psi. Available fire flow coverage is good with all fire hydrants passing the minimum fire flow designated by City Code.

Scenarios – 10-Year (2032) Analysis

This scenario includes the anticipated additional demands from the existing service area, infill areas, and new developments from the 10-year growth projection. The increase in total demands from the 5-year to 10-year timeline is estimated to be 0.33 MGD.



Included in this section are the results of scenarios for the 10-Year system configuration as well as a scenario that includes 10-Year improvements to be made. The following scenario analyses are described in detail below:

Scenario 1: 10-Year Demand + Max Day + Fire Flow

In this scenario, all existing water treatment plants are connected to the distribution system and are operating at the current pressure set points. **Table 19** below summarizes the results of Scenario 1.

| Table 19: Model Results for Scenario 1 | | | | | |
|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------|--|
| | Avg. System Pressure (psi) | Min. System Pressure (psi) | Min. Available Fire Flow (gpm) | Hydrants Passing (%) | |
| 10-Year (MDF+FF) | 60.8 | 43.5 | 605 | 100% | |

Overall, the system is operating above the minimum system pressure of 35 psi. The average system pressure is within the typical operating pressure of 45-70 psi in the MD+FF scenario. Available fire flow coverage is good overall with all hydrants meeting required fire flow.

Scenario 2: 10-Year Demand + Peak Hour Flow

In this scenario, all existing water treatment plants are connected to the distribution system and are operating at the current pressure set points. **Table 20** below summarizes the results of Scenario 2.

| Table 20: Model Results for Scenario 2 | | | | | |
|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------|--|
| | Avg. System Pressure (psi) | Min. System Pressure (psi) | Min. Available Fire Flow (gpm) | Hydrants Passing (%) | |
| 10-Year (PHF) | 51.6 | 33.7 | - | - | |

The results above indicate that the PHF demand scenario will require improvements to the system. Overall, the system is operating below the minimum system pressure standard of 35 psi and operates within the typical operating pressure range of 45-70 psi.

Scenario 3: 10-Year Demand + Improvements (MD+FF & PHF)

The following are the specific treatment and water distribution system improvements that need to be constructed to meet the anticipated 10-year system hydraulic performance requirements:

• Upgrade of the Bell Street WTP to have an additional pump on to help meet increased demands.

In this scenario, all existing water treatment plants are connected to the distribution system and are operating at the current pressure set points. **Table 21** below summarizes the results of Scenario 3.



| Table 21: Model Results for Scenario 3 | | | | | |
|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------|--|
| | Avg. System Pressure (psi) | Min. System Pressure (psi) | Min. Available Fire Flow (gpm) | Hydrants Passing (%) | |
| 10-Year (MD+FF) | 63.1 | 45.3 | 627 | 100% | |
| 10-Year (PHF) | 52.5 | 35.0 | - | - | |

Overall, the system operates at the minimum system pressure standard of 35 psi. The average system pressure in both the MD+FF and PHF scenarios are within the typical operating pressure of 45-70 psi. Available fire flow coverage is good with all fire hydrants passing the minimum fire flow designated by City Code.

Scenarios – 20-Year (2042) Analysis

This scenario includes the anticipated additional demands from the existing service area, infill areas, and new developments from the 20-year growth projection. The increase in total demands from the 10-year to 20-year timeline is estimated to be 0.59 MGD.

Included in this section are the results of scenarios for the 20-Year system configuration as well as a scenario that includes 20-Year improvements to be made. The following scenario analyses are described in detail below:

Scenario 1: 20-Year Demand + Max Day + Fire Flow

In this scenario, all existing water treatment plants are connected to the distribution system and are operating at the current pressure set points. **Table 22** below summarizes the results of Scenario 1.

| Table 22: Model Results for Scenario 1 | | | | | |
|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------|--|
| | Avg. System Pressure (psi) | Min. System Pressure (psi) | Min. Available Fire Flow (gpm) | Hydrants Passing (%) | |
| 20-Year (MDF+FF) | 59.3 | 42.3 | 604 | 99% | |

Overall, the system is operating above the minimum system pressure standard of 35 psi. The average system pressure is within the typical operating pressure of 45-70 psi in the MD+FF scenario. Available fire flow coverage is good with most (538 out of 540) fire hydrants passing the minimum fire flow designated by City Code.

Scenario 2: 20-Year Demand + Peak Hour Flow

In this scenario, all existing water treatment plants are connected to the distribution system and are operating at the current pressure set points. **Table 23** below summarizes the results of Scenario 2.

| Table 23: Model Results for Scenario 2 | | | | | |
|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------|--|
| | Avg. System Pressure (psi) | Min. System Pressure (psi) | Min. Available Fire Flow (gpm) | Hydrants Passing (%) | |
| 20-Year (PHF) | 44.4 | 25.0 | - | - | |

The results above indicate that the PHF demand scenario will require improvements to the existing system. The system is not operating above the minimum system pressure standard of 35 psi and the average system pressure was below the typical operating range of 45-70 psi.

Scenario 3: 20-Year Demand + Improvements (MD+FF & PHF)

The following are the specific treatment and water distribution system improvements that need to be constructed in order to meet the anticipated 20-year system hydraulic performance requirements:

- Upsize of the 6" water main to an 8" that runs along Wilhite St and S Lake Ave.
- Upsizing of discharge piping at the Glenwood Avenue WTP.
- Upsizing of discharge piping at the Bell Street WTP.
- Higher Operating points at both the Bell Street WTP (66 psi) and Glenwood Avenue WTP (62.5 psi).

In this scenario, all existing water treatment plants are connected to the distribution system and are operating at modified operating pressures (see above). **Table 24** below summarizes the results of Scenario 3.

| Table 24: Model Results for Scenario 3 | | | | | |
|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------|--|
| | Avg. System Pressure (psi) | Min. System Pressure (psi) | Min. Available Fire Flow (gpm) | Hydrants Passing (%) | |
| 20-Year (MD+FF) | 65.9 | 48.8 | 654 | 100% | |
| 20-Year (PHF) | 52.3 | 35.1 | - | - | |

Overall, the system operates above the minimum system pressure standard of 35 psi. The average system pressure in both the MD+FF and PHF scenarios are within the typical operating pressure of 45-70 psi. Available fire flow coverage is well improved from the previous scenario with all fire hydrants passing the minimum fire flow designated by City Code.



RECOMMENDED WATER SYSTEM CAPITAL IMPROVEMENT PROJECTS

Introduction

This section provides a discussion of the capital improvement projects developed to address current deficiencies and meet future potable water demands. Included in this section is a project list with probable costs of construction for recommended projects at the present year, 5-year, 10-year, and 20-year planning projections. The proposed capital improvement projects were discussed with City staff. See **Appendix C** for the overall list with the estimated construction costs for each of the capital improvement projects. See **Figures 4-6** for an overall map of the capital improvement projects.

Capital Project Descriptions

Present Day Improvements

Project No. 1:

Development based 8" and 12" water main transmission line extensions and looping of system – To meet the 20-year projected max day demands with system fire flows in the water service infill and expansion areas, multiple 8" and 12" water main extensions are required. The improvements are shown in the **Figures 4-6**. These improvements are not based on specific known developments but will be required as new developments enter the system, especially in the Avon Park Lakes Area. The 8" and 12" water main extensions are required to provide the necessary level of service. The total length of pipe required to make this connection is approximately **29,780**'. The estimated capital cost for this project is approximately **\$7,689,600**.

Project No. 2:

Upsize 2" and 4" water mains and Looping in Avon Park Lakes Area – This project consists of upsizing multiple 2" and 4" water mains and an 8" water main extension in the Avon Park Lakes area to meet 20 year projected max day demands with system fire flows in the water service infill and expansion areas. These improvements are not based on specific known developments but will be required as buildout occurs in the Avon Park Lakes region. See **Figure 4** for a map of this improvement. This water main improvement provides the projected average day, maximum day, peak hour demands, and the required system fire flows for the projected build out, infill, and expansion areas. The overall 20-year projected growth and the lack of fire protection currently in the area will trigger the need for this project. The total length of pipe required to make this connection is approximately **35,500'**. The estimated capital cost for this project is approximately **\$4,831,400**.

Project No. 3:

Lake Damon Looping and Upsizing– This project consists of a 6" water main installation along Sun Pure Rd and upsizing of multiple water mains to 6". This project would connect the 12" transmission line along US 27 to the water mains that serve the Lake Damon area and also provide looping. See **Figure 4** for a map of this improvement. The water main interconnect provides the projected average day, maximum day, peak hour demands, and improves the system fire flows for the Lake Damon area. The area currently has no fire hydrants and is vulnerable and unprotected. This project would allow for the installation of fire hydrants to protect this area. The total length of pipe required to make this connection is approximately **16,200**'. The estimated capital cost for this project is approximately **\$2,230,000**.



Project No. 4:

E Cornell St Loop – This project consists of an 8" water main connection near the intersection of E Cornell St and County Road 17A N and a 6" water main for looping. This project would connect the two 8" water mains on E Cornell St and improve flow to the east portion of the City's service area. See **Figure 5** for a map of this improvement. The water main interconnect provides the projected average day, maximum day, peak hour demands, and improves the system fire flows east of Lake Lotela. The total length of pipe required to make this connection is approximately **540'**. The estimated capital cost for this project is approximately **\$90,000**.

Project No. 5:

US 27N Water Main Upsize – This project consists of the upsizing of the 8" water main that runs along US 27N near the south extent of the city. See **Figure 6** for a map of this improvement. The pipes would be upsized to 12" to provide the projected average day, maximum day, peak hour demands, and would also support fire flow for the residential homes in the area. This project would allow for the installation of fire hydrants to protect the area as there are currently no fire hydrants. The total length of pipe required to complete this project is approximately **4,700**'. The estimated capital cost for this project is approximately **\$1,290,000**.

Project No. 6:

State Road 64 Water Main Upsize – This project consists of the upsizing of the 6" water main that runs along State Road 64 near the Avon Park Executive Airport. The pipes would be upsized to 12" to act as a transmission line and provide the projected average day, maximum day, peak hour demands. This area currently has the lowest available fire flow in the system during the Present-Day Scenario, triggering the need for the project. The total length of pipe required to complete this project is approximately **8,580**'. The estimated capital cost for this project is approximately **\$2,050,700**.

Project No. 7:

South Florida State College Water Main Upsize – This project consists of the upsizing of 6" segments of water main to 8" throughout the South Florida State College Campus. See **Figure 5** for a map of this improvement. The pipes would be upsized to 12" to provide the projected average day, maximum day, peak hour demands, and to satisfy commercial fire flow on the campus. The total length of pipe required to complete this project is approximately **7,540**'. The estimated capital cost for this project is approximately **\$1,269,500**.

Project No. 8:

Upsize 3" and 4" water mains and Looping near Valerie Blvd – This project consists of upsizing multiple 3" and 4" water mains in the residential area along Valerie Blvd and looping the system by connecting to the 8" water main that runs along Panther Parkway. See **Figure 6** for a map of this improvement. This water main improvement provides the projected average day, maximum day, peak hour demands, and the required system fire flows for the residential area. The lack of fire protection currently in the area will trigger the need for this project. The total length of pipe required to make this connection is approximately **39,110'**. The estimated capital cost for this project is approximately **\$5,167,700**.

Project No. 9:

Deer Lake Looping and Upsizing – This project consists of an 8" water main along E Albritton Rd and the upsizing of 2" water mains near Deer Lake. See **Figure 5** for a map of this improvement. The water main interconnect provides the projected average day, maximum day, peak hour demands, and improves the system fire flows near Deer Lake. The lack of fire protection currently in the area will trigger the need for this project. The total length of pipe required to make this connection is approximately **8,600**'. The estimated capital cost for this project is approximately **\$1,477,200**.



Project No. 10:

Crystal Lake Club Pressure Control Valve – This project consists of the installation of an 8" pressure control valve where the 8" water main ties the Crystal Lake Club Area into the rest of the public supply system. See **Figure 6** for a map of this improvement. The valve would allow for water from the main system to pass through to the Crystal Lake Club service area if pressures in the area fell too low. This pressure point could be decided by the City and Engineer to best meet the needs of the service area. This improvement would allow for the Crystal Lake Club WTP to run more often and more effectively while also ensuring that minimum pressures can always be maintained if the Crystal Lake Club WTP cannot meet the demands of the system. The estimated capital cost for this project is approximately **\$48,100**.

Project No. 11:

Installation of additional fire hydrants throughout system – This project consists of the addition of approximately **280** fire hydrants to the city system where fire protection is not up to the City's Standards and the upsizing of related piping. For low residential areas, the City requires hydrants every 800 feet along the water main and in medium to high residential areas and commercial/industrial areas, the city requires hydrants every 500 feet along the water main. Locations of new fire hydrants were approximated to get an estimate of how many fire hydrants would potentially be needed for this improvement. A large portion of the City of Avon Park that has water mains does not have adequate fire protection which triggers the need for this improvement. Parcels within 100 feet of a water main that do not have a fire hydrant within 400 feet were evaluated as potentially needing fire protection. These areas are shown in **Figure 3**. Miscellaneous pipe upsizing that would need to be constructed to satisfy fire flow constraints are not specifically shown as a single project in **Figures 4-6**. These parcels aided in approximating a number of fire hydrants to be installed to protect said areas. Estimated capital cost for this project is approximately **\$13,080,500**.

5 Year Improvements

Project No. 12:

Little Red Water Lake Looping– This project consists of a 6" water main installation along Panther Parkway. This project would connect two 8" water mains near Little Red Water Lake and provide looping and adequate fire protection to the residential area near Valerie Blvd and the residential area located near Glacier Ave. See **Figure 6** for a map of this improvement. The water main interconnect provides the projected average day, maximum day, peak hour demands, and improves the system fire flow. The total length of pipe required to make this connection is approximately **2,300**'. The estimated capital cost for this project is approximately **\$350,000**.

Project No. 13:

Glenwood Avenue WTP Pump Upgrades– This project consists of one additional pump at the Glenwood Ave WTP and associated upsizing of pipes. This pump is required in the 5-Year scenario due to the present-day pump configuration no longer being able to handle the demands on the system. This upgrade provides the projected average day, maximum day, peak hour demands, and ensures adequate system fire flow. The additional pump modeled is identical to the pumps that are currently at the plant. The estimated capital cost for this project is approximately **\$290,000**.

10 Year Improvements

Project No. 14:

Bell Street WTP Pump Upgrades– This project consists of one additional pump at the Bell St WTP. This pump is required in the 10-year scenario due to the present-day pump configuration no longer being able to handle the demands on the system. The operating points of the pumps at the Bell St WTP and Glenwood Ave WTP would be raised slightly to ensure minimum and average pressures are maintained in the system. This upgrade provides the projected average day, maximum day, peak hour demands, and ensures adequate system fire flow. The additional pump modeled is identical to the pumps that are currently at the plant. The estimated capital cost for this project is approximately **\$600,000**.



20 Year Improvements

Project No. 15:

Wilhite St Upsize— This project consists of the upsizing of a 6" water main along Wilhite St and S Lake Ave to an 8" water main. See **Figure 5** for a map of this improvement. The water main interconnect provides the projected average day, maximum day, peak hour demands, and improves the system fire flows in the area. The total length of pipe required to make this connection is approximately **2,630**'. The estimated capital cost for this project is approximately **\$720,000**.

Project No. 16:

Glenwood Avenue WTP Discharge Pipe Upgrades– This project consists of the upsizing of a 6" water main along Shaw St. This water main upsize will reduce friction loss in the piping immediately outside of the WTP and will provide the projected average day, maximum day, peak hour demands, and improves the system fire flows in the area. The total length of pipe required to make this connection is approximately 100'. The estimated capital cost for this project is approximately **\$40,000**.

Project No. 17:

Bell Street WTP Discharge Pipe Upgrades– This project consists of the upsizing of a 16" water main discharging from the plant to a 20" water main. This water main upsize will reduce friction loss in the piping immediately outside of the WTP and will provide the projected average day, maximum day, peak hour demands, and improves the system fire flows in the area. The total length of pipe required to make this connection is approximately **220'.** The estimated capital cost for this project is approximately **\$180,000**.





Future Improvements






APPENDIX A: SWFWMD Water Use Permit



Permit: 6029.11



Report Cover Page

Selection Criteria:

- Permit Number: 6029
- Permit Revision: 11
- Report Name: WUP File of Record Report

The information provided is based on the information available at the time of request. The information is believed to be accurate and complete, but is subject to the accuracy and completeness of information submitted to the District by permittees and other sources and is subject to the specific request made. The District does not warrant that the information is suitable for any particular use.





| Permit #: | 6029.011 | | | | | | | Application Received: | 04/16/2014 | | | | |
|--|---|--|-----------|---------------|----------|----------|---------------|-----------------------|------------|--|--|--|--|
| Permit Dept: | Bartow | | | | | | | Issue Date: | 07/03/2014 | | | | |
| Permittee Name: | City Of Avon P | ark / Attn: David | d Flowers | | | | | Expire Date: | 11/25/2029 | | | | |
| Address: | 110 E. Main Str | reet | | | | | | | | | | | |
| | Avon Park, FL | 33825 | | | | | | | | | | | |
| Phone: | (863) 452-4403 | | | | | | | | | | | | |
| Туре: | Individual | ividual | | | | | | | | | | | |
| Class: | Letter Modifica | tter Modification | | | | | | | | | | | |
| Project Name: | City Of Avon P | Letter Modification City Of Avon Park Public Supply | | | | | | | | | | | |
| Acres: | Owned | Controlled | Serviced | Leased | Total | | | | | | | | |
| | 30.74 | 0.00 | 5,577.70 | | 5,608.44 | | | | | | | | |
| Total Quantities: | | Avg GP | D Avg l | Drought GPD | Peak GPD |) | Max GPD |] | | | | | |
| | Requested | 2,225, | 000 | Not Specified | 2,692, | 300 | Not Specified | | | | | | |
| | Permitted | 2,371, | 600 | Not Specified | 2,882,9 | 900 | Not Specified | | | | | | |
| Pred Use Type: WUCA: Basin: County: | Public Supply Southern Water Peace River Highlands | Use Caution Ar | ea | | | • | | - | | | | | |
| Referencing: Township Range | Section(s) | | | | | | | | | | | | |
| 33 28 34 28 | 04, 15, 21, 22, 26 02, 10, 11 | | | | | | | | | | | | |



Permit: 6029.11



Withdrawals: **District ID #:** 6 User ID: Winthrop WD Type: Withdrawal of Groundwater WD Status: Capped Well Use: Public Supply Predom. Use: Public Supply Site Function: Public Supply Site Operation: Standby Withdrawal Point **Monitor Type: Monitor Use:** Stand By Casing Casing Total WD Avg WD Peak WD Max GPD GPD GPD Latitude Qty Diam Depth Depth Longitude 18 1,050 N/A N/A 27° 36' 09.31' 81° 30' 26.19" District ID #: 11 User ID: A WD Type: Withdrawal of Groundwater WD Status: Existing Well Use: Public Supply Site Function: Public Supply Site Operation: No Further Info Necessary **Predom. Use: Monitor Type:** Monitor Use: Stand By WD Avg WD Peak WD Max Casing Casing Total GPD GPD GPD Qty Diam Depth Depth Latitude Longitude 120 5,100 5,800 N/A 27° 35' 21.42" 81° 31' 09.25" 5 District ID #: 10 User ID: Shad WD Type: Withdrawal of Groundwater WD Status: Capped Well Use: Public Supply Predom. Use: Public Supply Site Function: Public Supply Site Operation: No Further Info Necessary Monitor Use: **Monitor Type:** Stand By Casing WD Peak WD Max Casing Total WD Avg Qty Diam Depth Depth GPD GPD GPD Latitude Longitude 300 450 N/A N/A 27° 32' 40.00" 81° 29' 30.90"





| awais. | (continuea | 1) | | | | | | | |
|--|--|--|---|---|--|---------------------------------------|--|--|---|
| District ID # | : 1 | | | User ID: | Glen | | | | |
| WD Type: | Withdrawal of G | roundwater | | WD Status: | Existing | | | Well Use: | Public Supply |
| Predom. Use | : Public Supply | | | Site Function: | Public Supply | | | Site Operation: | Additional Use |
| Monitor Type | : | | | Monitor Use: | | | | | |
| Stand By Qty | Casing Diam | Casing Depth | Total Depth | WD Avg GPD | WD Peak GPD | WD Max GPD | Latitude | Longitude | |
| 342,400. | 00 8 | 0 | 1,100 | 342,400 | 414,600 | N/A | 27° 35' 37.68" | 81° 30' 26.03" | |
| District ID # | : 12 | | | User ID: | В | | | | |
| WD Type: | Withdrawal of G | roundwater | | WD Status: | Existing | | | Well Use: | Public Supply |
| Predom. Use | : | | | Site Function: | Public Supply | | | Site Operation: | No Further Info Necessary |
| Monitor Type | : | | | Monitor Use: | | | | | |
| | | | | | | | | | ו |
| Stand By Qty | Casing Diam | Casing Depth | Total Depth | WD Avg GPD | WD Peak GPD | WD Max GPD | Latitude | Longitude | |
| Stand By Qty | Casing Diam 5 | Casing Depth | Total Depth 120 | WD Avg GPD 5,100 | WD Peak GPD 5,800 | WD Max GPD N/A | Latitude 27° 35' 21.70" | Longitude 81° 31' 13.73" | |
| Stand By Qty District ID # | Casing Diam 5 | Casing Depth | Total Depth 120 | WD Avg GPD 5,100 User ID: | WD Peak GPD 5,800 7-Pine Acr | WD Max GPD N/A | Latitude 27° 35' 21.70" | Longitude 81° 31' 13.73" | |
| Stand By Qty District ID # WD Type: | Casing Diam 5 : 7 Withdrawal of Gu | Casing Depth | Total Depth 120 | WD Avg GPD 5,100 User ID: WD Status: | WD Peak GPD 5,800 7-Pine Acr Capped | WD Max GPD N/A | Latitude 27° 35' 21.70" | Longitude 81° 31' 13.73" Well Use: | Public Supply |
| Stand By Qty District ID # WD Type: Predom. Use | Casing Diam 5 : 7 Withdrawal of Gr : Public Supply | Casing Depth | Total Depth 120 | WD Avg GPD 5,100 User ID: WD Status: Site Function: | WD Peak GPD 5,800 7-Pine Acr Capped Public Supply | WD Max GPD N/A | Latitude 27° 35' 21.70" | Longitude 81° 31' 13.73" Well Use: Site Operation: | Public Supply Standby Withdrawal Point |
| Stand By Qty District ID # WD Type: Predom. Use Monitor Type | Casing Diam 5 | Casing Depth | Total Depth 120 | WD Avg GPD 5,100 User ID: WD Status: Site Function: Monitor Use: | WD Peak GPD 5,800 7-Pine Acr Capped Public Supply | WD Max GPD N/A | Latitude 27° 35' 21.70" | Longitude 81° 31' 13.73" Well Use: Site Operation: | Public Supply Standby Withdrawal Point |
| Stand By Qty District ID # WD Type: Predom. Use Monitor Type | Casing Diam 5 : 7 Withdrawal of Gr : Public Supply : | Casing Depth | Total Depth 120 | WD Avg GPD 5,100 User ID: WD Status: Site Function: Monitor Use: | WD Peak GPD 5,800 7-Pine Acr Capped Public Supply | WD Max GPD N/A | Latitude 27° 35' 21.70" | Longitude 81° 31' 13.73" Well Use: Site Operation: | Public Supply Standby Withdrawal Point |
| Stand By Qty District ID # WD Type: Predom. Use Monitor Type Stand By Oty | Casing Diam 5 : 7 Withdrawal of Gr : Public Supply : Casing Diam | Casing Depth roundwater Casing Depth | Total Depth 120 Total Depth | WD Avg GPD 5,100 User ID: WD Status: Site Function: Monitor Use: WD Avg GPD | WD Peak GPD 5,800 7-Pine Acr Capped Public Supply WD Peak GPD | WD Max GPD N/A WD Max GPD | Latitude 27° 35' 21.70" Latitude | Longitude 81° 31' 13.73" Well Use: Site Operation: Longitude | Public Supply Standby Withdrawal Point |





| awals: | (continued) |) | | | | | | | |
|--|--|--|-------------------------|---|---|---------------------------------------|-----------------------------------|---|--|
| District ID #: | 9 | | | User ID: | Grouper | | | | |
| WD Type: V | Vithdrawal of Gr | oundwater | | WD Status: | Capped | | | Well Use: | Public Supply |
| Predom. Use: 1 | Public Supply | | | Site Function: | Public Supply | | | Site Operation: | No Further Info Necessary |
| Monitor Type: | | | | Monitor Use: | | | | | |
| Stand By Qty | Casing Diam | Casing Depth | Total Depth | WD Avg GPD | WD Peak GPD | WD Max GPD | Latitude | Longitude | |
| | 8 | 300 | 1,300 | | N/A | N/A | 27° 32' 30.40" | 81° 29' 59.50" | |
| District ID #: | 3 | | | User ID: | Old Bell | | | | |
| | | | | | E ' ' | | | XX7 11 X7 | D 111 C 111 |
| WD Type: V | Vithdrawal of Gr | oundwater | | WD Status: | Existing | | | Well Use: | Public Supply |
| WD Type: V Predom. Use: 1 | Vithdrawal of Gr Public Supply | oundwater | | WD Status: Site Function: | Existing Public Supply | | | Well Use: Site Operation: | Additional Use |
| WD Type: V Predom. Use: 1 Monitor Type: | Vithdrawal of Gr Public Supply | oundwater | | WD Status: Site Function: Monitor Use: | Existing Public Supply | | | Well Use: Site Operation: | Additional Use |
| WD Type: V Predom. Use: 1 Monitor Type: Stand By Qty | Vithdrawal of Gr Public Supply Casing Diam | oundwater Casing Depth | Total Depth | WD Status: Site Function: Monitor Use: WD Avg GPD | Existing Public Supply WD Peak GPD | WD Max GPD | Latitude | Well Use: Site Operation: Longitude | Additional Use |
| WD Type: W Predom. Use: 1 Monitor Type: Stand By Qty 640,900.00 | Vithdrawal of Gr Public Supply Casing Diam 16 | Oundwater Casing Depth 0 | Total Depth 1,000 | WD Status: Site Function: Monitor Use: WD Avg GPD 641,000 | Existing Public Supply WD Peak GPD 775,700 | WD Max GPD N/A | Latitude 27° 35' 28.60" | Well Use: Site Operation: Longitude 81° 31' 17.30" | Additional Use |
| WD Type: V Predom. Use: 1 Monitor Type: Stand By Qty 640,900.00 District ID #: | Vithdrawal of Gr Public Supply Casing Diam 16 | Oundwater Casing Depth 0 | Total Depth 1,000 | WD Status: Site Function: Monitor Use: WD Avg GPD 641,000 User ID: | Existing Public Supply WD Peak GPD 775,700 14 | WD Max GPD N/A | Latitude 27° 35' 28.60" | Well Use: Site Operation: Longitude 81° 31' 17.30" | Additional Use |
| WD Type: W Predom. Use: 1 Monitor Type: Stand By Qty 640,900.00 District ID #: WD Type: W | Vithdrawal of Gr Public Supply Casing Diam 16 14 Vithdrawal of Gr | Casing Depth 0 | Total Depth 1,000 | WD Status: Site Function: Monitor Use: WD Avg GPD 641,000 User ID: WD Status: | Existing Public Supply WD Peak GPD 775,700 14 Existing | WD Max GPD N/A | Latitude 27° 35' 28.60" | Well Use: Site Operation: Longitude 81° 31' 17.30" Well Use: | Additional Use |
| WD Type: V Predom. Use: 1 Monitor Type: Stand By Qty 640,900.00 District ID #: WD Type: V Predom. Use: 1 | Vithdrawal of Gr Public Supply Casing Diam 16 14 Vithdrawal of Gr Public Supply | Casing Depth 0 oundwater | Total Depth 1,000 | WD Status: Site Function: Monitor Use: WD Avg GPD 641,000 User ID: WD Status: Site Function: | Existing Public Supply WD Peak GPD 775,700 14 Existing Public Supply | WD Max GPD N/A | Latitude 27° 35' 28.60" | Well Use: Site Operation: <u>Longitude</u> 81° 31' 17.30" Well Use: Site Operation: | Additional Use Public Supply Public Supply No Further Info Necessary |
| WD Type: W Predom. Use: 1 Monitor Type: Stand By Qty 640,900.00 District ID #: WD Type: W Predom. Use: 1 Monitor Type: | Vithdrawal of Gr Public Supply Casing Diam 16 14 Vithdrawal of Gr Public Supply | Casing Depth 0 | Total Depth 1,000 | WD Status: Site Function: Monitor Use: WD Avg GPD 641,000 User ID: WD Status: Site Function: Monitor Use: | Existing Public Supply WD Peak GPD 775,700 14 Existing Public Supply | WD Max GPD N/A | Latitude 27° 35' 28.60" | Well Use: Site Operation: Longitude 81° 31' 17.30" Well Use: Site Operation: | Additional Use Public Supply Public Supply No Further Info Necessary |
| WD Type: V Predom. Use: 1 Monitor Type: Stand By Qty 640,900.00 District ID #: WD Type: V Predom. Use: 1 Monitor Type: | Vithdrawal of Gr Public Supply Casing Diam 16 14 Vithdrawal of Gr Public Supply | Casing Depth 0 | Total Depth 1,000 | WD Status: Site Function: Monitor Use: WD Avg GPD 641,000 User ID: WD Status: Site Function: Monitor Use: | Existing Public Supply WD Peak GPD 775,700 14 Existing Public Supply | WD Max GPD N/A | Latitude 27° 35' 28.60" | Well Use: Site Operation: Longitude 81° 31' 17.30" Well Use: Site Operation: | Additional Use Public Supply Public Supply No Further Info Necessary |
| WD Type: W Predom. Use: 1 Monitor Type: Stand By Qty 640,900.00 District ID #: WD Type: W Predom. Use: 1 Monitor Type: Stand By Oty | Vithdrawal of Gr Public Supply Casing Diam 16 14 Vithdrawal of Gr Public Supply Casing Diam | Casing Depth 0 oundwater Casing Denth | Total Depth 1,000 | WD Status: Site Function: Monitor Use: WD Avg GPD 641,000 User ID: WD Status: Site Function: Monitor Use: WD Avg GPD | Existing Public Supply WD Peak GPD 775,700 14 Existing Public Supply WD Peak GPD | WD Max GPD N/A WD Max GPD | Latitude 27° 35' 28.60" | Well Use: <u>Longitude</u> <u>81° 31' 17.30"</u> Well Use: Site Operation: Longitude | Additional Use Public Supply Public Supply No Further Info Necessary |





| awals. | (continued | D | | | | | | | |
|--|-----------------------------|-----------------|---|--|---|---------------|----------------|------------------------------|---|
| District ID # | : 2 | | | User ID: | Summit | | | | |
| WD Type: | Withdrawal of Gr | roundwater | | WD Status: | Existing | | | Well Use: | Public Supply |
| Predom. Use: | Public Supply | | | Site Function: 1 | Public Supply | | | Site Operation: | Additional Use |
| Monitor Type: | • | | | Monitor Use: | | | | | |
| Stand By Qty | Casing Diam | Casing Depth | Total Depth | WD Avg GPD | WD Peak GPD | WD Max GPD | Latitude | Longitude | |
| 342,400.0 |)0 8 | 0 | 1,150 | 342,400 | 414,700 | N/A | 27° 35' 37.54" | 81° 30' 30.77" | |
| District ID # | : 13 | | | User ID: | 13 | | | | |
| WD Type: | Withdrawal of Gr | roundwater | | WD Status: | Existing | | | Well Use: | Public Supply |
| Predom. Use: | : | | | Site Function: 1 | Public Supply | | | Site Operation: | No Further Info Necessary |
| Monitor Type: | , , | | | Monitor Use: | | | | | |
| Stand By | Casing Diam | Casing Depth | Total Depth | WD Avg GPD | WD Peak GPD | WD Max GPD | Latitude | Longitude | |
| עיץ | | | 90 | 4,100 | 4,700 | N/A | 27° 36' 11.59" | 81° 30' 43.14" | |
| | 5 | 60 | 90 | | | | | | |
| District ID # | 15 | 60 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | User ID: | Glenwood #3 | | | | |
| District ID # | 5 15 Withdrawal of Gr | roundwater | 20 | User ID: 0 | Glenwood #3 Existing | I | | Well Use: | Public Supply |
| District ID #3 WD Type: Predom. Use: | 5 15 Withdrawal of Gr | roundwater | 20 | User ID: 0 WD Status: 1 Site Function: 1 | Glenwood #3 Existing Public Supply | | | Well Use: Site Operation: | Public Supply Standby Withdrawal Point |
| District ID # WD Type: Predom. Use: Monitor Type: | : 15 Withdrawal of Gr | coundwater | | User ID: 0 WD Status: Site Function: Monitor Use: | Glenwood #3 Existing Public Supply | | I | Well Use: Site Operation: | Public Supply Standby Withdrawal Point |
| District ID # WD Type: Predom. Use: Monitor Type: | : 15 Withdrawal of Gr | coundwater | Total | User ID: WD Status: Site Function: Monitor Use: WD Avg | Glenwood #3 Existing Public Supply WD Peak | WD Max | | Well Use: Site Operation: | Public Supply Standby Withdrawal Point |





| Withdray | vals: | (continue | ed) | | | | | | | | |
|------------------|---|----------------------|--------------------|-------|----------------|---------------|--------------|----------------|------------------|--------------|----------------------|
|] | District ID #: 4 | Ļ | | | User ID: | New Bell | | | | | |
| | WD Type: W | ithdrawal of C | Groundwater | | WD Status: | Existing | | | Well Use: | Public Suppl | ly |
| 1 | Predom. Use: P | ublic Supply | | | Site Function: | Public Supply | | | Site Operation: | Additional U | Jse |
| N | Ionitor Type: | | | | Monitor Use: | | | | | | |
| | T | | 1 1 | | | | | | | l | |
| | Stand By | Casing | Casing | Total | WD Avg | WD Peak | WD Max | | | | |
| | Qty | Diam | Depth | Depth | GPD 640,000 | GPD 775 700 | GPD N/A | Latitude | Longitude | | |
| | 641,000.00 | 18 | 431 | 1,332 | 640,900 | //5,/00 | N/A | 2/* 35* 30.30* | 81° 31° 19.20 | | |
|] | District ID #: 1 | 6 | | | User ID: | Bell #3 | | | | | |
| | WD Type: W | ithdrawal of C | Groundwater | | WD Status: | Existing | | | Well Use: | Public Supp | lv |
| 1 | Predom, Use: | | | | Site Function: | Public Supply | | | Site Operation: | Standby Wit | hdrawal Point |
| N | Ionitor Type: | | | | Monitor Use: | r uone suppry | | | Site operation. | Sundoy vin | |
| | | | , , | | | | | | | 1 | |
| | Stand By | Casing | Casing | Total | WD Avg | WD Peak | WD Max | | | | |
| | Qty | Diam | Depth | Depth | GPD | GPD | GPD | Latitude | Longitude | | |
| | | 18 | | | 641,000 | 775,700 | N/A | 27° 35' 28.50" | 81° 31' 19.76" | | |
| | | | | | | | | | | | |
| Use: | | | | | | | | | | | |
| | | | | | | | | | | | |
| District ID # | Use Type | Pre | edominant Use Type | · | se Avø GPD | Drought GPD | Use Peak GPD | Use Max GPF |) Use Acreage Se | nil Type | IRR Method |
| 0 | Lawn & Landscap | e Pul | blic Supply | | 32,300 | brought of b | 34,100 | | 26.00 A | statula | Low Volume Spray |
| | Irrigation | | | | 1.50 100 | | | | | | |
| | Other Metered Use Residential Multi- | es Pul Family Pul | blic Supply | | 458,400 | | 555,000 | | | | |
| 0 | Residential Single | Family Put | blic Supply | | 1,335,000 | | 1 619 400 | | | | |
| 0 | Treatment Losses | Pul | blic Supply | | 45,000 | | 55,000 | | | | |
| | (Backflushing) | | | | | | | | | | |
| 0 | Unaccounted Use | Pul | blic Supply | | 225,000 | | 272,300 | | | | |
| 11 | Lawn & Landscap | e Pul | blic Supply | | 5,100 | | 5,800 | | 2.50 13 | avares | Low Volume Spray |
| 12 | Lawn & Landscap | e Pul | blic Supply | | 5,100 | | 5,800 | | 2.50 Ta | avares | Low Volume Spray |
| 10 | Irrigation | | | | 4.100 | | . = | | 2 .02 | | |
| 13 | Lawn & Landscap | e Pul | blic Supply | | 4,100 | | 4,700 | | 2.00 A | statula | Sprinkler Over Plant |
| 14 | Residential Single | Family Pul | blic Supply | | 146,600 | | 190,600 | | | | |



APPENDIX B: FDEP 2021 Monthly Operating Reports

| | | lanuary | | | | | February | | | | | March | | | | | April | | |
|--|--|---|--|---|---|--|--|--|---|---|--|---|--|---|--|---|--|---|--|
| | Bell | Glenwood | Crystal | TOTAL | | Bell | Glenwood | Crystal | TOTAL | | Bell | Glenwood | Crystal | TOTAL | | Bell | Glenwood | Crystal | TOTAL |
| 1 | 1214 | 444 | , | 1658 | 1 | 1510 | 1103 | 20 | 2633 | 1 | 1236 | 606 | 20 | 1862 | 1 | 937 | 738 | 20 | 1695 |
| 2 | | | | 0 | 2 | 1182 | 670 | 7 | 1859 | 2 | 125 | 833 | 19 | 977 | 2 | 2110 | 2090 | 28 | 4228 |
| 3 | 3093 | 1220 | | 4313 | 3 | 1243 | 754 | 3 | 2000 | 3 | 1232 | 841 | 20 | 2093 | 3 | | | | 0 |
| 4 | 1487 | 608 | | 2095 | 4 | 1262 | 584 | 5 | 1851 | 4 | 1150 | 721 | 21 | 1892 | 4 | 1895 | 610 | 61 | 2566 |
| 5 | 1453 | 431 | | 1884 | 5 | 1305 | 740 | 5 | 2050 | 5 | 1303 | 991 | 18 | 2312 | 5 | 1695 | 1149 | 0 | 2844 |
| 6 | 1065 | 852 | 34 | 1951 | 6 | | | | 0 | 6 | | | | 0 | 6 | 1014 | 1185 | 30 | 2229 |
| 7 | 1063 | 696 | 85 | 1844 | 7 | 2334 | 1234 | 8 | 3576 | 7 | 2367 | 1547 | 56 | 3970 | 7 | 1765 | 862 | 21 | 2648 |
| 8 | 1160 | 739 | 106 | 2005 | 8 | 931 | 1144 | 4 | 2079 | 8 | 1305 | 801 | 21 | 2127 | 8 | 1193 | 1103 | 46 | 2342 |
| 9 | | | | 0 | 9 | 1346 | 758 | 23 | 2127 | 9 | 755 | 570 | 22 | 1347 | 9 | 1264 | 986 | 11 | 2261 |
| 10 | 2359 | 1215 | 220 | 3794 | 10 | 1186 | 832 | | 2018 | 10 | 1693 | 894 | 19 | 2606 | 10 | | | | 0 |
| 11 | 1471 | 823 | 251 | 2545 | 11 | 1501 | 801 | | 2302 | 11 | 846 | 799 | 22 | 1667 | 11 | 3115 | 2314 | 32 | 5461 |
| 12 | 1219 | 878 | | 2097 | 12 | 1442 | 874 | | 2316 | 12 | 1695 | 848 | 23 | 2566 | 12 | 913 | 681 | 50 | 1644 |
| 13 | 1260 | 780 | 20 | 2060 | 13 | | | | 0 | 13 | | | | 0 | 13 | 1236 | 665 | 13 | 1914 |
| 14 | 1221 | 702 | | 1923 | 14 | 2183 | 1413 | 24 | 3620 | 14 | 2409 | 1514 | 20 | 3943 | 14 | 1343 | 883 | 13 | 2239 |
| 15 | 1283 | 788 | | 2071 | 15 | 1235 | 706 | | 1941 | 15 | 1105 | 1261 | 27 | 2393 | 15 | 1457 | 1002 | 40 | 2499 |
| 16 | | | | 0 | 16 | 1726 | 973 | 23 | 2722 | 16 | 1721 | 1007 | 22 | 2750 | 16 | 1350 | 1122 | 23 | 2495 |
| 17 | 2432 | 1481 | 19 | 3932 | 17 | 930 | 728 | | 1658 | 17 | 1137 | 972 | 21 | 2130 | 17 | | | | 0 |
| 18 | 1012 | 520 | | 1532 | 18 | 1219 | 568 | 19 | 1806 | 18 | 1498 | 1010 | 22 | 2530 | 18 | 2819 | 2029 | 11 | 4859 |
| 19 | 1410 | 1090 | | 2500 | 19 | 900 | 740 | | 1640 | 19 | 1381 | 885 | 20 | 2286 | 19 | 1283 | 688 | 0 | 1971 |
| 20 | 1447 | 595 | 29 | 2071 | 20 | | | | 0 | 20 | | | | 0 | 20 | 1155 | 703 | 25 | 1883 |
| 21 | 1089 | 944 | 11 | 2044 | 21 | 2531 | 1573 | 9 | 4113 | 21 | 2449 | 1718 | 28 | 4195 | 21 | 1826 | 878 | 0 | 2704 |
| 22 | 1128 | 788 | 20 | 1936 | 22 | 1162 | 980 | | 2142 | 22 | 1343 | 603 | 18 | 1964 | 22 | 671 | 645 | 29 | 1345 |
| 23 | | | | 0 | 23 | 1203 | 433 | 19 | 1655 | 23 | 1023 | 826 | 23 | 1872 | 23 | 1357 | 710 | 13 | 2080 |
| 24 | 2701 | 1538 | 20 | 4259 | 24 | 1502 | 860 | 13 | 2375 | 24 | 1673 | 942 | 20 | 2635 | 24 | | | | 0 |
| 25 | 1455 | 786 | 27 | 2268 | 25 | 1492 | 866 | | 2358 | 25 | 1382 | 915 | 22 | 2319 | 25 | 2374 | 1697 | 40 | 4111 |
| 26 | 1322 | 911 | 21 | 2254 | 26 | 1424 | 798 | 58 | 2280 | 26 | 1374 | 1105 | 54 | 2533 | 26 | 1357 | 1019 | 22 | 2398 |
| 27 | 1333 | 822 | 12 | 2167 | 27 | | | | 0 | 27 | | | | 0 | 27 | 1329 | 1004 | 37 | 2370 |
| 28 | 1100 | 393 | | 1493 | 28 | 2664 | 1286 | 29 | 3979 | 28 | 2892 | 2489 | 14 | 5395 | 28 | 924 | 908 | 22 | 1854 |
| 29 | 1163 | 804 | | 1967 | 29 | | | | 0 | 29 | 1287 | 790 | 29 | 2106 | 29 | 1024 | 831 | 23 | 1878 |
| 30 | | | | 0 | 30 | | | | 0 | 30 | 1316 | 1045 | 57 | 2418 | 30 | 2512 | 885 | 33 | 3430 |
| 31 | 2662 | 1608 | 32 | 4302 | 31 | | | | 0 | 31 | 1362 | 1228 | 21 | 2611 | 31 | | | | 0 |
| TOTAL | 39602 | 22456 | 907 | | TOTAL | 35413 | 21418 | 269 | L | TOTAL | 39059 | 27761 | 679 | | TOTAL | 39918 | 27387 | 643 | |
| Average | 1277 | 724 | 29 | L | Average | 1264.75 | 764.92857 | 9.607143 | | Average | 1259.968 | 895.516129 | 21.90323 | | Average | 1330.6 | 912.9 | 21.43333 | |
| | | May | | | | | June | 1 | 1 | | | July | | | | 1 | August | | |
| | Bell | Glenwood | Crystal | TOTAL | | Bell | Glenwood | Crystal | TOTAL | | Bell | Glenwood | Crystal | TOTAL | | Bell | Glenwood | Crystal | TOTAL |
| 1 | | | | 0 | 1 | 2518 | 1501 | 20 | 4039 | 1 | 1316 | 617 | 15 | 1948 | 1 | 2500 | 1402 | 0 | 3902 |
| 2 | 2512 | 1971 | 20 | 4503 | 2 | 1185 | 759 | 27 | 1971 | 2 | 1106 | 579 | 0 | 1685 | 2 | 1230 | 780 | 0 | 2010 |
| 3 | 1541 | 1101 | 26 | 2668 | 3 | 1634 | 1000 | 23 | 2657 | 3 | | 10/5 | | 0 | 3 | 1374 | 815 | 28 | 2217 |
| 4 | 926 | 754 | 21 | 1701 | 4 | 652 | 1486 | 24 | 2162 | 4 | 2104 | 1065 | 23 | 3192 | 4 | 1155 | 582 | 0 | 1737 |
| 5 | 1651 | 1104 | 22 | 2777 | 5 | | | | 0 | 5 | 1014 | 644 | 0 | 1658 | 5 | 1245 | 656 | 23 | 1924 |
| 6 | 1388 | 601 | 19 | 2008 | 6 | 1512 | 1457 | 40 | 3009 | 6 | 1179 | 502 | 0 | 1681 | 6 | 1566 | 897 | 28 | 2491 |
| 7 | 1180 | 825 | 27 | 2032 | 7 | 2207 | 804 | 28 | 3039 | 7 | 1203 | 720 | 26 | 1949 | 7 | | | | 0 |
| 8 | | | | 0 | 8 | 1549 | 853 | 29 | 2431 | 8 | 1203 | 657 | 0 | 1860 | 8 | 2529 | 1226 | 0 | 3755 |
| 9 | 2773 | 1797 | 24 | 4594 | 9 | 1696 | 906 | 32 | 2634 | 9 | 1259 | 750 | | 2009 | 9 | 1250 | 929 | 38 | 2217 |
| 10 | 1565 | 966 | 25 | 2556 | 10 | 1524 | 1040 | 26 | 2590 | 10 | | | 21 | 21 | 10 | 1097 | 650 | 19 | 1766 |
| 11 | 1298 | 702 | 25 | 2025 | 11 | 1442 | 801 | 38 | 2281 | 11 | 2596 | 1477 | 0 | 4073 | 11 | 1176 | 692 | 0 | 1868 |
| 12 | 1544 | 836 | 19 | 2399 | 12 | | | | 0 | 12 | 1362 | 800 | 27 | 2189 | 12 | 1440 | 831 | 28 | 2299 |
| 13 | 1236 | 808 | 25 | 2069 | 13 | 2962 | 1751 | 47 | 4760 | 13 | 1176 | 661 | 0 | 1837 | 13 | 1231 | 755 | 28 | 2014 |
| 14 | 1182 | 829 | 31 | 2042 | 14 | 1723 | 976 | 25 | 2724 | 14 | 1130 | 595 | 23 | 1748 | 14 | | | | 0 |
| 15 | | | | 0 | 15 | 1216 | 646 | 22 | 1884 | 15 | 1203 | 654 | 0 | 1857 | 15 | 2238 | 1374 | 26 | 3638 |
| 16 | 3064 | 1638 | 21 | 4/23 | 16 | 1275 | /00 | 19 | 1994 | 16 | 1251 | 688 | 31 | 1970 | 16 | 1431 | 828 | 0 | 2259 |
| 17 | 1/13 | 1107 | 36 | 2856 | 1/ | 1182 | 621 | 0 | 1803 | 1/ | | 1001 | 10 | 0 | 17 | 1099 | /05 | 19 | 1823 |
| 18 | 1623 | 845 | 34 | 2502 | 18 | 1260 | 760 | 41 | 2061 | 18 | 2488 | 1391 | 13 | 3892 | 18 | 1284 | 667 | 21 | 1972 |
| 19 | 1329 | 765 | 27 | 2121 | 19 | | 1080 | | 0 | 19 | 1645 | 982 | 18 | 2645 | 19 | 1226 | 862 | 22 | 2110 |
| 20 | 1820 | 1009 | 26 | 2855 | 20 | 2343 | 1372 | 23 | 3738 | 20 | 1296 | 819 | 18 | 2133 | 20 | 1759 | 600 | 26 | 2385 |
| 21 | 1248 | 649 | 29 | 1926 | 21 | 1439 | 789 | 37 | 2265 | 21 | 1269 | 743 | 0 | 2012 | 21 | | | | 0 |
| 22 | | | | 0 | 22 | 1520 | 475 | 23 | 2018 | 22 | 1265 | 746 | 0 | 2011 | 22 | 1240 | 1611 | 38 | 2889 |
| 23 | 3161 | 1866 | 32 | 5059 | 23 | 1372 | 637 | 0 | 2009 | 23 | 1328 | 779 | 1 | 2108 | 23 | 2383 | 1397 | 16 | 3796 |
| 24 | 1437 | 804 | 30 | 2271 | 24 | 1211 | 777 | 25 | 2013 | 24 | | | | 0 | 24 | 1172 | 712 | 15 | 1899 |
| 25 | 1950 | 1034 | 26 | 3010 | 25 | 1069 | 583 | 21 | 1673 | 25 | 2347 | 1350 | 0 | 3697 | 25 | 1099 | 917 | 26 | 2042 |
| 26 | 161 | 1163 | 62 | 1385.6 | 26 | | | 0 | 0 | 26 | 1295 | 901 | 33 | 2229 | 26 | 1224 | 1247 | 0 | 2471 |
| 27 | 2097 | 1328 | 65 | 3490 | 27 | 2202 | 1239 | 30 | 3471 | 27 | 1362 | 702 | 0 | 2064 | 27 | 466 | 1453 | 34 | 1953 |
| 28 | 1368 | 819 | 31 | 2218 | 28 | 970 | 927 | 0 | 1897 | 28 | 1186 | 681 | 27 | 1894 | 28 | | | | 0 |
| 29 | 2027 | 1126 | 8 | 3161 | 29 | 1402 | 682 | 24 | 2108 | 29 | 1268 | 654 | 0 | 1922 | 29 | 1979 | 2080 | 27 | 4086 |
| 30 | 0.004 | 1550 | | 0 | 30 | 1056 | 6/3 | 0 | 1/29 | 30 | 1025 | 680 | 24 | 1/29 | 30 | 1197 | 1000 | 46 | 2243 |
| 31 | 2/21 | 1558 | 30 | 4309 | 31 | | | | 0 | 31 | 0/07/ | | | 0 | 31 | 1213 | 944 | 15 | 21/2 |
| TOTAL | 44514.6 | 28005 | /41 | | IOTAL | 40121 | 24215 | 624 | <u> </u> | TOTAL | 36876 | 20837 | 300 | | IOTAL | 38803 | 26612 | 523 | |
| Average | 1435.95 | 903.3870968 | 23.40323 | | Average | 133/.30/ | 001.1000/ | 20.8 | L | Average | 1187.548 | 0/2.10129 | 7.0//419 | | Average | 1201./1 | 000.45101 | 10.8/09/ | |
| | Dell | Clanused | Crustel | TOTAL | | Dell | Clanusad | Crustel | TOTAL | | Dell | Clanused | Countral | TOTAL | | Dell | Clanuaged | Crustel | TOTAL |
| 1 | 1024 | GIELIWOOD | Crystal 20 | 10F7 | 1 | 1055 | Gleriwoou | Crystal | 101AL | 1 | 1012 | GIEITWOOD | CI ystai | 101AL | 1 | 1407 | 61e11W000 | Ci ystai 20 | 10TAL 2047 |
| 2 | 020 | 703 | 20 | 1507 | 2 | 1005 | 034 | 0 | 1009 | 2 | 1202 | 740 | 20 | 2003 | 1 | 142/ | 724 | 20 | 2007 |
| 2 | 1041 | 122 | 3U 1F | 1002 | 2 | 2004 | 1010 | ^ | 201/ | 2 | 071 | 102 | 0 | 2109 | 2 | 1139 | 734 | 3 I 10 | 2102 |
| 3 | 1241 | 920 | 15 | 21/6 | 3 | 2000 | 1010 | 0 | 3010 | 3 | 9/1 | 000 | 0 | 2040 | 3 | 13/0 | /15 | ١٥ | 2103 |
| 4 | 2225 | 1974 | J | 0 | 4 | 1252 | 029 | 110 | 2304 | 4 | 1/72 | 26/ | 1 | 18/1 | 4 | 2722 | 152/ | 54 | 4221 |
| 6 | 1148 | 980 | ٥ | 2137 | 6 | 1021 | 870 | 28 | 1910 | 6 | 1473 | 504 | -+ | 041 | 6 | 152/ | 665 | 83 | 2070 |
| 7 | 10.82 | 977 | 0 | 1060 | 7 | 1115 | 852 | 11 | 1070 | 7 | 2805 | 1/101 | 30 | 4256 | 7 | 1324 | 671 | 15 | 20.34 |
| 2 8 | 1624 | 85/ | 0 | 2478 | R | 1520 | 915 | 12 | 2456 | 8 | 1102 | 707 | 20 | 1830 | 8 | 1210 | 650 | 43 | 1885 |
| 0 | 857 | 986 | 0 | 18/3 | 0 | .52) | /13 | 12 | L+30 | 0 | 1182 | 502 | 50 | 1825 | 0 | 1445 | 630 | 23 | 2112 |
| 10 | | , | | | | | 1050 | 34 | 4013 | 10 | | 996 | | | | | 400 | 47 | 2311 |
| 11 | 1206 | 996 | 0 | 2202 | 10 | 2129 | 1850 | | | 10 | 1644 | 000 | 31 | 2561 | 10 | 1565 | 099 | | 0 |
| | 1206 | 996 | 0 | 2202 | 10 | 2129 926 | 849 | 22 | 1797 | 10 | 1644 REMOVED | REMOVED | 31 REMOVED | 2561 0 | 10 | 1565 | 099 | | |
| 12 | 1206 | 996 | 0 | 2202 0 3575 | 10 11 12 | 2129 926 1048 | 849 | 22 | 1797 2103 | 10 | 1644 REMOVED 1358 | REMOVED 836 | 31 REMOVED 33 | 2561 0 2227 | 10 11 12 | 1565 2410 | 1231 | 78 | 3719 |
| 12 | 1206 1891 1356 | 996 1684 1067 | 0 | 2202 0 3575 2423 | 10 11 12 13 | 2129 926 1048 710 | 849 1005 1110 | 22 50 26 | 1797 2103 1846 | 10 11 12 13 | 1644 REMOVED 1358 | REMOVED 836 | 31 REMOVED 33 | 2561 0 2227 0 | 10 11 12 13 | 1565 2410 1688 | 1231 | 78 | 3719 |
| 12 13 14 | 1206 1891 1356 732 | 996 1684 1067 910 | 0 0 0 0 | 2202 0 3575 2423 1642 | 10 11 12 13 14 | 2129 926 1048 710 676 | 849 1005 1110 1388 | 22 50 26 28 | 1797 2103 1846 2092 | 10 11 12 13 14 | 1644 REMOVED 1358 2548 | 836 REMOVED 836 | 31 REMOVED 33 37 | 2561 0 2227 0 3978 | 10 11 12 13 14 | 1565 2410 1688 1677 | 1231 998 622 | 78 24 40 | 3719 2710 2339 |
| 12 13 14 15 | 1206 1891 1356 732 1194 | 996 1684 1067 910 831 | 0 0 0 25 | 2202 0 3575 2423 1642 2050 | 10 11 12 13 14 15 | 2129 926 1048 710 676 1134 | 849 1005 1110 1388 912 | 22 50 26 28 11 | 1797 2103 1846 2092 2057 | 10 11 12 13 14 15 | 1644 REMOVED 1358 2548 1261 | REMOVED 836 1393 413 | 31 REMOVED 33 37 51 | 2561 0 2227 0 3978 1725 | 10 11 12 13 14 15 | 1565 2410 1688 1677 1357 | 1231 998 622 686 | 78 24 40 56 | 3719 2710 2339 2099 |
| 12 13 14 15 16 | 1206 1891 1356 732 1194 879 | 996 1684 1067 910 831 1011 | 0 0 0 25 16 | 2202 0 3575 2423 1642 2050 1906 | 10 11 12 13 14 15 16 | 2129 926 1048 710 676 1134 | 849 1005 1110 1388 912 | 22 50 26 28 11 | 1797 2103 1846 2092 2057 0 | 10 11 12 13 14 15 16 | 1644 REMOVED 1358 2548 1261 1232 | 888 REMOVED 836 1393 413 645 | 31 REMOVED 33 37 51 34 | 2561 0 2227 0 3978 1725 1911 | 10 11 12 13 14 15 16 | 1565 2410 1688 1677 1357 1510 | 1231 998 622 686 669 | 78 24 40 56 23 | 3719 2710 2339 2099 2202 |
| 12 13 14 15 16 17 | 1206 1891 1356 732 1194 879 916 | 996 1684 1067 910 831 1011 830 | 0 0 0 25 16 7 | 2202 0 3575 2423 1642 2050 1906 1753 | 10 11 12 13 14 15 16 17 | 2129 926 1048 710 676 1134 1920 | 849 1005 1110 1388 912 2396 | 22 50 26 28 11 | 1797 2103 1846 2092 2057 0 4337 | 10 11 12 13 14 15 16 17 | 1644 REMOVED 1358 2548 1261 1232 1722 | 836 REMOVED 836 1393 413 645 632 | 31 REMOVED 33 37 51 34 37 | 2561 0 2227 0 3978 1725 1911 2391 | 10 11 12 13 14 15 16 17 | 1565 2410 1688 1677 1357 1510 1510 | 1231 998 622 686 669 564 | 78 24 40 56 23 32 | 3719 2710 2339 2099 2202 2106 |
| 12 13 14 15 16 17 18 | 1206 1891 1356 732 1194 879 916 | 996 1684 1067 910 831 1011 830 | 0 0 0 25 16 7 | 2202 0 3575 2423 1642 2050 1906 1753 0 | 10 11 12 13 14 15 16 17 18 | 2129 926 1048 710 676 1134 1920 1117 | 849 1005 1110 1388 912 2396 1150 | 22 50 26 28 11 21 42 | 1797 2103 1846 2092 2057 0 4337 2309 | 10 11 12 13 14 15 16 17 17 | 1644 REMOVED 1358 2548 1261 1232 1722 1292 | 836 REMOVED 836 1393 413 645 632 680 | 31 REMOVED 33 37 51 34 37 360 | 2561 0 2227 0 3978 1725 1911 2391 2332 | 10 11 12 13 14 15 16 17 18 | 1565 2410 1688 1677 1357 1510 1510 | 1231 998 622 686 669 564 | 78 24 40 56 23 32 | 3719 2710 2339 2099 2202 2106 0 |
| 12 13 14 15 16 17 17 18 19 | 1206 1891 1356 732 1194 879 916 1945 | 996 1684 1067 910 831 1011 830 1854 | 0 0 0 255 16 7 7 | 2202 0 3575 2423 1642 2050 1906 1753 0 3810 | 10 11 12 13 14 15 16 17 18 19 | 2129 926 1048 710 676 1134 1920 1117 937 | 849 1005 1110 1388 912 2396 1150 1125 | 222 500 266 288 111 211 422 355 | 1797 2103 1846 2092 2057 0 4337 2309 2097 | 10 11 12 13 14 15 16 17 18 19 | 1644 REMOVED 1358 2548 1261 1232 1722 1292 1497 | REMOVED 836 1393 413 645 632 680 703 | 31 REMOVED 33 37 51 34 37 360 63 | 2561 0 2227 0 3978 1725 1911 2391 2332 2263 | 10 11 12 13 14 15 16 17 17 18 19 | 1565 2410 1688 1677 1357 1510 1510 3101 | 1231 998 622 686 669 564 | 78 24 40 56 23 32 64 | 3719 2710 2339 2099 2202 2106 0 4814 |
| 12 13 14 15 16 17 17 18 19 20 | 1206 1891 1356 732 1194 879 916 | 996 1684 1067 910 831 1011 830 | 0 0 0 255 16 7 7 11 8 | 2202 0 3575 2423 1642 2050 1906 1753 0 3810 1857 | 10 11 12 13 14 15 16 17 17 18 19 20 | 2129 926 1048 710 676 1134 1920 1117 937 920 | 1850 849 1005 1110 1388 912 2396 1150 1125 1047 | 222 500 266 288 111 211 422 355 355 | 1797 2103 1846 2092 2057 0 4337 2309 2097 2002 | 10 11 12 13 14 15 16 17 18 19 20 | 1644 REMOVED 1358 2548 1261 1232 1722 1292 1497 | REMOVED 836 1393 413 645 632 680 703 | 31 REMOVED 33 37 51 34 37 360 63 | 2561 0 2227 0 3978 1725 1911 2391 2332 2263 0 | 10 11 12 13 14 15 16 17 17 18 19 20 | 1565 2410 1688 1677 1357 1510 1510 3101 1285 | 1231 998 622 686 669 564 1649 558 | 78 24 40 56 23 32 32 64 35 | 3719 2710 2339 2099 2202 2106 0 4814 1878 |
| 12 13 14 15 16 17 18 19 20 21 | 1206 1891 1356 732 1194 879 916 1945 984 1210 | 996 1684 1067 910 831 1011 830 | 0 0 0 255 16 7 7 11 8 0 | 2202 0 3575 2423 1642 2050 1906 1753 0 3810 1857 2025 | 10 11 12 13 14 15 16 17 18 19 20 21 | 2129 926 1048 710 676 1134 1920 1117 937 920 1315 | 1880 849 1005 1110 1388 912 2396 1150 1125 1047 1166 | 22 50 26 28 11 21 42 35 35 40 | 1797 2103 1846 2092 2057 0 4337 2309 2097 2002 2521 | 10 11 12 13 14 15 16 17 17 18 19 20 21 | 1644 REMOVED 1358 2548 1261 1232 1722 1292 1292 1497 2427 | REMOVED 836 1393 413 645 632 680 703 1748 | 31 REMOVED 33 37 51 34 37 360 63 60 0 | 2561 0 2227 0 3978 1725 1911 2391 2332 2263 0 4175 | 10 11 12 13 14 15 16 17 18 19 20 21 | 1565 2410 1688 1677 1357 1510 1510 3101 1285 1448 | 1231 998 622 686 669 564 1649 558 727 | 78 24 40 56 23 32 32 | 3719 2710 2339 2099 2202 2106 0 4814 1878 2203 |
| 12 13 14 15 16 16 17 18 19 20 21 21 22 | 1206 1891 1356 732 1194 879 916 1945 984 1210 989 | 996 1684 1067 910 831 1011 830 1854 865 8155 1186 | 0 0 0 255 16 7 11 11 8 0 0 | 2202 0 3575 2423 1642 2050 1906 1753 0 3810 1857 2025 2175 | 10 11 12 13 14 15 16 17 18 19 20 20 21 22 | 2129 926 1048 710 676 1134 1920 1117 937 920 1315 958 | 1850 849 1005 1110 1388 912 2396 1150 1125 1125 1047 1166 1319 | 22 50 26 28 11 42 35 35 40 32 | 1797 2103 1846 2092 2057 0 4337 2309 2097 2002 2521 2309 | 10 11 12 13 14 15 16 17 17 18 19 20 20 21 22 | 1644 REMOVED 1358 2548 1261 1232 1722 1292 1497 2427 1530 | REMOVED 836 1393 413 645 632 680 703 1748 502 | 31 <u>REMOVED</u> 33 37 51 34 37 360 63 63 0 0 | 2561 0 2227 0 3978 1725 1911 2391 2332 2263 2263 0 0 4175 2032 | 10 11 12 13 14 15 16 17 18 19 20 20 21 22 | 1565 2410 1688 1677 1357 1510 1510 3101 1285 1448 1037 | 1231 998 622 686 669 564 1649 558 727 696 | 78 24 40 56 23 32 32 | 3719 2710 2339 2099 2202 2106 0 4814 1878 2203 1733 |
| 12 13 14 15 16 16 17 18 19 20 21 21 22 22 23 | 1206 1891 1356 732 1194 879 916 1945 984 1210 989 1853 | 996 1684 1067 910 831 1011 830 | 0 0 0 25 16 7 11 8 0 0 0 0 | 2202 0 3575 2423 1642 2050 1906 1753 0 3810 1857 2025 2175 2175 2794 | 10 11 12 13 14 15 16 17 18 19 20 21 22 22 23 | 2129 926 1048 710 676 1134 1920 1117 937 920 1315 958 | 18850 849 1005 1110 1388 912 2396 1150 1125 1047 1166 1319 | 222 500 226 288 111 422 335 355 355 352 400 322 | 1797 2103 1846 2092 2057 0 4337 2309 2007 2002 2521 2309 0 | 10 11 12 13 13 14 15 16 17 17 18 19 20 21 21 22 23 | 1644 REMOVED 1358 2548 1261 1232 1722 1292 1497 | REMOVED 836 1393 413 645 632 680 703 1748 502 695 | 31 <u>REMOVED</u> 33 37 51 34 37 360 63 63 0 0 0 0 | 2561 0 2227 0 3978 1725 1911 2391 2332 2263 2263 0 0 4175 2032 1395 | 10 11 12 13 14 15 16 17 18 19 20 21 22 23 | 1565 2410 1688 1677 1357 1510 1510 3101 1285 1448 1037 1062 | 1231 998 622 686 669 564 1649 558 727 696 919 | 78 24 40 566 23 32 32 64 35 28 28 0 0 | 3719 2710 2339 2099 2202 2106 0 4814 1878 2203 1733 1981 |
| 12 13 14 15 16 17 17 18 19 20 21 22 23 23 24 | 1206 1891 1356 732 1194 879 916 | 996 1684 1067 910 831 1011 1011 830 | 0 0 0 255 166 7 7 111 8 8 0 0 0 0 0 0 0 0 0 0 0 | 2202 0 3575 2423 1642 2050 1906 1753 0 3810 1857 2025 2174 4 1571 | 10 11 12 13 14 15 16 6 17 17 18 19 20 21 21 22 23 3 24 | 2129 926 1048 710 676 1134 1920 1117 937 920 1315 958 2313 | 1830 849 1005 1110 1388 912 2396 1150 1125 1047 1166 1319 2436 | 22 50 26 28 111 21 42 35 35 35 40 32 96 | 1797 2103 1846 2092 2057 0 0 4337 2309 2097 2002 2521 2309 0 0 4845 | 10 11 12 13 14 15 16 17 17 18 19 20 21 22 23 23 24 | 1644 REMOVED 1358 2548 1261 1232 1722 1292 1497 2427 1530 700 1885 | REMOVED 836 1393 413 645 632 680 703 1748 502 695 736 | 31 REMOVED 33 37 51 34 37 360 63 63 0 0 0 0 0 0 | 2561 0 2227 0 3978 1725 1911 2332 2263 0 4175 2032 1395 2621 | 10 11 12 13 13 14 15 16 17 18 19 20 21 22 23 23 24 | 1565 2410 1688 1677 1357 1510 3101 1285 1448 1037 1062 | 1231 998 622 686 669 564 1649 558 727 696 919 871 | 78 24 40 566 23 32 32 64 35 28 0 0 0 0 | 3719 2710 2339 2099 2202 2106 0 4814 1878 2203 1733 1981 1966 |
| 12 13 14 15 16 17 17 18 19 20 21 21 22 23 24 24 25 | 1206 1891 13566 732 1194 879 916 | 996 1684 1067 910 831 1011 830 | 0 0 0 25 16 7 7 7 7 7 0 0 0 0 0 0 0 0 0 | 2202 0 3575 2423 1642 2050 1906 1753 0 3810 1857 2025 2175 2794 1571 0 | 10 11 12 13 14 15 16 17 17 18 19 9 20 21 22 23 24 24 25 | 2129 926 1048 7100 676 1134 1920 1117 937 920 1315 958 2313 1250 | 1850 849 1005 1110 1388 912 2396 1150 1125 1047 1166 1319 2436 780 | 222 500 266 288 287 287 287 287 287 287 287 287 287 | 1797 2103 1846 2092 2057 0 4337 2309 2097 2002 2521 2309 0 0 4845 2030 | 10 11 12 13 14 15 16 16 17 18 19 20 21 22 23 24 25 24 25 | 1644 REMOVED 2548 1261 1232 1722 1292 1497 2427 1530 700 1885 1227 | REMOVED 836 1393 413 645 632 680 703 1748 502 695 736 650 | 31 REMOVED 33 37 51 34 37 360 63 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2561 0 2227 0 3978 1725 1911 2391 2362 2263 0 4175 2032 1395 2621 1877 | 10 11 12 13 13 14 15 16 16 17 18 19 20 20 21 22 23 24 24 25 | 1565 2410 1688 1677 1357 1510 3101 1285 1448 1037 1062 1095 | 1231 998 622 686 669 564 1649 558 727 696 919 871 | 78 24 40 56 23 32 32 64 35 28 0 0 0 | 3719 2710 2339 2099 2202 2106 0 4814 1878 2203 1733 1981 1966 0 0 |
| 12 13 14 15 16 17 17 20 20 21 22 23 24 24 25 26 | 1206 1891 1356 732 1194 879 916 | 996 1684 1067 9100 831 1011 8300 1854 865 815 1186 941 784 2124 | 0 0 0 25 16 7 7 11 8 0 0 0 0 0 0 0 0 0 0 | 2202 0 3575 2423 1642 2050 1906 1753 0 3810 3810 3810 3810 2025 2175 2794 1571 0 0 3989 | 10 11 12 13 14 15 16 17 7 18 19 20 21 22 23 24 25 26 | 2129 926 1048 710 676 1134 1920 1117 937 920 1315 958 2313 1250 1233 | 8499 8499 1005 1110 1388 912 2396 1150 1125 1047 1166 1319 2436 7800 7800 7403 | 222 500 266 288 111 211 422 355 355 400 322 996 00000 | 1797 2103 1846 2092 2057 0 0 4337 2309 2097 2002 2521 2309 0 0 4845 2030 0 2636 | 10 11 11 12 13 14 15 16 17 18 19 20 21 1 22 23 24 25 26 6 | 1644 REMOVED 1358 2548 1261 1232 1722 1292 1497 2427 1530 700 1885 1227 1317 | REMOVED 836 1393 413 645 632 680 703 703 703 703 703 703 703 703 703 70 | 31 REMOVED 33 37 51 34 37 360 63 63 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2561 0 2227 0 3978 1725 1911 2391 2363 0 4175 2032 1395 2621 1877 2661 | 10 11 12 13 13 14 15 16 17 7 18 20 21 20 21 22 23 24 25 26 | 1565 2410 1688 1677 1357 1510 1510 3101 1285 1448 1037 1062 1095 2493 | 1231 998 622 686 669 564 1649 558 727 696 919 871 2074 | 78 244 40 56 23 32 32 64 35 28 0 0 0 0 0 | 3719 2710 2339 2099 2202 2106 0 4814 1878 2203 1733 1981 1966 0 0 4567 |
| 12 13 14 15 16 17 8 19 20 21 22 23 23 24 24 25 26 26 27 | 1206 1891 1356 732 1194 879 916 | 996 1684 1067 910 831 1011 1011 1854 865 815 1186 941 784 2124 912 | 0 0 0 255 16 7 7 11 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2202 0 3575 2423 1642 2050 1906 1753 0 3810 1857 2025 2175 2175 2175 2175 2175 2175 21794 1571 0 3989 3989 | 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 22 23 24 25 26 27 | 2129 926 1048 710 676 1134 | 849 849 1005 1110 1388 912 2396 1125 1047 1125 1047 1166 1319 2436 780 1403 740 | 222 500 266 288 311 211 422 355 355 355 353 32 966 0 0 0 0 0 0 0 0 0 0 0 | 1797 2103 1846 2092 2057 0 3099 2097 2002 2521 23099 0 4845 2030 2636 2123 | 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 266 27 | 1644 REMOVED 1358 2548 1261 1232 1722 1292 1497 | REMOVED 836 1393 413 645 632 680 703 1748 502 695 736 650 1344 | 31 REMOVED 33 37 51 34 37 360 63 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2561 0 2227 0 3978 1725 1911 2391 2332 2263 0 4175 2032 1395 2621 1877 2621 1877 2661 0 | 10 11 12 13 14 15 16 17 7 18 19 20 21 22 23 23 24 24 25 26 6 27 | 1565 2410 1688 1677 1357 1510 1510 3101 1285 1448 1037 1062 1095 | 1231 998 622 686 669 564 1649 558 727 696 919 919 871 2074 679 | 78 24 40 56 23 322 64 35 28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 3719 2710 2339 2009 2202 2106 0 4814 1878 2203 1733 1981 1966 0 0 4567 1578 |
| 12 13 14 15 5 16 17 18 19 9 20 21 20 21 22 3 24 25 26 27 28 | 1206 1891 1356 732 1194 879 916 | 996 1684 1067 910 831 1011 830 | 0 0 0 25 166 7 7 7 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2202 0 3575 2423 2050 1906 1753 0 3810 3810 1857 2025 2175 2794 1571 0 0 3989 1937 1938 | 10 11 12 13 14 15 16 17 7 18 19 20 0 21 21 22 23 24 4 25 26 27 28 | 2129 926 1048 710 676 1113 1920 1117 937 920 1315 958 2313 1250 1233 1250 1233 1383 | 1830 849 1005 1110 1388 912 2396 1150 1125 1047 1156 1319 2436 780 1403 740 | 222 500 266 288 311 40 355 355 355 355 355 355 400 0 0 0 0 0 0 0 0 0 0 0 0 | 1797 2103 1846 2092 2057 2002 2521 2309 0 0 24845 2030 2636 2030 2636 2123 2721 | 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 | 1644 REMOVED 1358 2548 1261 1232 1722 1292 1497 2427 1530 700 700 1885 1227 1317 1966 | REMOVED 836 1393 413 645 632 680 703 703 1748 502 695 736 650 1344 2213 | 31 REMOVED 33 37 51 34 34 37 360 63 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2561 0 2227 0 3978 1725 1911 2332 2263 0 4175 2032 2023 2025 2621 1877 2621 1877 2621 0 0 4179 | 10 11 12 13 13 14 16 16 17 17 18 19 20 20 21 22 23 24 25 26 27 28 | 1565 2410 1688 1677 1510 1510 3101 1285 1448 1037 1062 1095 2493 899 1180 | 1231 998 622 686 669 554 1649 558 727 696 919 871 2074 679 901 | 78 24 40 56 233 332 45 5 28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 3719 2710 2339 2099 2202 2106 0 4814 1878 2203 1733 1981 1966 0 4567 1578 2081 |
| 12 13 14 15 16 16 17 18 19 20 21 22 23 24 25 26 27 28 29 | 1206 1891 1356 732 1194 879 916 1945 984 1210 989 1853 787 1865 1025 1128 1021 | 996 1684 1067 9100 831 1011 8300 1854 865 815 1186 941 784 2124 912 8100 1136 | 0 0 0 255 166 7 7 111 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2202 0 3575 2423 1642 2050 1906 1753 0 0 3810 1857 2275 2175 2794 1571 0 9 3989 1937 1938 2157 | 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 29 | 2129 926 1048 710 676 1134 | 8499 1005 1110 1388 912 2396 1150 1125 1047 1150 1125 1047 1166 1319 2436 7800 1403 740 1116 780 | 222 500 266 288 111 422 355 355 400 322 996 0 0 0 0 0 0 0 0 0 5 1 | 1797 2103 1846 2092 2057 0 2097 2002 2521 2309 0 0 4845 2030 2636 2123 2721 2721 | 10 11 11 12 13 14 15 16 16 17 18 19 20 21 22 23 24 25 26 27 28 29 29 29 | 1644 REMOVED 1358 2548 1261 1232 1722 1292 1497 700 1885 1227 1317 1317 1966 1077 | REMOVED 836 1393 413 413 413 432 645 632 680 703 703 703 703 703 705 736 650 1344 736 650 1344 736 736 736 736 736 736 736 736 | 31 REMOVED 333 51 34 34 37 360 63 63 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2561 0 2227 0 3978 1725 1911 2332 2263 0 0 4175 2032 1395 2661 1877 2661 0 4179 2019 | 10 11 12 13 13 14 15 5 16 17 18 19 20 21 22 23 23 24 25 5 26 27 27 28 29 | 1565 2410 1688 1677 1357 1510 3101 1285 1448 1037 1062 1095 2493 899 1180 1181 | 1231 998 622 686 669 564 1649 558 727 696 919 871 | 78 24 40 56 23 322 64 35 28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 3719 2710 2339 2099 2202 2106 0 4814 1878 2203 1733 1981 1966 0 4567 1578 2081 2114 |
| 12 13 14 15 16 17 20 21 22 23 24 25 26 27 28 29 30 | 1206 1891 1356 732 1194 879 916 1945 984 1210 989 1853 787 1865 1025 1128 1021 1447 | 996 1684 1067 910 831 1011 830 | 0 0 0 25 16 7 7 11 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2202 0 3575 2423 1642 2050 1753 0 38100 38100 38100 38100 38100 38107 3989 9 1937 1938 2157 2055 2157 2055 2157 2055 2056 2050 2050 2050 2050 2050 2050 | 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 6 27 28 29 30 | 2129 926 1048 710 676 1134 1920 1315 937 920 1315 958 2313 1250 1233 1383 1605 1291 | 1830 849 1005 1110 1388 912 2396 1150 1125 1047 1166 1319 2436 780 1403 7400 1116 780 | 222 500 266 288 111 422 355 355 400 322 966 0 0 0 0 0 0 0 51 | 1797 2103 18464 2092 2057 0 2309 2097 2309 2097 2309 0 0 4845 2030 26366 26366 2123 2721 2122 0 0 0 0 0 0 0 0 0 0 0 0 0 | 10 11 11 12 13 14 15 16 17 18 19 20 21 22 23 24 24 25 26 6 27 28 29 30 | 1644 REMOVED 1358 22548 1261 1232 17222 1292 1497 2427 1530 7000 1885 1227 1317 1966 1077 1493 | REMOVED 336 337 413 413 413 455 632 680 703 703 703 703 703 703 645 650 1344 2213 2213 942 915 | 31 REMOVED 33 37 37 360 63 63 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2561 0 2227 1725 1911 2391 2391 2391 2391 2391 2032 2621 1877 2661 1877 2661 0 0 4179 2019 2408 | 10 11 12 13 14 15 16 17 18 19 20 21 222 23 24 25 26 6 27 28 29 30 | 1565 2410 1688 1677 1510 1510 3101 1285 1448 1037 1062 1095 2493 899 1180 1183 1032 | 1231 998 622 686 669 564 1649 558 727 696 919 918 871 2074 679 901 928 872 | 78 24 40 56 23 32 32 64 35 28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 3 3 24 | 3719 2710 2339 2002 2106 0 0 4814 1878 2203 1733 1981 1966 0 0 0 578 2081 2081 2114 2114 |
| 12 13 14 15 16 16 17 18 19 20 21 22 23 24 4 25 26 27 28 24 25 26 27 7 28 8 29 30 | 1206 1891 1356 732 1194 879 916 | 996 1684 1067 910 831 1011 830 1854 865 815 1186 941 784 2124 912 810 1136 648 | 0 0 0 255 16 7 7 11 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2202 0 33755 2423 1642 2050 0 1906 1753 2025 2794 1571 0 1937 1937 1938 2157 2095 0 0 | 10 11 12 13 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 224 25 26 27 28 29 30 31 | 2129 926 1048 710 676 1134 1920 1117 937 920 1117 937 920 1315 958 2313 1250 1233 1325 1233 1405 1291 | 1830 849 1005 1110 2396 1150 1125 1047 1166 780 1403 740 780 11157 | 222 500 266 288 311 422 355 355 355 400 322 966 00 00 00 00 00 00 72 | 1797 2103 1846 2092 2057 0 2309 2097 2002 2521 2309 0 0 2652 2030 2030 2030 2030 2030 2032 2030 2032 2030 2032 2030 2032 2030 2032 2030 2032 20 | 10 11 11 12 13 14 15 16 17 18 19 20 21 1 22 23 24 25 26 27 28 29 29 30 31 | 1644 REMOVED 1358 2548 1261 1232 1722 1292 1497 2427 1530 700 1885 1227 1317 | REMOVED 336 1393 413 413 413 413 413 413 413 41 | 31 REMOVED 33 37 51 34 34 37 360 63 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2561 0 2227 0 3978 1715 2332 2332 2332 2032 4175 2032 1395 2621 1877 2661 1877 2661 0 0 4179 2019 2019 2019 2019 2019 2019 2019 201 | 10 11 11 12 13 14 15 16 16 16 17 18 20 21 22 23 24 4 25 26 27 22 26 227 28 29 30 31 | 1565 2410 1688 1677 1557 1510 3101 1285 1448 1037 1062 2493 8999 1180 1183 1032 1136 | 1231 998 622 686 669 564 1649 558 727 727 871 871 2074 679 696 696 697 871 901 901 901 9028 872 901 | 78 24 40 566 23 32 32 64 35 28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 3719 2710 2339 2002 2106 0 0 2106 0 1878 2203 1733 1733 1981 1966 0 4567 1578 2081 2114 2114 2114 2114 2081 2114 |
| 12 13 14 15 16 17 7 18 19 20 21 21 22 23 24 24 25 26 6 27 27 28 29 9 30 31 1 10 7A | 1206 1891 1356 732 1194 879 984 1210 989 1853 787 1865 1025 1128 1021 1447 32470 | 996 | 0 0 0 255 16 7 7 11 8 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2202 0 3375 2423 1642 2050 1753 0 3810 1857 2075 2794 1571 0 3989 1937 1938 2155 2795 0 0 | 10 11 12 13 14 15 16 17 17 18 20 20 21 22 23 23 24 25 26 27 28 29 9 30 31 TOTAL | 2129 926 1048 710 676 676 1134 1920 1117 920 1315 958 2313 1250 1233 1383 1605 1291 2014 2014 | 1830 849 1005 1110 1388 912 2396 1150 1175 1400 1157 31050 | 222 500 266 288 355 355 400 322 966 0 0 0 0 0 0 0 0 0 72 765 | 1797 2103 1846 2092 2057 2309 2007 2309 0 0 4845 2030 2030 2030 2030 2030 2030 2030 203 | 10 11 11 12 13 14 15 16 17 18 19 20 21 21 22 23 24 24 25 26 27 27 28 29 30 31 TOTAL | 1644 REMOVED 1358 25548 1261 1232 1722 1292 1497 2427 1530 700 1885 1227 1317 1966 1077 1493 38370 | REMOVED 336 337 413 413 413 413 413 413 413 414 414 2213 942 915 22705 | 31 REMOVED 33 37 35 1 34 37 360 63 63 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 2561 0 22277 1911 2391 2391 2362 2052 1395 2621 1877 2661 0 4175 2661 0 4179 2019 2019 2408 0 | 10 111 12 13 14 15 16 17 7 20 21 22 23 24 24 22 23 24 24 22 23 24 24 26 26 29 9 30 31 TOTAL | 1565 2410 1688 1677 1357 1510 1510 1285 1448 1037 1062 1095 2493 899 1180 1183 1032 1136 | 1231 998 622 686 6699 554 558 7277 696 696 919 871 2074 679 901 9288 872 901 2074 2472 | 78 24 40 56 23 32 | 3719 2710 2339 2002 2106 0 4814 1878 2203 1733 1981 1966 0 4567 1578 2081 2114 2114 1928 2060 |



See page 4 for instructions.

| . General Information for | or the Month/Year of: January, 2021 | | | | | |
|--|---|--------------------------|----------------------------|-------------------|------------------------|-------|
| A. Public Water System (F | WS) Information | | | | | |
| PWS Name: CITY | OF AVON PARK | | PWS Identification Num | ber: 628 | 0049 | |
| PWS Type: 🗸 Con | nmunity Non-Transient Non-Community | Transient Non-Commun | ity Consecutiv | e | | |
| Number of Service Con | mections at End of Month: 7037 | Total I | Population Served at End | of Month: | 18561 | |
| PWS Owner: CITY | OF AVON PARK | | | | | |
| Contact Person: Jonath | nan Delgado | Contac | t Person's Title: | Lead Plant Op | perator | |
| Contact Person's Mailin | ig Address: 2504 U.S. 27 SOUTH | City: | AVON PARK | State: FL | Zip Code | 33825 |
| Contact Person's Teleph | 10ne Number: 863-443-1806 | Contac | t Person's Fax Number: | 863-452-1078 | | |
| Contact Person's E-Mai | Address: operator@avonpark.cc | | | | | |
| 3. Water Treatment Plant | Information | | | | | |
| Plant Name: BELL | . STREET WATER PLANT #1 | | Plant Telephone Number | : 863-443-1806 | | |
| Plant Address: 1350 | W. BELL STREET | City: | AVON PARK | State: FL | Zip Code | 33825 |
| Type of Water Treated | by Plant: 🔄 Raw Ground Water 🔄 P | Purchased Finished Water | | | | |
| Permitted Maximum Da | y Operating Capacity of Plant, gallons per day: | 5,300,000 | | | | |
| Plant Category (per sub | section 62-699.310(4), F.A.C.): 4 | Plant C | lass (per subsection 62-69 | 99.310(4), F.A.C. |): C | |
| Licensed Operators | Name | License Class | License Number | I | Day(s)/Shift(s) Worked | |
| Lead/Chief Operator: | Jonathan Delgado | С | 20135 | | 6 days per week | |
| Other Operators: | | | | | | |
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| And the second second second second | l | | | | | |
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| A REAL PROPERTY AND A REAL | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555 900(3) Effective August 28, 2003 Jonathan Delgado Printed or Typed Name

20135 License Number

02/04/21

| PWS I | dentificatio | on Number: | 6280049 | | | 1 | | BELL ST | REET WA | TER PLA | NT #1 | | |
|---------------|-------------------|-----------------------------------|-------------|---|---|---|-----------------------|--------------------|---------------------------------------|--|--|--|---|
| III. D | aily Data f | or the Month | /Year of: | January, 2021 | | | | | | | | | |
| Means | of Achiev | ing Four-Log | Virus Inact | ivation/Removal: | * 🗸 Free | Chlorine | | Chlorine Dio | xide | Ozone | Con | nbine Chlorine (C | horamines) |
| Ult | raviolet Radi | ation | Other (D | Describe): | | | | | | | | | |
| Type of | of Disinfect | ant Residual N | Maintained | in Distribution S | ystem: 🔽 | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dio | xide |
| | Section 1 | | | CT Calculations | , or UV Dose, to | Demonstrate I | our-Log | Virus Inactive | ation, if App | icable* | - | | |
| A STREET | 1.1.2.2.2 | Server 201 | | 1 | CT Calcu | lations | - | | 1 | UV | Dose | | |
| Day of the | Hours Plant in | Net Quantity of Finished Water | Peak Flow | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During | (T) at C Measurement Point During Peak Flow, | Provided Before or at First Customer During | Temp. of Water, | pH of Water, if | Minimum CT Required, | Lowest Operating UV Dose, mW- | Minimum UV Dose Required, mW- | Lowest Residual Disinfectant Concentration at Remote Point in Distribution | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System |
| Month | Operation | Produced, gal | Rate, gpd | Peak Flow, mg/L | minutes | Peak Flow, | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation |
| 1 | 24 | 1,214,000 | | | | | | | | | | 1.8 | |
| 2 | 24 | 2 002 000 | | | | | | | | | | 10 | |
| 3 | 24 | 3,093,000 | | | | | | | | | - | 1.9 | |
| 4 | 24 | 1,487,000 | | | | | | | | | | 1.8 | |
| 5 | 24 | 1,453,000 | _ | | | | | | | | | 1.9 | |
| 6 | 24 | 1,065,000 | | | | | | | | | | 1.8 | |
| 7 | 24 | 1,063,000 | | | | | | | | | | 1.9 | |
| 8 | 24 | 1,160,000 | | | | | | | | | | 3.6 | |
| 9 | 24 | | _ | | | | | | | | | | |
| 10 | 24 | 2,359,000 | | | | | | | | | | 2.0 | |
| 11 | 24 | 1,471,000 | _ | | | _ | | | | | 9 | 1.8 | |
| 12 | 24 | 1,219,000 | _ | | | _ | - | | | | | 2.0 | |
| 13 | 24 | 1,260,000 | _ | | | | | | | | | 2.1 | |
| 14 | 24 | 1,221,000 | | | | | | | | | | 2.3 | |
| 15 | 24 | 1,283,000 | | | | | | | | | | 2.4 | |
| 16 | 24 | | _ | | | | | - | | | | 0.5 | |
| 17 | 24 | 2,432,000 | | | | | | | | | | 2.5 | |
| 18 | 24 | 1,012,000 | | | | | | | | | | 1.6 | |
| 19 | 24 | 1,410,000 | | | | | | _ | | | | 2.8 | |
| 20 | 24 | 1,447,000 | | | | | | | | | | 2.5 | |
| 21 | 24 | 1,089,000 | | | | | | | | | | 2.7 | |
| 22 | 24 | 1,128,000 | | | | | | | | | | | |
| 23 | 24 | | | | | | 3 | | | | | 2.0 | |
| 24 | 24 | 2,701,000 | | | | | | | | | | 2.1 | |
| 25 | 24 | 1,455,000 | | | | | | | | | | 2.0 | |
| 26 | 24 | 1,322,000 | | | | | | | | | | 2.2 | |
| 27 | 24 | 1,333,000 | | | | | | | · · · · · · · · · · · · · · · · · · · | | | 2.4 | |
| 28 | 24 | 1,100,000 | | | | | | | | | | 2.9 | |
| 29 | 24 | 1,163,000 | | | | | | | | | | 1.0 | |
| 30 | 24 | | | | | | | | | | | 2.0 | |
| Total | 24 | 2,662,000 | | | | | | |] | | | 2.0 | |
| Average | | 1 523 154 | | | | | | | | | | | |
| Maximur | n | 3,093,000 | | | | | | | | | | | |

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6280049 | Plant Name: | BELL STREET | WATER PLANT #1 | |
|-------|--|---|--------------------------|----------------------------|---|------|
| IV. S | ummary of Use of Poly | mer Containing Acrylamide, Polymer | Containing Epichlo | orohydrin, and l | ron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | | | | √ No | Yes, and the polymer dose and the acrylamide level in the polymer are as follow | ws: |
| | Polymer Dose, ppm= | | | Acrylamide Lev | $vel, \%^{\dagger} =$ | |
| Β. | Is any polymer contain are as follows: | ing the monomer epichlorohydrin used | at the water treatmen | t plant? 🔽 | No Yes, and the polymer dose and the epichlorohydrin level in the polymer | |
| | Polymer Dose, ppm= | | | Epichlorohydrin | Level, $\%^{\dagger} =$ | |
| C. | Is any iron or mangane | se sequestrant used at the water treatme | nt plant? | o 📝 Yes, and | the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (p | olyphosphate or sodium silicate): | polyphosphate | | | |
| | Sequestrant Dose, mg/ | L of phosphate as PO4 or mg/L of silica | te as $SiO_2 =$ | 0.92143 mg/l | | |
| | If sodium silicate is use | ed, the amount of added plus naturally of | occurring silicate, in n | ng/L as SiO ₂ = | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

† Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



See page 4 for instructions

MONTHLY OPERATION REPORT FOR PWSs TREATING RAW GROUND WATER OR PURCHASED FINISHED WATER

| see page 4 for mor detions. | | | | | | |
|-----------------------------|---|-------------------------|-----------------------------|--------------------|----------------------|---------|
| I. General Information for | r the Month/Year of: January, 2021 | | | | | |
| A. Public Water System (F | WS) Information | | | | | |
| PWS Name: CITY | OF AVON PARK | | PWS Identification Num | ber: 62800 | 49 | |
| PWS Type: 🗹 Con | nmunity Non-Transient Non-Community | Transient Non-Commu | hity Consecutive | 9 | | |
| Number of Service Con | nections at End of Month: 7037 | Total | Population Served at End c | of Month: | 18561 | |
| PWS Owner: CITY | OF AVON PARK | | | | | |
| Contact Person: Jonath | ian Delgado | Conta | ct Person's Title: | Lead Plant Open | rator | |
| Contact Person's Mailin | g Address: 2504 U.S. 27 SOUTH | City: | AVON PARK | State: FL | Zip Code: | 33825 |
| Contact Person's Teleph | ione Number: 863-443-1806 | Conta | ct Person's Fax Number: | 863-452-1078 | | |
| Contact Person's E-Mai | Address: operator@avonpark.cc | | | | | |
| B. Water Treatment Plant | Information | | | | | |
| Plant Name: GLEN | JWOOD WATER PLANT #2 | | Plant Telephone Number | : 863-443-1806 | | |
| Plant Address: 100 S | . GLENWOOD AVENUE | City: | AVON PARK | State: FL | Zip Code: | 33825 |
| Type of Water Treated | by Plant: 🔄 Raw Ground Water 🗌 P | urchased Finished Water | | | 1914 - MI | |
| Permitted Maximum Da | y Operating Capacity of Plant, gallons per day: | 1,700,000 | | | | |
| Plant Category (per sub | section 62-699.310(4), F.A.C.): 5 | Plant | Class (per subsection 62-69 | 9.310(4), F.A.C.): | C | |
| Licensed Operators | Name | License Class | License Number | Day | y(s)/Shift(s) Worked | and and |
| Lead Operator: | Jonathan Delgado | C | 20135 | | 6 days per week | |
| Other Operators: | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

DEP Form 62-555 900(3) Effective August 28, 2003 02/04/21 Jonathan Delgado Printed or Typed Name 20135 License Number

| PWS I | dentificatio | on Number: | 6280049 | | | Plant Nam | ne: | GLENWO | DOD WAT | ER PLAN | VT #2 | | |
|------------------------|--------------------------------|--|------------------------|--|--|---|-----------------------------|----------------------------------|--|---|---|--|--|
| III. Da | ily Data f | or the Month | /Year of: | January, 2021 | | | | | | | | | |
| Means | of Achiev | ing Four-Log | Virus Inact | ivation/Removal: | * 🗸 Free | Chlorine | | Chlorine Dio | xide [| Ozone | Con | bine Chlorine (C | horamines) |
| Type o | f Disinfect | tant Residual I | Maintained | in Distribution S | vstem: | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dio | xide |
| 1.7000 | | | | CT Calculations | or UV Dose, to | Demonstrate I | our-Log | Virus Inactiv | ation, if App | licable* | | 1217 CAR 12 CAN | |
| 100 | SALETS PA | Line second the | | | CT Calcu | lations | | | | UV | Dose | | |
| Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Contact Time (T) at C Measurement Point During Peak Flow, minutes | Provided Before or at First Customer During Peak Flow, | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | 444,000 | | | | | | | | | | 1.9 | |
| 2 | 24 | | | | | | | | | | | | |
| 3 | 24 | 1,220,000 | | | | | | | | | | 1.7 | |
| 4 | 24 | 608,000 | | | | | | | | | | 1.6 | |
| 5 | 24 | 431,000 | 1 | | | | | | | | | 1.8 | |
| 6 | 24 | 852,000 | | | | | | | | | | 1.7 | |
| 7 | 24 | 696,000 | | | | | | | | | | 1.8 | |
| 8 | 24 | 739,000 | | | | | | | | | | 1.6 | |
| 9 | 24 | | | | | | | 1 | | | | | |
| 10 | 24 | 1,215,000 | | | | | | | | - | 1 | 1.9 | |
| 11 | 24 | 823,000 | | | | | | - | | | | 1.4 | |
| 12 | 24 | 878,000 | | | | | | | | | | 1.4 | |
| 13 | 24 | 780,000 | | | | | | | | | _ | 1.4 | |
| 14 | 24 | 702,000 | | | | | | | | | | 2.0 | |
| 15 | 24 | 788,000 | | | | | | | | | | 1.8 | |
| 16 | 24 | | | | | | | | | | | | |
| 17 | 24 | 1,481,000 | | | | | | | | | | 1.5 | |
| 18 | 24 | 520,000 | | | | | | | | | | 1.5 | 2 |
| 19 | 24 | 1,090,000 | | | | | | | | | | 1.7 | |
| 20 | 24 | 595,000 | | | | | | | | | | 2.0 | |
| 21 | 24 | 944,000 | | | | | | | | | | 1.8 | |
| 22 | 24 | 788,000 | | | | | | | | | | 1.8 | |
| 23 | 24 | | | | | | | | | | | | |
| 24 | 24 | 1,538,000 | | | | | | | | 0 | | 2.3 | |
| 25 | 24 | 786,000 | | | | | | | | | | 2.5 | |
| 26 | 24 | 911,000 | | | | | | | | | | 2.1 | |
| 27 | 24 | 822,000 | | | | | | | | | | 2.1 | |
| 28 | 24 | 393,000 | | | | | | | | | | 2.0 | |
| 29 | 24 | 804,000 | | | | | | | | | | 2.1 | |
| 30 | 24 | | | | | | | | | | | | |
| 31 | 24 | 1,608,000 | | · · · · · · · · · · · · · · · · · · · | | | | | | | | 2.3 | |
| Total | | 22,456,000 | | | | | | | | | | | |
| Average | | 863,692 | | | | | | | | | | | |
| Maximun | 1 | 1,608,000 | | | | | | | | | | | |

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6280049 Pla | int Name: | GLENWOOD WATER PLANT #2 | |
|-------|--|---|-----------------|---|------|
| IV. S | ummary of Use of Poly | mer Containing Acrylamide, Polymer Conta | ining Epich | lorohydrin, and Iron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | Is any polymer contain | ing the monomer acrylamide used at the water | treatment pla | ant? No Yes, and the polymer dose and the acrylamide level in the polymer are as follows: | |
| | Polymer Dose, ppm= | | | Acrylamide Level, $\%^* =$ | |
| B. | Is any polymer contain are as follows: | ing the monomer <u>epichlorohydrin</u> used at the v | vater treatme | nt plant? I No Yes, and the polymer dose and the epichlorohydrin level in the polymer | |
| | Polymer Dose, ppm= | | | Epichlorohydrin Level, $\%^{\dagger} =$ | |
| C. | Is any iron or mangane | se sequestrant used at the water treatment plan | t? 🔽 ! | No Section Yes, and the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (p | olyphosphate or sodium silicate): | | | |
| | Sequestrant Dose, mg/ | L of phosphate as PO ₄ or mg/L of silicate as Si | $O_2 =$ | 2.28387 mg/L | |
| | If sodium silicate is us | ed, the amount of added plus naturally occurrin | ng silicate, in | mg/L as $SiO_2 =$ | |
| | 12-2 | | 14 | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



| Se | e page 4 for instructions | ÷ | | | | | | | | | |
|----|------------------------------|--|-------------------------|-------------------------------|-------------------------|----------------------|-------|--|--|--|--|
| I. | General Information f | or the Month/Year of: January, 202 | 1 | | | | | | | | |
| A. | Public Water System (I | PWS) Information | | | | | | | | | |
| | PWS Name: CRY | STAL LAKE WATER PLANT #7 | | PWS Identification | Number: 62800 |)49 | | | | | |
| | PWS Type: 🗹 Con | mmunity Non-Transient Non-Community | Transient Non- | Community Conse | ecutive | | | | | | |
| | Number of Service Con | anections at End of Month: 506 | | Total Population Served at I | End of Month: | 800 | | | | | |
| | PWS Owner: CITY | OF AVON PARK | | | | | | | | | |
| | Contact Person: Jonat | han Delgado | | Contact Person's Title: | Lead Plant Ope | rator | | | | | |
| | Contact Person's Mailin | ng Address: 2504 U.S. 27 SOUTH | | City: AVON PARK | State: FL | Zip Code: | 33825 | | | | |
| | Contact Person's Telep | hone Number: 863-443-1806 | | Contact Person's Fax Number | er: 863-452-1078 | | | | | | |
| | Contact Person's E-Ma | il Address: <u>operator@avonpark.cc</u> | | | | | | | | | |
| Β. | Water Treatment Plant | Information | | | | | | | | | |
| | Plant Name: CRY | STAL LAKE WATER PLANT #7 | | Plant Telephone Nu | mber: 863-443-1806 | | | | | | |
| | Plant Address: | | | City: AVON PARK | State: FL | Zip Code: | 33825 | | | | |
| | Type of Water Treated | by Plant: 🔄 Raw Ground Water | Purchased Finished Wate | er | | | | | | | |
| | Permitted Maximum Da | ay Operating Capacity of Plant, gallons per day: | : 500,000 | 500,000 | | | | | | | |
| | Plant Category (per sub | section 62-699.310(4), F.A.C.): 5 | | Plant Class (per subsection 6 | 52-699.310(4), F.A.C.): | , F.A.C.): C | | | | | |
| | Licensed Operators | Name | License Cla | ass License Numb | er Da | y(s)/Shift(s) Worked | | | | | |
| | Lead/Chief Operator: | Jonathan Delgado | C | 20135 | | 6 days per week | | | | | |
| | Other Operators: | | | | | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555 900(3) Effective August 28, 2003 02/04/21 Jonathan Delgado

Printed or Typed Name

20135 License Number

| Du Dutly Duth of reflex Neurolly Year of E January, 2021 Chans of Achieven Four-Loc Yuma (Four-Loc Yuma) Free Oborne Combre Clorente (Commines) Combre Clorente (Commines) Type of Disinfectant Riskulua Manimusch in Distribution System: Free Oborne Combre Clorente (Commines) Order Decode CC Clockatoms Urbes: Decomptone Clorente (Commines) Order Decode Urbes: Decomptone Clorente (Commines) Invest Riskula Manimusch in Distribution System: Encrete Riskula Manimusch (Commines) Invest Riskula Manimusch (Commines) <td< th=""><th>PWSI</th><th>dentificatio</th><th>on Number:</th><th>6284111</th><th></th><th></th><th>Plant Nan</th><th>ne:</th><th>Crystal La</th><th>ake Club</th><th></th><th></th><th></th><th></th></td<> | PWSI | dentificatio | on Number: | 6284111 | | | Plant Nan | ne: | Crystal La | ake Club | | | | |
|--|------------------------|--------------------------------|--|------------------------|--|---|--|-----------------------------|----------------------------------|--|---|---|--|--|
| Means of Achieving Four-Log Vinds Indefension/Removal: * Image: Problem in the Problem | III. D | aily Data f | or the Month | /Year of: | January, 2021 | | | | | | | | | |
| Image: construction of the construction of | Means | of Achiev | ing Four-Log | Virus Inact | ivation/Removal: | * Free | Chlorine | | Chlorine Dio | xide | Ozone | Con | nbine Chlorine (C | horamines) |
| Type of Disinfectant Residual Multaniane in Distribution System: | Ult | raviolet Radi | ation | Other (D | Describe): | | | transf. | | 10 | | | | |
| Day of Hours Pain Cf Calculations, of V Does, Demendance For-Log Yuns Instruction, df Argeboulds UV Does Lowest Residant Deside faint Day of Hours Pain Net Quantity of Instruction (C) Disidefaint | Type o | of Disinfect | tant Residual M | Maintained | in Distribution S | ystem: | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dio | xide |
| Image: Properties of the sector of | | - | F WE KON | | CT Calculations | or UV Dose, to | Demonstrate | Four-Log | Virus Inactiv | ation, if App | licable* | | | the second se |
| Dev Howe Residation Concentration (C) Device Residation (T) 4 C Device Residation (T) 4 D Device Residatio | 1.00 | 1.2.2.2 | Sara Carl | 1 11 11 | | CT Calcu | ulations | | | | UV | Dose | | The second se |
| 1 24 0 1 1 1.6 3 24 0 1 1.3 1.3 4 24 0 1.4 1.4 5 24 0 1.4 1.4 6 24 3x000 1.4 1.4 7 24 0 1.8 1.8 7 24 1.6 2.0 1.8 9 24 1.9 1.9 1.9 11 24 20,000 1.9 1.6 12 24 0 1.1 1.9 13 24 0.0 1.1 1.9 14 24 0 1.1 1.1 15 24 0 1.1 1.1 16 24 0 1.1 1.1 18 24 0 1.1 1.1 18 24 0 1.1 1.1 18 24 0 1.1 1.1 18 24 0 1.1 1.1 | Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Disinfectant Contact Time (T) at C Measurement Point During Peak Flow, | Lowest CT Provided Before or at First Customer During | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions: Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 2 24 0 0 0 1.3 4 24 0 1.4 1.4 5 24 0 1.4 1.4 6 24 34,00 1.8 1.8 7 24 85,00 1.8 2.0 8 24 106,00 1.8 2.0 9 24 1.4 2.0 9 24 1.9 2.1 10 24 23,000 1.9 1.9 11 24 23,000 1.9 1.9 11 24 20,000 1.9 1.6 12 24 0 1.6 1.6 13 24 0.0 1.1 1.6 14 24 0 1.1 1.1 15 34 0 1.1 1.1 16 34 0 1.1 1.1 18 4 0 1.1 1.6 22 24 20,00 1.6 1.6 23 24 | ĺ | 24 | 0 | | | | | | | | | | 1.6 | |
| 3 24 0 1 1.3 4 24 0 1.4 1.4 5 24 0 1.4 1.4 6 24 34,000 1.4 1.4 7 24 85,000 1.4 2.0 8 24 106,000 1.4 2.0 8 24 106,000 1.4 2.0 9 24 22,000 1.8 2.0 10 24 22,000 1.9 1.9 11 24 20,000 1.1 1.9 12 24 0 1.1 1.1.8 13 24 20,000 1.1 1.1 14 24 0 1.1 1.1 15 24 0 1.1 1.1 16 24 0 1.1 1.1 18 24 0 1.1 1.1 18 24 0 1.1 1.1 18 24 0 1.1 1.1 1 | 2 | 24 | | | 1 | | | | | | | | | |
| 4 24 0 1.4 1.4 .5 24 0 1.4 1.4 .6 24 34,000 1.8 1.8 7 24 85,000 1 1 2.0 8 24 106,000 1 1 2.0 9 24 10 1 1.9 1.0 10 24 251,000 1.9 1.9 1.1 11 24 251,000 1.6 1.6 1.6 12 24 0 1 1.7 1.7 13 24 0 1 1.1 1.7 14 24 0 1 1.1 1.7 15 24 0 1 1.1 1.1 16 34 1 1 1.1 1.1 18 24 0 1 1.6 1.3 22 24 0,00 1 1.1 1.1 18 24 0 1 1.6 1.1 22 <td>3</td> <td>24</td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1.3</td> <td></td> | 3 | 24 | 0 | | | | | | | | | | 1.3 | |
| s 24 0 1.4 1.4 6 24 34,000 1 1 1.8 7 24 85,000 1 1 2.0 8 24 106,000 1 1 2.2 10 24 22,000 1.9 1.9 11 24 21,000 1.6 1.6 12 24 0 1.6 1.7 13 24 0 1.1 2.3 14 24 0 1.1 2.3 15 24 0 1.1 1.6 14 24 0 1.1 1.6 15 24 0 1.1 1.1 16 2.3 1.1 1.1 17 24 19,000 1.1 1.1 18 24 0 1.1 1.1 18 24 0 1.1 1.1 18 24 0 1.1 1.1 19 24 0 1.1 1.6 <td>4</td> <td>24</td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1.4</td> <td></td> | 4 | 24 | 0 | | | | | | | | | | 1.4 | |
| 6 24 34,000 Image: state s | 5 | 24 | 0 | | | | | | | | | | 1.4 | |
| 7 24 85,000 10 2.0 2.0 8 24 106,000 22,0 2.2 10 24 22,000 1.9 1.9 11 24 251,000 2.1 1.9 12 24 0 1.6 1.6 13 24 20,000 1.8 1.6 14 24 0 1.7 1.6 15 24 0 1.1 1.7 16 24 0 2.3 1.1 17 24 1.9 2.0 1.1 18 24 0 1.1 1.1 18 24 0 1.1 1.1 18 24 0 1.1 1.3 21 24 1.000 1.6 1.3 21 24 1.000 1.6 1.6 22 24 20,000 1.6 1.6 23 24 1.000 1.6 1.6 24 24, 00 1.6 2.0 1.6< | 6 | 24 | 34,000 | | | | | | | | | | 1.8 | |
| 8 24 106,00 22 9 24 220,000 10 10 11 24 220,000 10 2.1 12 24 0 1.6 1.6 13 24 20,000 1.8 1.6 14 24 0 1.7 1.8 14 24 0 1.17 1.8 14 24 0 1.17 1.10 15 24 0 1.11 1.16 16 24 0 1.11 1.11 18 24 0 1.11 1.11 18 24 0 1.11 1.11 18 24 0 1.11 1.11 18 24 0 1.13 1.13 20 24 29,000 1.6 1.6 23 24 20,000 1.6 2.4 24 24,000 1.6 2.4 25 24 21,000 2.6 27 24 1.6< | 7 | 24 | 85,000 | | | | | | | | | | 2.0 | |
| 9 24 | 8 | 24 | 106,000 | | | | | | | | | | 2.2 | |
| 10 24 220,00 1.9 1.9 11 24 251,000 2.1 2.1 12 24 0 1.6 1.6 13 24 20,000 1.8 1.7 14 24 0 2.3 1.7 15 24 0 2.0 1.1 16 24 0 1.1 1.1 18 24 0 1.1 1.1 18 24 0 1.1 1.1 18 24 0 1.1 1.1 18 24 0 1.1 2.0 19 24 0 1.6 0.9 20 24 29,000 1.6 1.6 21 24 1,000 1.6 1.6 22 24 20,000 1.6 2.4 24 24,000 1.6 2.4 24 24,000 1.6 2.6 25 24 21,000 1.6 2.0 28 24 | 9 | 24 | | | | | | | | | | | | |
| 11 24 251,000 2.1 12 24 0 1.6 13 24 0 1.8 14 24 0 1.7 15 24 0 1.7 16 24 0 1.1 17 24 19,000 1.1 18 24 0 1.1 18 24 0 1.1 18 24 0 1.1 18 24 0 1.1 18 24 0 1.1 18 24 0 1.1 18 24 0 1.1 18 24 0 1.1 19 24 0 1.6 22 24 29,000 1.6 21 24 1.000 1.6 22 24 20,000 1.6 24 20,000 1.6 2.4 24 24 20,00 2.4 25 24 21,000 2.0 | 10 | 24 | 220,000 | | | | | | | | | | 1.9 | |
| 12 24 0 1.6 13 24 20,00 1.8 14 24 0 1.7 15 24 0 2.3 16 24 0 1.1 17 24 19,000 1.1 18 24 0 1.1 19 24 0 1.1 14 2.0 0.99 17 24 9,000 1.1 18 24 0 1.1 19 24 0 1.3 20 24 29,000 1.6 21 24 1.000 1.6 22 24 20,000 1.6 23 24 20,000 1.6 24 24,000 2.4 2.4 24 24,000 2.4 24 24,000 2.6 25 24 21,000 1.6 26 24 21,000 2.0 28 24 0 2.0 29 <td>11</td> <td>24</td> <td>251,000</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2.1</td> <td></td> | 11 | 24 | 251,000 | | | | | | | | | | 2.1 | |
| 13 24 20,000 1.8 1.18 14 24 0 1.7 1.7 15 24 0 2.3 1.7 16 24 1 1.1 1.1 17 24 19,000 1.1 1.1 18 24 0 1.1 2.0 19 24 0 1.1 1.3 20 24 29,000 1.3 1.6 21 24 11,000 1.6 1.6 22 24 20,000 1.6 1.6 23 24 20,000 1.6 2.4 24 20,000 1.6 2.4 2.4 25 24 20,000 1.6 2.4 25 24 21,000 1.6 2.6 27 24 12,000 1.6 2.0 26 24 21,000 1.6 2.0 27 24 12,000 1.6 2.0 28 24 0 1.6 2.0 | 12 | 24 | 0 | | | | | | | | | | 1.6 | |
| 14 24 0 1.7 15 24 0 2.3 16 24 2.3 17 24 19,000 1.1 18 24 0 1.1 18 24 0 1.1 19 24 0 2.0 20 24 29,000 1.3 21 24 11,000 1.6 23 24 20,000 1.6 23 24 20,000 1.6 24 20,000 1.6 2.4 25 24 27,000 1.6 25 24 21,000 1.6 26 24 21,000 1.6 26 24 21,000 1.6 25 24 20,000 1.6 27 24 12,000 2.4 26 24 21,000 2.0 28 24 0 2.0 2.0 29 24 0 2.0 2.0 31 <td< td=""><td>13</td><td>24</td><td>20,000</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1.8</td><td></td></td<> | 13 | 24 | 20,000 | | | | | | | | | | 1.8 | |
| 15 24 0 2.3 16 24 19,000 1.1 17 24 19,000 1.1 18 24 0 2.0 19 24 0 0.9 20 24 29,000 1.3 21 24 11,000 1.6 22 24 20,000 1.6 23 24 20,000 1.6 24 24,000 1.6 24 24,000 1.6 24 24,000 1.6 24 24,000 1.6 24 24,000 1.6 25 24 21,000 26 24,12,000 2.0 27 24 12,000 28 24 0 2.0 29 24 0 2.0 31 24,32,000 2.0 2.0 31 24,32,000 2.0 2.0 | 14 | 24 | 0 | | | | | | | | | | 1.7 | |
| 16 24 19,000 11 17 24 19,000 1.1 18 24 0 2.0 19 24 0 0.9 20 24 29,000 1.3 21 24 11,000 1.6 22 24 20,000 1.6 23 24 20,000 1.6 24 20,000 1.6 1.6 24 24,000 2.4 2.4 24 20,000 1.6 2.4 24 24,000 1.6 2.4 24 24,000 2.4 2.4 24 24,000 2.4 2.4 25 24 21,000 2.4 26 24 21,000 1.6 28 24 0 2.0 2.0 29 24 0 2.0 2.0 30 24 2.000 2.0 2.0 29 24 0 2.0 2.0 30 24 0 <td>15</td> <td>24</td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2.3</td> <td></td> | 15 | 24 | 0 | | | | | | | | | | 2.3 | |
| 17 24 19,000 1.1 18 24 0 2.0 19 24 0 0.9 20 24 29,000 1.3 21 24 11,000 1.6 22 24 20,000 1.6 23 24 20,000 1.6 24 24,000 1.6 25 24 20,000 1.6 24 24,000 1.6 1.6 25 24 20,000 1.6 26 24 27,000 1.6 2.4 27 24 12,000 1.6 2.6 27 24 12,000 1.6 2.6 28 24 0 1.6 2.0 29 24 0 1.6 2.0 30 24 2.00 1.6 2.0 31 24 32,000 1.6 2.0 10 1.6 2.0 2.0 1.6 29 24 0 2.0 2.0 | 16 | 24 | | | | | | | | | | | | |
| 18 24 0 2.0 19 24 0 0.9 20 24 29,000 1.3 21 24 11,000 1.6 22 24 20,000 1.6 23 24 20,000 1.6 24 24,000 1.6 25 24 27,000 1.6 25 24 21,000 2.4 26 24 21,000 2.6 27 24 12,000 1.6 28 24 0 2.0 29 24 0 2.0 29 24 0 2.0 30 24 2.00 2.0 31 24 32,000 2.0 | 17 | 24 | 19,000 | | | | | | | | | | 1.1 | |
| 19 24 0 0.9 20 24 29,000 1.3 21 24 11,000 1.6 22 24 20,000 1.6 23 24 20,000 1.6 24 20,000 1.6 25 24 27,000 1.6 26 24 21,000 2.4 27 24 12,000 1.6 28 24 0 1.6 29 24 0 2.0 30 24 2.0 31 24 32,000 | 18 | 24 | 0 | | | | | | | | | | 2.0 | |
| 20 24 29,000 1.3 21 24 11,000 1.6 22 24 20,000 1.6 23 24 20,000 1.6 24 24 20,000 1.6 24 24 20,000 1.6 24 24 20,000 1.6 24 24 20,000 1.6 25 24 27,000 2.4 26 24 21,000 2.6 27 24 12,000 1.6 28 24 0 2.0 29 24 0 2.0 30 24 2.0 2.0 31 24 32,000 2.0 | 19 | 24 | 0 | | L | | | | | | | | 0.9 | |
| 21 24 11,000 1.6 22 24 20,000 1.6 23 24 1.6 24 20,000 1.6 24 24,000 1.6 25 24,27,000 2.4 26 24,000 2.6 27 24,12,000 1.6 28 24,00 1.6 29 24,00 2.0 30 24,00 2.0 31 24,32,000 2.0 Total | 20 | 24 | 29,000 | | | | | | | | | | 1.3 | |
| 22 24 20,000 1.6 23 24 20,000 1.6 24 24 20,000 1.6 25 24 27,000 2.4 26 24 21,000 2.6 27 24 12,000 1.6 28 24 0 2.0 29 24 0 2.0 30 24 32,000 2.0 Total 907,000 2.0 | 21 | 24 | 11,000 | | | | | | | | | | 1.6 | |
| 23 24 24 20,000 1.6 24 24 20,000 1.6 25 24 27,000 2.4 26 24 21,000 2.6 27 24 12,000 1.6 28 24 0 1.6 29 24 0 2.0 30 24 2.0 31 24 32,000 | 22 | 24 | 20,000 | | | | | | | | | | 1.6 | |
| 24 20,000 1.6 25 24 27,000 2.4 26 24 21,000 2.6 27 24 12,000 1.6 28 24 0 2.0 29 24 0 2.0 30 24 2.00 2.0 31 24 32,000 2.0 | 23 | 24 | | | | | · | | | | | | | |
| 25 24 27,000 2.4 26 24 21,000 2.6 27 24 12,000 1.6 28 24 0 2.0 29 24 0 2.0 30 24 2.0 31 24 32,000 Fotal 907,000 | 24 | 24 | 20,000 | | | | | | | | | _ | 1.6 | |
| 26 24 21,000 2.6 27 24 12,000 1.6 28 24 0 2.0 29 24 0 2.0 30 24 2.0 2.0 31 24 32,000 2.0 Fotal 2.0 | 25 | 24 | 27,000 | | | | | | 4 | | | | 2.4 | |
| 27 24 12,000 1.6 28 24 0 2.0 29 24 0 2.0 30 24 20 2.0 31 24 32,000 2.0 Fotal 907,000 | 26 | 24 | 21,000 | | | | | | | | | | 2.6 | |
| 28 24 0 2.0 29 24 0 2.0 30 24 2.0 31 24 32,000 Fotal 907,000 | 27 | 24 | 12,000 | | · · · · · · · · · · · · · · · · · · · | | | | | | | | 1.6 | |
| 29 24 0 2.0 30 24 31 24 32,000 Total 907,000 | 28 | 24 | 0 | | | | | | | | | | 2.0 | |
| 30 24 24 32,000 2.0 31 24 32,000 2.0 2.0 | 29 | 24 | 0 | | | | | | | | | | 2.0 | |
| 31 24 32,000 2.0 Total 907,000 2.0 | 30 | 24 | | | | | | | | | | | | |
| Fotal 907,000 | 31 | 24 | 32,000 | | | | | | | | 1.1.1.1 | | 2.0 | |
| 21.001.0 | Total | ing the state | 907,000 | | | | | | | | | | | |
| Average 34,884.0 | Average | n | 34,884.6 | | | | | | | | | | | |



| Se | e page 4 for instru | uctions. | | | | | | | | |
|----|--|-----------------|---|-----------------------|------------|--------------------------|--------------------|----------------------|-------------|--|
| I. | General Informa | ation for the N | Ionth/Year of: February, 2021 | | | | | | | |
| A. | Public Water Sy | stem (PWS) In | formation | | | | | | | |
| | PWS Name: | CRYSTAL L | AKE WATER PLANT #7 | | I | WS Identification Num | ber: 62800 |)49 | | |
| | PWS Type: | Community | Non-Transient Non-Community | Transient Non | -Community | Consecutive | 2 | | | |
| | Number of Serv | ice Connection | s at End of Month: 506 | | Total Po | pulation Served at End o | of Month: | 800 | | |
| | PWS Owner: | CITY OF AV | 'ON PARK | | | | | | | |
| | Contact Person: | Jonathan Delg | gado | | Contact | Person's Title: | Lead Plant Ope | erator | _ | |
| | Contact Person's | Mailing Addre | ess: 2504 U.S. 27 SOUTH | | City: A | VON PARK | State: FL | Zip Code: | 33825 | |
| | Contact Person's | Telephone Nu | mber: 863-443-1806 | | Contact | Person's Fax Number: | 863-452-1078 | | | |
| | Contact Person's | E-Mail Addres | ss: operator@avonpark.cc | | | | | | | |
| B. | Water Treatmen | t Plant Informa | tion | | | | | | | |
| | Plant Name: | CRYSTAL L | AKE WATER PLANT #7 | | F | lant Telephone Number | : 863-443-1806 | | | |
| | Plant Address: | | | | City: A | VON PARK | State: FL | Zip Code: | 33825 | |
| | Type of Water T | reated by Plant | t: 🔄 Raw Ground Water 🔄 P | urchased Finished Wat | er | | | | | |
| 2 | Permitted Maxin | num Day Opera | ating Capacity of Plant, gallons per day: | 500,000 | | | | | | |
| | Plant Category (| per subsection | 62-699.310(4), F.A.C.): 5 | | Plant Cla | ss (per subsection 62-69 | 9.310(4), F.A.C.): | A.C.): C | | |
| | Licensed Oper | ators | Name | License Cl | ass | License Number | Da | y(s)/Shift(s) Worked | a- internet | |
| | Lead/Chief Oper | ator: | Jonathan Delgado | C | | 20135 | | 6 days per week | | |
| | Other Operators: | | | | | | | | | |
| | and the second | | | | | | | | | |
| | A STATISTICS | | | | | | 7 | | | |
| | | | | | | | | | | |
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| | AND SWEET | 1 - O - O | | | | | | | | |
| | L | | | | | | | | | |
| | and and an and an and an | | | | | | | | | |
| | Martin and the second | | | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date

03/04/21 Jonathan Delgado

Printed or Typed Name

20135 License Number

| PWSI | dentificatio | on Number: | 6284111 | | | Plant Nam | ne: | Crystal La | ake Club | | | | |
|---------|--|-----------------|-------------|---|---|---------------|----------------|----------------|----------------|------------|----------|------------------|--|
| III. D | II. Daily Data for the Month/Year of: February, 2021 | | | | | | | | | | | | |
| Means | of Achiev | ing Four-Log | Virus Inact | ivation/Removal: | * Free | Chlorine | | Chlorine Dio | xide | Ozone | Com | bine Chlorine (C | Choramines) |
| Ult | raviolet Radi | ation | Other (D | Describe): | | | | | | | | | |
| Type o | f Disinfect | tant Residual | Maintained | in Distribution S | ystem: | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dic | oxide |
| | State Bar | | 11.114 | CT Calculations | or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiva | ation, if Appl | licable* | 1.1 | 58 - Far F | |
| 1000 | Section Section | | | | CT Calcu | dations | and the second | | | UV | Dose | Re- 1925 | the set of the state of the state of the set |
| - 201 | A State of the | No With Str. | | Lowest Residual | Disinfectant | Lowest CT | 1000 | | Nel Trans | | | Lowest Residual | ART A VERD AV |
| 1 | 12.2.2.2 | | | Disinfectant | Contact Time | Provided | - | 1.50 | | Lowest | Minimum | Disinfectant | |
| Daviof | Hours Plant | Nat Quantity of | 14 27 | Concentration (C) Before or at First | (1) at C Measurement | Before of | remp. | pHof | CT | UV Dose | Required | Concentration at | Emergance or Abnormal Operating Conditions: Paneir or |
| the | in | Finished Water | Peak Flow | Customer During | Point During | Customer | Water, | Water, if | Required. | mW- | mW- | Distribution | Maintenance Work that Involves Taking Water System |
| Month | Operation | Produced, gal | Rate, gpd | Peak Flow, mg/L | Peak Flow, | During | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation |
| 1 | 24 | 20,000 | | | | | | | | | | 1.9 | |
| 2 | 24 | 7,000 | | | | | | | | | | 2.0 | |
| 3 | 24 | 3,000 | | | | | 1 | | | | | 2.1 | |
| 4 | 24 | 5,000 | | | | | | | | | | 2.1 | |
| 5 | 24 | 5,000 | | | | | | | | | | 2.1 | |
| 6 | 24 | | | | | | | | | | | | |
| 7 | 24 | 8,000 | | | | | | | | | | 2.0 | |
| 8 | 24 | 4,000 | | | () () () () () () () () () () | | | | | | | 2.1 | |
| 9 | 24 | 23,000 | | | | | | | | | | 2.2 | |
| 10 | 24 | 0 | | | | | | | | | | 2.2 | |
| 11 | 24 | 0 | | | | | | | î | | | 2.0 | |
| 12 | 24 | 0 | | | | | | | | | | 1.6 | |
| 13 | 24 | | | | | | | | | | | | |
| 14 | 24 | 24,000 | | | | | | | | | | 1.8 | |
| 15 | 24 | 0 | | | | | | | | | | 2.0 | |
| 16 | 24 | 23,000 | | | | | | | | | | 2.0 | |
| 17 | 24 | 0 | | | | | | | | | | 1.9 | |
| 18 | 24 | 19,000 | | | | | | | | | | 1.8 | |
| 19 | 24 | 0 | | | | | | | | | | 1.8 | |
| 20 | 24 | | | | | | | | | | | | |
| 21 | 24 | 9,000 | | | | | | | 10 | | | 1.7 | |
| 22 | 24 | 0 | | | | | | | | | | 1.6 | |
| 23 | 24 | 19,000 | | | | | | | | | | 1.6 | |
| 24 | 24 | 13,000 | | | | | | | | | | 1.3 | |
| 25 | 24 | 0 | | | | | | | | | | 1.4 | |
| 26 | 24 | 58,000 | | | | | | | | | | 1.4 | |
| 27 | 24 | | | | | | | | | | | | |
| 28 | 24 | 29,000 | | | | | | | | | | 1.3 | |
| 1 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Total | 10111111 | 269,000 | | | | | | | | | | | |
| Average | State of the second second | 11,208,3 | | | | | | | | | | | |

58,000

Maximum



| See page 4 for inst | ructions. | | | | | | | |
|---------------------------|--|-------------------------------------|----------------------|-------------|----------------------------|-------------------|----------------------|-------|
| I. General Inform | nation for the Mont | h/Year of: February, 2021 | | | | | | |
| A. Public Water S | System (PWS) Inform | ation | | | | | | |
| PWS Name: | CITY OF AVON | PARK | | | PWS Identification Number | er: 62800 |)49 | |
| PWS Type: | Community | Non-Transient Non-Community | Transient Non | 1-Community | y Consecutive | | | |
| Number of Ser | vice Connections at I | End of Month: 7037 | | Total Po | Month: | 18561 | | |
| PWS Owner: | CITY OF AVON | PARK | | | | | | |
| Contact Person | : Jonathan Delgado | | | Contact | Person's Title: | Lead Plant Ope | rator | |
| Contact Person | 's Mailing Address: | 2504 U.S. 27 SOUTH | | City: | AVON PARK | State: FL | Zip Code: | 33825 |
| Contact Person | 's Telephone Numbe | r: 863-443-1806 | | Contact | Person's Fax Number: | 863-452-1078 | | |
| Contact Person | s E-Mail Address: | operator@avonpark.cc | | | | | | |
| B. Water Treatme | ent Plant Information | | | | | | | |
| Plant Name: | GLENWOOD WA | ATER PLANT #2 | | 1 | Plant Telephone Number: | 863-443-1806 | | |
| Plant Address: | 100 S. GLENWO | OD AVENUE | | City: | AVON PARK | State: FL | Zip Code: | 33825 |
| Type of Water | Treated by Plant: | Raw Ground Water | rchased Finished Wat | ter | | | | |
| Permitted Max | imum Day Operating | Capacity of Plant, gallons per day: | 1,700,000 | | | | | |
| Plant Category | (per subsection 62-6 | 99.310(4), F.A.C.): 5 | | Plant Cl | ass (per subsection 62-699 | .310(4), F.A.C.): | C | |
| Licensed Ope | erators | Name | License C | lass | License Number | Da | y(s)/Shift(s) Worked | |
| Lead Operator: | | Jonathan Delgado | C | | 20135 | | 6 days per week | |
| Other Operator | 'S: | | | | | | | |
| | 253 | | | | | | | |
| | 233 | | | | | | | |
| | 2502 1 | | | | | | | |
| 14 | | | | | | | | |
| | and the second | | | | | | (e | |
| | A Log | | | | | | | |
| Street States | | | | | | | | |
| THE REAL PROPERTY OF LAND | and the second second | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555 900(3) Effective August 28, 2003 03/04/21 Jonathan Delgado Printed or Typed Name _____<u>20135</u> License Number

| PWS I | PWS Identification Number: 6280049 Plant Name: GLENWOOD WATER PLANT #2 | | | | | | | | | | | | | |
|---------|--|----------------------------------|------------|--|---|---|-------------|---------------|----------------|---------------------------------|---------------------------------|--|--|--|
| III. Da | II. Daily Data for the Month/Year of: February, 2021 | | | | | | | | | | | | | |
| Means | Means of Achieving Four-Log Virus Inactivation/Removal: * 🗹 Free Chlorine 🗌 Chlorine Dioxide 📋 Ozone 📋 Combine Chlorine (Choramines) | | | | | | | | | | | | | |
| Type o | f Disinfect | ant Residual N | Maintained | in Distribution S | ystem: | Free Chlorin | e | Combine | Chlorine (| horamines |) | Chlorine Dio | xide | |
| - | State of the second | No. of the local division of the | 12/5000 | CT Calculations | or UV Dose, to | Demonstrate I | our-Log | Virus Inactiv | ation, if Appl | icable* | Contraction of the | C.C. ST. | and the second second second second | |
| 11. | Maria . | and the part | | | CT Calcu | lations | | | | UV | Dose | A STATE OF | | |
| Day of | Hours Plant | Net Quantity of | | Lowest Residual Disinfectant Concentration (C) Before or at First | Contact Time (T) at C Measurement Point During | Provided Before or at First Customer | Temp. of | pH of | Minimum CT | Lowest Operating UV Dose, | Minimum UV Dose Required, | Lowest Residual Disinfectant Concentration at Remote Point in | Emergency or Abnormal Operating Conditions, Repair or | |
| the | in | Finished Water | Peak Flow | Customer During | Peak Flow, | During | Water. | Water, if | Required, | mW- | mW- | Distribution | Maintenance Work that Involves Taking Water System | |
| Month | Operation | Produced, gal | Rate, gpd | Peak Flow, mg/L | minutes | Peak Flow, | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation | |
| 1 | 24 | 1,103,000 | | | | | | | | | | 2.4 | | |
| 2 | 24 | 670,000 | | | | | | | | - | | 2.4 | | |
| 3 | 24 | 754,000 | | | | | | | | _ | | 2.6 | the second s | |
| 4 | 24 | 584,000 | | | | | | | _ | | | 2.3 | | |
| 5 | 24 | 740,000 | | | | | | | | | | 2.1 | | |
| 6 | 24 | | | | | | | | | | | 2.0 | | |
| 7 | 24 | 1,234,000 | | | | | | | | | | 2.0 | | |
| 8 | 24 | 1,144,000 | | | | | | | | - | | 2.0 | | |
| 9 | 24 | 758,000 | | | | | | | | | | 1.9 | | |
| 10 | 24 | 832,000 | | | | _ | | | | | | 2.1 | | |
| 11 | 24 | 801,000 | | | | | | | | | | 2.2 | | |
| 12 | 24 | 874,000 | | | | | | | - | | | 2.3 | | |
| 13 | 24 | 1 412 000 | | | | | | | | | | 2.0 | | |
| 14 | 24 | 706.000 | | | | | | | | | | 1.0 | | |
| 15 | 24 | 973.000 | | | | | | | | | | 21 | | |
| 10 | 24 | 778,000 | | | | | | | | | - | 2.1 | | |
| 17 | 24 | 568,000 | | | | | | | | | | 2.0 | | |
| 10 | 24 | 740,000 | | | | | | - | | | | 2.2 | | |
| 20 | 24 | 740,000 | | | | | | - | | | | 2.7 | | |
| 20 | 24 | 1 573 000 | | | | | | | | | | 2.0 | | |
| 27 | 24 | 980.000 | | | | | | | | _ | | 2.0 | | |
| 23 | 24 | 433,000 | | | | | | | | | | 1.9 | | |
| 24 | 24 | 860.000 | | | | | | | | | _ | 1.0 | | |
| 25 | 24 | 866,000 | | | | | | | | | | 1.1 | | |
| 26 | 24 | 798,000 | | | | | | | | | | 1.0 | | |
| 27 | 24 | | | | | | | | | | | | | |
| 28 | 24 | 1,286,000 | | | | | | | | | | 1.0 | | |
| | | | | | | | | | | | | | | |
| 123557 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Total | | 21,418,000 | | | | | | | | | | | | |
| Average | States and States and States | 892 417 | | | | | | | | | | | | |

1,573,000

Maximum

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 5280049 Plant | Name: | GLENWOOD WATER PLANT #2 | |
|-------|--|---|----------------|---|------|
| IV. S | ummary of Use of Polym | er Containing Acrylamide, Polymer Contain | ing Epichlo | prohydrin, and Iron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | Is any polymer containir | g the monomer acrylamide used at the water tre | atment plan | t? No Yes, and the polymer dose and the acrylamide level in the polymer are as follows: | |
| | Polymer Dose, ppm= | | | Acrylamide Level, $\%^{\dagger} =$ | |
| Β. | Is any polymer containin are as follows: | g the monomer epichlorohydrin used at the wat | er treatment | t plant? Vo Yes, and the polymer dose and the epichlorohydrin level in the polymer | |
| | Polymer Dose, ppm= | | | Epichlorohydrin Level, % [†] = | |
| C. | Is any iron or manganese | sequestrant used at the water treatment plant? | V No | Yes, and the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (pol | yphosphate or sodium silicate): | | | |
| | Sequestrant Dose, mg/L | of phosphate as PO ₄ or mg/L of silicate as SiO ₂ | - | 1.45357 mg/L | |
| | If sodium silicate is used | , the amount of added plus naturally occurring | silicate, in n | ng/L as SiO ₂ = | |
| | 1994 - Contra 1997 - Contra 19 | | | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

* Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



See page 4 for instructions.

| I. | General Information f | or the Month/Year of: February | , 2021 | | | | | | | | | | |
|--------|------------------------------|---|-------------------------|---|-------------------|------------|----------------------|-------|--|--|--|--|--|
| Α. | Public Water System (I | PWS) Information | | 11 | | | | | | | | | |
| | PWS Name: CITY | OF AVON PARK | | PWS Identifica | tion Number: | 62800 | 149 | | | | | | |
| | PWS Type: 🗹 Co | mmunity Non-Transient Non-Commun | ity Transient Non- | Community | Consecutive | | | | | | | | |
| - | Number of Service Con | nnections at End of Month: 7037 | | Total Population Serve | d at End of Month | | 18561 | | | | | | |
| | PWS Owner: CITY | OF AVON PARK | | | | | | | | | | | |
| | Contact Person: Jonat | han Delgado | | Contact Person's Title: | Lead | Plant Oper | rator | | | | | | |
| | Contact Person's Mailin | ng Address: 2504 U.S. 27 SOUTH | | City: AVON PARK | State | : FL | Zip Code | 33825 | | | | | |
| | Contact Person's Telep | hone Number: 863-443-1806 | | Contact Person's Fax Number: 863-452-1078 | | | | | | | | | |
| | Contact Person's E-Ma | il Address: operator@avonpark.cr | C | | | | | | | | | | |
| Β. | Water Treatment Plant | Information | | | | | | | | | | | |
| | Plant Name: BELI | L STREET WATER PLANT #1 | Plant Telephon | e Number: 863-443-1806 | | | | | | | | | |
| | Plant Address: 1350 | W. BELL STREET | | City: AVON PARK | State | : FL | Zip Code | 33825 | | | | | |
| of the | Type of Water Treated | by Plant: Raw Ground Water | Purchased Finished Wate | er | | | | | | | | | |
| 1 | Permitted Maximum D | ay Operating Capacity of Plant, gallons per | r day: 5,300,000 | | | | | | | | | | |
| | Plant Category (per sub | osection 62-699.310(4), F.A.C.): 4 | | Plant Class (per subsection 62-699.310(4), F.A.C.): C | | | | | | | | | |
| | Licensed Operators | Name | License Cl | ass License N | lumber | Da | y(s)/Shift(s) Worked | 12 10 | | | | | |
| | Lead/Chief Operator: | Jonathan Delgado | C | 2013 | 5 | | 6 days per week | | | | | | |
| | Other Operators: | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | N | | | | | | | | | | | |
| | | | 1947 - 19 | | | | | | | | | | |
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| | A Maria Maria State | | | | | | | | | | | | |
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| 1 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date

Jonathan Delgado
 Printed or Typed Name

20135 License Number

03/04/21

| PWS | WS Identification Number: 6280049 BELL STREET WATER PLANT #1 | | | | | | | | | | | | |
|---------|--|-------------------------|--------------|---------------------------------|--------------------------|-----------------------|---------|--|----------------|------------|-----------|---------------------------------|--|
| III. D | . Daily Data for the Month/Year of: February, 2021 | | | | | | | | | | | | |
| Means | of Achiev | ing Four-Log ation | Virus Inacti | ivation/Removal: | * 🗸 Free | Chlorine | | Chlorine Dio | xide [| Ozone | Соп | bine Chlorine (C | Choramines) |
| Type | f Disinfect | ant Residual M | Maintained | in Distribution S | vstem: | Free Chlorin | e | Combine | e Chlorine ((| Choramines |) | Chlorine Dio | xide |
| - 71 | | | | CT Calculations | or UV Dose, to | Demonstrate H | our-Log | Virus Inactiva | ation, if Appl | licable* | - | | Reg |
| I'm see | 1. Spel | 1. A. 1. 1. 1. 1. 1. 1. | | | CT Calcu | lations | 0 | | | UV | Dose | State - Links | and the second s |
| | | in a set | | Lowest Residual Disinfectant | Contact Time (T) at C | Provided Before or | Tama | | M | Lowest | Minimum | Lowest Residual Disinfectant | |
| Day of | Hours Plant | Net Ouantity of | - ATT | Before or at First | Point During | Customer | of | pH of | CT | UV Dose, | Required. | Remote Point in | Emergency or Abnormal Operating Conditions: Repair or |
| the | in | Finished Water | Peak Flow | Customer During | Peak Flow, | During | Water. | Water, if | Required, | mW- | mW- | Distribution | Maintenance Work that Involves Taking Water System |
| Month | Operation | Produced, gal | Rate, gpd | Peak Flow, mg/L | minutes | Peak Flow, | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation |
| 1 | 24 | 1,510,000 | | | | | | | | | | 1.6 | |
| 2 | 24 | 1,182,000 | | | | | | | | | | 2.3 | |
| 3 | 24 | 1,243,000 | | | | | | | | | | 2.1 | |
| 4 | 24 | 1,262,000 | | | | | | | | | | 2.4 | |
| 5 | 24 | 1,305,000 | | 1 | | | | | | • | | 2.2 | |
| 6 | 24 | | | | | | | | | | | | |
| 7 | 24 | 2,334,000 | | | | | | | | | | 2.0 | |
| 8 | 24 | 931,000 | | | | | | | | | | 2.1 | |
| 9 | 24 | 1,346,000 | | | | | | | | | - | 2.2 | |
| 10 | 24 | 1,186,000 | | | | | | | | | | 2.0 | |
| 11 | 24 | 1,501,000 | | | | | | | | | | 2.1 | |
| 12 | 24 | 1,442,000 | | | | | | | | | | 2.4 | |
| 13 | 24 | | | | | | | | | | | | |
| 14 | 24 | 2,183,000 | | | | | | | | | | 2.3 | |
| 15 | 24 | 1,235,000 | | | | | | | | _ | | 1.9 | |
| 16 | 24 | 1,726,000 | | | | | | 1. | | | | 2.1 | |
| 17 | 24 | 930,000 | | | | | 1 | | | | | 2.0 | |
| 18 | 24 | 1,219,000 | | | | | | | | | | 2.1 | |
| 19 | 24 | 900,000 | | | | | | | | | | 2.2 | |
| 20 | 24 | | | | | | | | | | | | |
| 21 | 24 | 2,531,000 | | | | | | | | | | 2.0 | |
| 22 | 24 | 1,162,000 | | | | | | | | | | 2.0 | |
| 23 | 24 | 1,203,000 | | | | | | | | | | 2.1 | |
| 24 | 24 | 1,502,000 | | | | | | 6 | | | | 2.3 | |
| 25 | 24 | 1,492,000 | | | | | | | | | | 2.3 | |
| 26 | 24 | 1,424,000 | | | | | - | | | | | 1.9 | |
| 27 | 24 | | | | | | | | | | | - | |
| 28 | 24 | 2,664,000 | | | | | | | | - | | 1.8 | |
| 22.5 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | - | | | | |
| Total | - | 35,413,000 | | | | | | | | | | | |

2,664,000

Maximum



| Se | e page 4 for instructions. | | | | | | | | | | | | |
|----|-------------------------------|--|------------------------|--|------------------------|------------------------|--------|--|--|--|--|--|--|
| I. | General Information fo | or the Month/Year of: February, 2021 | | | | | | | | | | | |
| A. | Public Water System (F | WS) Information | | | | | | | | | | | |
| | PWS Name: CRYS | STAL LAKE WATER PLANT #7 | | PWS Identific | ation Number: | 6280049 | | | | | | | |
| | PWS Type: 🗸 Con | nmunity Non-Transient Non-Community | Transient Non- | Community | Consecutive | | | | | | | | |
| | Number of Service Con | inections at End of Month: 506 | | Total Population Served at End of Month: 800 | | | | | | | | | |
| | PWS Owner: CITY | OF AVON PARK | | | | | | | | | | | |
| | Contact Person: Jonath | han Delgado | | Contact Person's Title | Lead Pl | ant Operator | | | | | | | |
| | Contact Person's Mailin | ig Address: 2504 U.S. 27 SOUTH | | City: AVON PARK | State: | FL Zip Code: | 33825 | | | | | | |
| | Contact Person's Teleph | none Number: 863-443-1806 | | Contact Person's Fax 1 | Number: 863-452 | 2-1078 | | | | | | | |
| | Contact Person's E-Mai | Address: operator@avonpark.cc | | | | | | | | | | | |
| Β. | Water Treatment Plant | Information | | | | | | | | | | | |
| | Plant Name: CRYS | STAL LAKE WATER PLANT #7 | | Plant Telephor | 3-1806 | | | | | | | | |
| | Plant Address: | | | City: AVON PARK | State: 1 | FL Zip Code: | 33825 | | | | | | |
| | Type of Water Treated | by Plant: 🔄 Raw Ground Water 🗌 P | urchased Finished Wate | er | | | | | | | | | |
| | Permitted Maximum Da | ay Operating Capacity of Plant, gallons per day: | 500,000 | 500,000 | | | | | | | | | |
| | Plant Category (per sub | section 62-699.310(4), F.A.C.): 5 | | Plant Class (per subsec | ction 62-699.310(4), F | 99.310(4), F.A.C.): C | | | | | | | |
| | Licensed Operators | Name | License Cla | ass License 1 | Number | Day(s)/Shift(s) Worked | TIPE E | | | | | | |
| | Lead/Chief Operator: | Jonathan Delgado | C | 201 | 35 | 6 days per week | | | | | | | |
| | Other Operators: | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | Jocal, " Las Mar | | | | | | | | | | | | |
| | WADIN LOWER AND | | | | | | | | | | | | |
| | The second second | | | | | | | | | | | | |
| | HALL REAL | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | THE SHARE ZEN | | | | | | | | | | | | |
| | THE PARTY OF | | | | | | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

nature and Date

04/06/21 Jonathan Delgado

Printed or Typed Name

20135 License Number

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS Identification Number: 6280049 Pla | nt Name: I | BELL STREET | WATER PLANT #1 | |
|--|-------------------|---------------------------|---|------|
| IV. Summary of Use of Polymer Containing Acrylamide, Polymer Conta | ining Epichlor | rohydrin, and I | ron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | | ✓ No | Yes, and the polymer dose and the acrylamide level in the polymer are as follows: | |
| Polymer Dose, ppm= | 1 | Acrylamide Lev | el, $\%^{\dagger} =$ | - |
| B. Is any polymer containing the monomer <u>epichlorohydrin</u> used at the v are as follows: | ater treatment p | plant? | No Yes, and the polymer dose and the epichlorohydrin level in the polymer | |
| Polymer Dose, ppm= | I | Epichlorohydrir | Level, $\%^{\dagger} =$ | |
| C. Is any iron or manganese sequestrant used at the water treatment plan | ? No | ✓ Yes, and | the type of sequestrant, sequestrant dose, etc., are as follows: | |
| Type of Sequestrant (polyphosphate or sodium silicate): pol | yphosphate | | | |
| Sequestrant Dose, mg/L of phosphate as PO4 or mg/L of silicate as Si | O ₂ = | 1.28929 mg/L | | |
| If sodium silicate is used, the amount of added plus naturally occurrin | g silicate, in mg | g/L as SiO ₂ = | | |
| | | | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

* Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



See page 4 for instructions.

I. General Information for the Month/Year of: March, 2021

| A. Public water S | ystem (PWS) Informati | on | | | | | | | |
|-------------------|-------------------------|-----------------------------------|------------------------|---------|------------------------------|----------|------------|----------------------|-------|
| PWS Name: | CITY OF AVON PA | RK | | | PWS Identification Number | er: | 62800 | 49 | |
| PWS Type: | ✓ Community | Non-Transient Non-Community | Transient Non | -Commur | hity Consecutive | | | | |
| Number of Ser | vice Connections at End | of Month: 7037 | | Total | Population Served at End of | Month: | | 18561 | |
| PWS Owner: | CITY OF AVON PA | RK | | | | | | | |
| Contact Person | : Jonathan Delgado | | | Conta | ct Person's Title: | Lead | Plant Oper | ator | |
| Contact Person | 's Mailing Address: | 2504 U.S. 27 SOUTH | | City: | AVON PARK | State: | FL | Zip Code | 33825 |
| Contact Person | 's Telephone Number: | 863-443-1806 | | Conta | ct Person's Fax Number: | 863-4 | 52-1078 | | |
| Contact Person | 's E-Mail Address: | operator@avonpark.cc | | | | | | | |
| 3. Water Treatme | nt Plant Information | | | | | | | | |
| Plant Name: | BELL STREET WA | TER PLANT #1 | | | Plant Telephone Number: | 863-4 | 43-1806 | | |
| Plant Address: | 1350 W. BELL STR | EET | | City: | AVON PARK | State: | FL | Zip Code | 33825 |
| Type of Water | Treated by Plant: | Raw Ground Water | Purchased Finished Wat | er | | | | | |
| Permitted Max | imum Day Operating Ca | pacity of Plant, gallons per day: | 5,300,000 | | | | | | |
| Plant Category | (per subsection 62-699. | 310(4), F.A.C.): 4 | | Plant (| Class (per subsection 62-699 | .310(4), | , F.A.C.): | С | |
| Licensed Ope | erators | Name | License Cl | ass | License Number | 1 | Da | y(s)/Shift(s) Worked | 8-0-1 |
| Lead/Chief Op | erator: | Jonathan Delgado | C | | 20135 | | | 6 days per week | |
| Other Operator | s: | | | | | | | | |
| | | | | | | | | | |
| The New Yorks | | | | | | | | | |
| No State of State | | | | | | | | | |
| | F. F. L. | | | | | | | | |
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| T-THE PARK | 13 | | | | | | | | |
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| Company of the | and the second second | | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date

Jonathan Delgado Printed or Typed Name

04/06/21

20135 License Number

DEP Form 62-555.900(3) Effective August 28, 2003

Page 1

| PWS | Identificatio | on Number: | 6280049 | | |] | | BELL ST | REET WA | TER PLA | NT #1 | | | |
|--------|---|--------------------|------------|--------------------|------------------|---------------|----------|---------------|----------------|------------|----------|-----------------|--|--|
| III. D | II. Daily Data for the Month/Year of: March, 2021 | | | | | | | | | | | | | |
| Mean | Ieans of Achieving Four-Log Virus Inactivation/Removal: * Image: Free Chlorine Chlorine Dioxide Ozone Combine Chlorine (Choramines) Image: Ultraviolet Radiation Image: Other (Describe): Image: Other (Describe): Image: Other (Describe): | | | | | | | | | | | | | |
| Type | of Disinfect | ant Residual ! | Maintained | in Distribution S | ystem: 🔽 | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dic | xide | |
| | 1000 | THE REAL PROPERTY. | 100112 | CT Calculations | , or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiv | ation, if Appl | licable* | Salty. | The states of | | |
| SIL-1 | Strates | Carles & | A THE R | | CT Calcu | lations | | | | UV | Dose | | and the second se | |
| 1500 | 1. 16 . 19 | | The state | Lowest Residual | Contact Time | Provided | EIE . | FARTER F | and the second | | | Lowest Residual | Complete State Complete State of the | |
| - | the second | 1242-1.35% | 111111 | Disinfectant | (T) at C | Before or | Tomin | 122 123 | Minimum | Lowest | Minimum | Disinfectant | and the second sec | |
| Daviot | Hours Diant | Nat Quantity of | the second | Before or at First | Point During | Customer | of | oHof | CT | UV Dose | Required | Remote Point in | Emergency or Abnormal Operating Conditions: Repair or | |
| the | in | Finished Water | Peak Flow | Customer During | Peak Flow. | During | Water, | Water, if | Required. | mW- | mW- | Distribution | Maintenance Work that Involves Taking Water System | |
| Month | Operation | Produced, gal | Rate, gpd | Peak Flow, mg/L | minutes | Peak Flow, | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation | |
| 1 | 24 | 1,236,000 | | | | | | | | | | 3.6 | | |
| 2 | 24 | 125,000 | 1 | - | | | | | | | | 2.4 | | |
| 3 | 24 | 1,232,000 | | | | | | | | | | 2.7 | | |
| 4 | 24 | 1,150,000 | | | | | | | | | | 2.5 | | |
| 5 | 24 | 1,303,000 | | | | | | | | | | 2.3 | | |
| 6 | 24 | | | | | | | | | | | | | |
| 7 | 24 | 2,367,000 | | | | - | | | | | | 1.6 | | |
| 8 | 24 | 1,305,000 | | | | | | | | | | 1.7 | | |
| 9 | 24 | 755,000 | | | | | | | | | | 1.4 | | |
| 10 | 24 | 1,693,000 | | | | | | | | | | 1.6 | | |
| 11 | 24 | 846,000 | | | | | | | | | | 1.5 | | |
| 12 | 24 | 1,695,000 | | | | | | | | | | 1.7 | | |
| 13 | 24 | | | | | | | | | | | | | |
| 14 | 24 | 2,409,000 | | | | | | | | | | 1.8 | | |
| 15 | 24 | 1,105,000 | | | | | | | | | | 1.9 | | |
| 16 | 24 | 1,721,000 | | | | | | | | | | 1.4 | | |
| 17 | 24 | 1,137,000 | | | | | | | | | | 1.7 | | |
| 18 | 24 | 1,498,000 | | | | | | | | | | 2.0 | | |
| 19 | 24 | 1,381,000 | | | | | | | | | | 2.1 | | |
| 20 | 24 | | | | | | | | | | | | | |
| 21 | 24 | 2,449,000 | | | | | | | | | | 2.1 | | |
| 22 | 24 | 1,343,000 | | | | | | | | | | 2.4 | | |
| 23 | 24 | 1,023,000 | | | | | | | | | | 1.6 | | |
| 24 | 24 | 1,673,000 | | _ | | | | | | 1 | | 2.6 | | |
| 25 | 24 | 1,382,000 | | | | | | | | | | 3.1 | | |
| 26 | 24 | 1,374,000 | | | | | | | | | | 2.0 | | |
| 27 | 24 | | | | | | | | | | | | | |
| 28 | 24 | 2,892,000 | | | | | | | | | | 2.1 | | |
| 29 | 24 | 1,287,000 | | | | | | | | | | 2.1 | | |
| 30 | 24 | 1,316,000 | | | | | | | | | | 2.4 | | |
| 31 | 24 | 1,362,000 | 4 | | | | | | | | | 2.2 | | |
| Total | | 39,059,000 | | | | | | | | | | | | |

Maximum

2,892,000

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: 6280049 | Plant Name: | : BELL STREET WATER PLANT #1 | _ |
|-------|---|------------------------------------|--|------|
| IV. S | ummary of Use of Polymer Containing Acryla | mide, Polymer Containing Epi | pichlorohydrin, and Iron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | | | ✓ No Yes, and the polymer dose and the acrylamide level in the polymer are as follows: | |
| | Polymer Dose, ppm= | | Acrylamide Level, $\%^{\dagger} =$ | |
| В. | Is any polymer containing the monomer <u>epichlo</u> are as follows: | orohydrin used at the water treatr | tment plant? I No Yes, and the polymer dose and the epichlorohydrin level in the polymer | |
| | Polymer Dose, ppm= | | Epichlorohydrin Level, $\%^{\dagger} =$ | |
| C. | Is any iron or manganese sequestrant used at the | e water treatment plant? | No Yes, and the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (polyphosphate or sodium | silicate): polyphospha | nate | |
| | Sequestrant Dose, mg/L of phosphate as PO4 or | r mg/L of silicate as $SiO_2 =$ | 0.51852 mg/L | |
| | If sodium silicate is used, the amount of added | nlus naturally occurring silicate. | $a_{\rm in} mg/L$ as SiO ₂ = | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

* Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



See page 4 for instructions

MONTHLY OPERATION REPORT FOR PWSs TREATING RAW GROUND WATER OR PURCHASED FINISHED WATER

| I. General Information for the Month/Year of: March, 2021 | | | | | | | | | |
|---|---|--------------------------------------|-----------------|----------------------|----------------|--|--|--|--|
| A. Public Water System (PWS) Information | | | | | | | | | |
| PWS Name: CITY OF AVON PARK | | PWS Identification Num | ber: 62800 |)49 | | | | | |
| PWS Type: 🗹 Community 🗌 Non-Transient Non-Community | Transient Non-Commu | nity Consecutiv | 9 | | | | | | |
| Number of Service Connections at End of Month: 7037 | Total | Population Served at End of | of Month: | 18561 | | | | | |
| PWS Owner: CITY OF AVON PARK | | | | | | | | | |
| Contact Person: Jonathan Delgado | Conta | ect Person's Title: | Lead Plant Oper | rator | | | | | |
| Contact Person's Mailing Address: 2504 U.S. 27 SOUTH | City: | AVON PARK | State: FL | Zip Code: | 33825 | | | | |
| Contact Person's Telephone Number: 863-443-1806 | Conta | ct Person's Fax Number: | 863-452-1078 | | | | | | |
| Contact Person's E-Mail Address: operator@avonpark.cc | | | | | | | | | |
| B. Water Treatment Plant Information | | | | | | | | | |
| Plant Name: GLENWOOD WATER PLANT #2 | | Plant Telephone Number: 863-443-1806 | | | | | | | |
| Plant Address: 100 S. GLENWOOD AVENUE | City: | AVON PARK | State: FL | Zip Code: | 33825 | | | | |
| Type of Water Treated by Plant: 🗹 Raw Ground Water | rchased Finished Water | | | | | | | | |
| Permitted Maximum Day Operating Capacity of Plant, gallons per day: | 1,700,000 | | | | | | | | |
| Plant Category (per subsection 62-699.310(4), F.A.C.): 5 | Plant Class (per subsection 62-699.310(4), F.A.C.): C | | | | | | | | |
| Licensed Operators Name | License Class | License Number | Da | y(s)/Shift(s) Worked | and the second | | | | |
| Lead Operator: Jonathan Delgado | C | 20135 | | 6 days per week | | | | | |
| Other Operators: | | | | | | | | | |
| | | | | | | | | | |
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| The Distanting of the | | | | | | | | | |
| S.B. O.S. Market | | | | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555.900(3) Effective August 28, 2003 04/06/21 Jonathan Delgado

Printed or Typed Name

20135 License Number

Page 1

| PWS I | PWS Identification Number: 6280049 Plant Name: GLENWOOD WATER PLANT #2 | | | | | | | | | | | | |
|--|--|-----------------|-----------|---------------------------------|---------------------------|-----------------------|-------------|----------------|----------------|-----------|-----------|---------------------------------|--|
| III. Daily Data for the Month/Year of: March, 2021 | | | | | | | | | | | | | |
| Means | Means of Achieving Four-Log Virus Inactivation/Removal: * 🗹 Free Chlorine 🗌 Chlorine Dioxide 📄 Ozone 📄 Combine Chlorine (Choramines) | | | | | | | | | | | | |
| Type of Disinfectant Residual Maintained in Distribution System: V Free Chlorine Combine Chlorine (Choramines) | | | | | | | | | | | | xide | |
| | 1000 | Section of | 11 5 1 / | CT Calculations, | or UV Dose, to | Demonstrate F | our-Log | Virus Inactiv | ation, if Appl | licable* | FEFE | | |
| 1200 | 11- 1 - Cart | A REAL PROPERTY | | S. 1. 1. 10% | CT Calcu | lations | Start . | 1. Y 2 1 1 1 1 | The state | UV | Dose | Section 1 | and the second sec |
| | | | | Lowest Residual Disinfectant | Contact Time (T) at C | Provided Before or | | 1. State | | Lowest | Minimum | Lowest Residual Disinfectant | |
| | | | | Concentration (C) | Measurement | at First | Temp. | | Minimum | Operating | UV Dose | Concentration at | |
| Day of | Hours Plant | Net Quantity of | Peak Flow | Customer During | Point During Peak Flow | During | 0I Water | Water if | Required | UV Dose, | Required, | Remote Point in | Emergency or Abnormal Operating Conditions, Repair or |
| Month | Operation | Produced, gal | Rate, gpd | Peak Flow, mg/L | minutes | Peak Flow, | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation |
| 1 | 24 | 606.000 | POL | | | | | | | | | 1.8 | |
| 2 | 24 | 833.000 | | | | | | | | | | 1.6 | |
| 3 | 24 | 841,000 | | | | | | | | | | 1.0 | |
| 4 | 24 | 721 000 | | | | | | | | | | 2.1 | |
| 5 | 24 | 991,000 | | | | | | | | | | 2.2 | |
| 6 | 24 | | | | | | | | | | | | |
| 7 | 24 | 1,547,000 | | | | | | | | | | 1.8 | |
| 8 | 24 | 801,000 | | | | | | | | | | 1.7 | |
| 9 | 24 | 570,000 | | | | | | | | (| | 1.8 | |
| 10 | 24 | 894,000 | | | | | | | | | | 1.7 | |
| 11 | 24 | 799,000 | | | | | | | | | | 1.0 | |
| 12 | 24 | 848,000 | | | | | | | | | | 1.9 | |
| 13 | 24 | | | | | | | | | | | | |
| 14 | 24 | 1,514,000 | | | | | | | | | | 2.1 | |
| 15 | 24 | 1,261,000 | | | | | | | | | | 2.3 | |
| 16 | 24 | 1,007,000 | | | | | | | | | | 1.9 | |
| 17 | 24 | 972,000 | | | | | | | | | | 1.0 | |
| 18 | 24 | 1,010,000 | | | | | | | | | | 2.3 | |
| 19 | 24 | 885,000 | | | | | | | | | | 2.1 | |
| 20 | 24 | | | | | | | | | , | | | |
| 21 | 24 | 1,718,000 | | | | | | | | | | 2.1 | |
| 22 | 24 | 603,000 | | | | | | | | | | 2.5 | |
| 23 | 24 | 826,000 | | | | | | | | | | 2.3 | |
| 24 | 24 | 942,000 | | | | | | | | | | 2.6 | |
| 25 | 24 | 915,000 | | | | | | | | | | 2.4 | |
| 26 | 24 | 1,105,000 | | | | | | | | | | 2.1 | |
| 27 | 24 | | | | | | | | | | | 1 | |
| 28 | 24 | 2,489,000 | | | | | | | | | | 2.2 | |
| 29 | | 790,000 | | | | | | | | | | 2.0 | |
| 30 | | 1,045,000 | | | | | | | | | | 2.2 | |
| 31 | | 1,228,000 | | | | | | | | | | 2.0 | |
| Total | | 27,761,000 | | | | | | | | | | | |
| Average | | 1,028,185 | | | | | | | | | | | |

2,489,000

Maximum

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6280049 Pla | ant Name: | GLENWOOD WATER PLANT #2 | | | | | | | | |
|------|---|--|-------------------|---|-----|--|--|--|--|--|--|--|
| V. S | ummary of Use of Poly | mer Containing Acrylamide, Polymer Conta | aining Epichle | orohydrin, and Iron or Manganese Sequestrant for the Year:* | 021 | | | | | | | |
| Α. | Is any polymer contain | ing the monomer acrylamide used at the water | treatment plan | nt? Vis, and the polymer dose and the acrylamide level in the polymer are as follows: | | | | | | | | |
| | Polymer Dose, ppm= | | | Acrylamide Level, $\%^{\dagger} =$ | | | | | | | | |
| В. | Is any polymer contain are as follows: | any polymer containing the monomer epichlorohydrin used at the water treatment plant? I No Yes, and the polymer dose and the epichlorohydrin level in the polymer re as follows: | | | | | | | | | | |
| | Polymer Dose, ppm= | | | Epichlorohydrin Level, % [†] = | | | | | | | | |
| C. | Is any iron or mangane | se sequestrant used at the water treatment plar | nt? 🗹 N | Yes, and the type of sequestrant, sequestrant dose, etc., are as follows: | | | | | | | | |
| | Type of Sequestrant (p | olyphosphate or sodium silicate): | | | | | | | | | | |
| | Sequestrant Dose, mg/ | L of phosphate as PO4 or mg/L of silicate as S | iO ₂ = | 1.75852 mg/L | | | | | | | | |
| | If sodium silicate is us | ed, the amount of added plus naturally occurring | ng silicate, in r | ng/L as SiO ₂ = | | | | | | | | |
| | | | | | | | | | | | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

† Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.

| IDE DRIVE OF ONE NUMEY CYT ONE March 2021 IDE DRIVE OF ONE NUMEY CYT ONE March 2021 Draw of Anderse Four-Log View Instruction, of Angelands Continue Obview (Choramines) One of Derive Double Draw of Numey Characteristics Contracteristics Contracteristics Derive Obview (Choramines) One of Derive Reside Dave of Index Marc Net Quarty of Park System Free Chorine Contracteristics Derive Reside Derive Reside Diversities Contracteristics Provide Tori-Log View Instruction, of Angelands Deriver Reside Deriver Reside Diversities Contracteristics Contracteristics Marcine Diversities Deriver Reside Nome Operation Provided Contracteristics Provide Tori Provide Marcine | PWS I | dentificatio | on Number: | 6284111 | | | Plant Nan | ne: | Crystal La | ake Club | | | | |
|---|------------------------|--------------------------------|--|------------------------|--|---|--|-----------------------------|----------------------------------|--|---|---|--|--|
| Means of Achiveing Four-Log Virus fanct undown Rowals, " Prec Okrine Outroe Rowals Contine Obtine Contine Obtine Outroe Rowals Type of Disinfectant Residual Mulatined in Distribution System: Immed Net Area Immed Net Area <t< td=""><td>III. D</td><td>ilv Data f</td><td>or the Month</td><td>/Year of:</td><td>March, 2021</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<> | III. D | ilv Data f | or the Month | /Year of: | March, 2021 | | | | | | | | | |
| Image: | Means | of Achiev | ing Four-Log | Virus Inact | ivation/Removal | : * 🗌 Free | Chlorine | | Chlorine Dio | xide | Ozone | Con | nbine Chlorine (C | Choramines) |
| Type of Disinfectant Residual Maintained in Distribution System: Image of Distr | Ult | aviolet Radi | ation | Other ([| Describe): | | | | | | | | | |
| Image: Problem information of the state of the | Type o | f Disinfect | ant Residual N | Maintained | in Distribution S | ystem: | Free Chlorin | ne | Combine | e Chlorine (| Choramines |) | Chlorine Dic | oxide |
| Image: Provide the sector of the se | A MARCE | Sec. 13 | 1000 | | CT Calculations | , or UV Dose, to | Demonstrate | Four-Log | Virus Inactiv | ation, if App | licable* | | Taxal Mental | |
| Day of the Description of the Description Description (1) al C Description (1) al C Descripti | 10.00 | 31-12-51 | Marin B | | | CT Calcu | lations | 34 H | | | UV | Dose | | ALL CARD TO THE REAL PROPERTY AND A |
| 1 24 2000 1.4 3 24 2000 1.5 4 24 21000 1.12 4 24 21000 1.13 5 24 1800 1.14 6 24 11.3 7 24 55.00 1.15 8 24 21.000 1.13 9 24 20.00 1.13 9 24 20.00 1.15 10 24 20.00 1.5 11 24 22.00 1.5 12 24 20.00 1.5 11 24 22.00 1.5 12 24 20.00 1.5 13 24 20.00 1.5 14 24 20.00 1.5 15 24 20.00 1.5 16 24 20.00 1.5 17 24 20.00 1.5 18 24 20.00 1.5 19 24 20.00 <td>Day of the Month</td> <td>Hours Plant in Operation</td> <td>Net Quantity of Finished Water Produced, gal</td> <td>Peak Flow Rate, gpd</td> <td>Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L</td> <td>Disinfectant Contact Time (T) at C Measurement Point During Peak Flow,</td> <td>Lowest CT Provided Before or at First Customer During</td> <td>Temp. of Water, OC</td> <td>pH of Water, if Applicable</td> <td>Minimum CT Required, mg-min/L</td> <td>Lowest Operating UV Dose, mW- sec/cm2</td> <td>Minimum UV Dose Required, mW- sec/cm2</td> <td>Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L</td> <td>Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System Components Out of Operation</td> | Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Disinfectant Contact Time (T) at C Measurement Point During Peak Flow, | Lowest CT Provided Before or at First Customer During | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 2 24 19,000 1.5 3 24 20,000 1.3 4 24 21,000 1.3 5 24 18,000 1.4 6 24 1.4 1.4 7 24 56,000 1.5 8 24 21,000 1.3 9 24 21,000 1.3 9 24 21,000 1.3 9 24 21,000 1.5 10 24 19,000 1.5 11 24 22,000 1.5 12 24 23,000 1.5 13 24 20,000 1.5 14 24 20,000 1.5 15 24 27,000 1.5 16 24 20,000 1.5 17 24 21,000 1.5 18 24 22,000 1.5 18 24 22,000 1.6 21 24,000 1.6 2.0 24 | I | 24 | 20,000 | | | | - | | | | | | 1.4 | |
| 3 24 2000 1.2 4 24 21000 1.3 5 24 18,000 1.4 6 24 1.4 1.4 7 24 56,000 1.5 8 24 21,000 1.5 9 24 22,000 1.5 10 24 9,000 1.5 11 24 22,000 1.5 12 24 0,000 1.5 13 24 22,000 1.5 14 24 0,000 1.5 15 24 27,000 1.5 14 24 20,000 1.5 15 24 27,000 1.5 16 24 27,000 1.5 17 24 20,000 1.5 18 24 22,000 1.5 18 24 22,000 1.6 19 24 20,000 1.6 22 24 18,000 1.6 23 | 2 | 24 | 19,000 | | | | | | | | | | 1.5 | |
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| 5 24 18,000 Image: state s | 4 | 24 | 21,000 | | | | | | | | | | 1.3 | |
| 6 24 \sim < | 5 | 24 | 18,000 | | | | | | | | | | 1.4 | |
| 7 24 56,000 Image: state s | 6 | 24 | | | | | | | | | | | | |
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| 10 24 19,000 Image: state | 9 | 24 | 22,000 | | · · · · · · · · · · · · · · · · · · · | | | | | | | | 1.5 | |
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| 12 24 23,000 1< | 11 | 24 | 22,000 | | | | | | | | | | 1.5 | |
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| 15 24 27,000 1.5 1.5 16 24 22,000 1.9 1.9 17 24 21,000 2.0 2.0 18 24 22,000 1.9 2.0 19 24 20,000 1.8 2.0 20 24 1.9 1.8 1.8 20 24 2.000 1.8 1.8 21 24 28,000 1.6 1.6 22 24 18,000 1.6 2.0 23 24 23,000 1.6 2.0 24 20,000 1.6 2.0 1.6 23 24 23,000 1.6 2.0 24 20,000 1.0 2.0 2.0 25 24 22,000 1.0 2.0 2.0 26 24 54,000 1.0 1.0 2.0 28 24 14,000 1.0 1.0 2.0 29 24 29,000 1.0 2.0 2.0 < | 14 | 24 | 20,000 | | | | | | | | | | 1.5 | |
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| 21 24 28,000 1.6 22 24 18,000 1.6 23 24 23,000 20 24 23,000 20 2.0 24 24,000 2.0 25 24,2000 22,000 26 24,54,000 20 27 24,24 28 24,14,000 29 24,24 29,000 24,200 30 24,57,000 31 24,21,000 | 20 | 24 | | | | | | | | | | | | |
| 22 24 18,000 1.6 23 24 23,000 2.0 24 24 20,000 2.2 25 24 22,000 2.2 26 24 54,000 2.0 27 24 2.00 2.0 28 24 14,000 2.0 29 24 29,000 2.0 30 24 57,000 1.3 | 21 | 24 | 28,000 | | | | | | | | | | 1.6 | |
| 23 24 23,000 20 2.0 24 24 20,000 2.2 25 24 22,000 2.2 26 24 54,000 2.0 27 24 2.000 2.0 28 24 14,000 2.0 29 24 29,000 2.0 30 24 57,000 2.0 30 24 57,000 2.0 31 24 27,000 1.3 | 22 | 24 | 18,000 | | | | | | | | | | 1.6 | |
| 24 20,000 2.2 25 24 22,000 26 24 54,000 27 24 2.0 28 24 14,000 29 24 29,000 30 24 57,000 31 24 21,000 31 24 21,000 31 24 21,000 | 23 | 24 | 23,000 | | | | | 1 | | | | | 2.0 | |
| 25 24 22,000 2.2 26 24 54,000 2.0 27 24 2.0 28 24 14,000 29 24 29,000 30 24 57,000 31 24 21,000 | 24 | 24 | 20,000 | | | | | | | | | | 2.2 | |
| 26 24 54,000 2.0 27 24 20 28 24 14,000 2.0 29 24 29,000 2.0 30 24 57,000 2.0 31 24 21,000 1.3 | 25 | 24 | 22,000 | | | | - | | | | | | 2.2 | |
| 27 24 4 6 6 6 1 | 26 | 24 | 54,000 | | | | | | | _ | | | 2.0 | |
| 28 24 14,000 2.0 29 24 29,000 2.0 30 24 57,000 2.0 31 24 21,000 1.3 | 27 | 24 | | | | | | | | | | | | |
| 29 24 29,000 2.0 30 24 57,000 2.0 31 24 21,000 1.3 | 28 | 24 | 14,000 | | | | | | | | - | | 2.0 | |
| 30 24 57,000 2.0 31 24 21,000 1.3 | 29 | 24 | 29,000 | | | | | | | | | | 2.0 | |
| 31 24 21,000 1.3 | 30 | 24 | 57,000 | | | | | | | | | | 2.0 | |
| (70.000 | 31 | 24 | 21,000 | | | | | | | | | | 1.3 | |
| | Total | | 679,000 | | | | | | | | | | | |
| Average 25,148.1 | Average | | 25,148.1 | | | | | | | | | | | |



See page 4 for instructions.

| I. | General Information | on for the Month/ | Year of: A | pril, 2021 | | | | | | | | |
|----|---------------------------|--|------------------------|--------------|---|---------------|----------------------|---------------|------------------------|---------|--|--|
| Α. | Public Water Syste | em (PWS) Informati | ion | | | | | | | | | |
| | PWS Name: C | CITY OF AVON PA | ARK | | | PWS | Identification Num | ber: 62 | 80049 | | | |
| | PWS Type: | Community | Non-Transient Non-C | Community | Transient Non-C | ommunity | Consecutive | 1 | | | | |
| | Number of Service | Connections at End | d of Month: 7 | 037 | | Total Populat | tion Served at End o | of Month: | 18561 | | | |
| | PWS Owner: C | CITY OF AVON PA | ARK | | | | | | | | | |
| | Contact Person: Jo | onathan Delgado | | | | Contact Perso | on's Title: | Lead Plant C | perator | | | |
| | Contact Person's M | lailing Address: | 2504 U.S. 27 SO | UTH | | City: AVO | N PARK | State: FL | Zip Code | 33825 | | |
| | Contact Person's Te | elephone Number: | 863-443-1806 | | | Contact Perso | on's Fax Number: | 863-452-107 | 8 | | | |
| | Contact Person's E- | -Mail Address: | operator@avon | park.cc | | | | | | | | |
| Β. | Water Treatment P | lant Information | | | | | | | | | | |
| | Plant Name: B | ELL STREET WA | TER PLANT #1 | | | Plant | Telephone Number | : 863-443-180 | 6 | | | |
| | Plant Address: 1 | 350 W. BELL STR | EET | 12 | | City: AVO | N PARK | State: FL | Zip Code | 33825 | | |
| | Type of Water Trea | ated by Plant: | Raw Ground Wate | r 🔄 Pur | chased Finished Water | | | | | | | |
| | Permitted Maximur | m Day Operating Ca | apacity of Plant, gall | ons per day: | 5,300,000 | | | | | | | |
| | Plant Category (per | subsection 62-699. | .310(4), F.A.C.): 4 | | Plant Class (per subsection 62-699.310(4), F.A.C.): C | | | | | | | |
| | Licensed Operato | ors | Name | | License Clas | S | License Number | | Day(s)/Shift(s) Worked | 2 STIGH | | |
| | Lead/Chief Operato | Dr: | Jonathan Delgado | | С | | 20135 | | 6 days per week | | | |
| | Other Operators: | | | | | | | | | | | |
| | | 100 m | | | | | | 7 | | | | |
| | A TOL DE MAN | and the second s | | | | | | | | | | |
| | Contraction of the second | | | | | | | | | | | |
| 2 | ANT A CONTRACT | | | | - | | | | | | | |
| | The state of the second | | | | | | | - | | | | |
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| | | the second se | | | | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555.900(3) Effective August 28, 2003 Jonathan Delgado Printed or Typed Name

05/06/21

20135 License Number

| PWS | dentificatio | on Number: | 6280049 | | | 1 | | BELL ST | REET WA | TER PLA | NT #1 | | |
|---------------|-------------------|-----------------------------------|-------------|---|--|--|-----------------------|--------------------|----------------------------|---|--|--|---|
| III. D | aily Data f | or the Month | /Year of: | April, 2021 | | | | | | | | | |
| Means | of Achiev | ing Four-Log | Virus Inact | ivation/Removal: | * 🗸 Free | Chlorine | | Chlorine Dio | xide | Ozone | Con | nbine Chlorine (C | horamines) |
| Type | f Disinfect | auon tant Residual N | Maintained | in Distribution S | vstem. | Free Chlorin | P | Combine | Chlorine (| Choramines |) | Chlorine Dic | vide |
| Type (| Distillee | lant residuar i | viantanica | CT Calculations | or UV Dore to | Demonstrate I | Fourloa | Viene Inactiv | ation if App | licable# | / | C chionne bio | ALC . |
| | 1-22-21 | 123523 | | CT Calculations | CT Calci | lations | our-Log | vitus mactivi | ation, a repp | UV | Dose | 10000 | CALL THE THE AND THE THE |
| Day of the | Hours Plant in | Net Quantity of Finished Water | Peak Flow | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mgf | Contact Time (T) at C Measurement Point During Peak Flow, minutes | Provided Before or at First Customer During Peak Flow | Temp. of Water, | pH of Water, if | Minimum CT Required, | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- | Lowest Residual Disinfectant Concentration at Remote Point in Distribution | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System |
| Monu | 24 | 937.000 | Rate, gpu | Teak How, mg/L | muldes | I Can I low, | 00 | rappileable | mg-mm L | scoreinz | secretitz | 2 1 | Components out of Operation |
| | 24 | 937,000 | | | - | | | | | | | 2.1 | |
| | 24 | 2,110,000 | | | _ | | | | | | | 4.1 | |
| 3 | 24 | 1 205 000 | | | | | - | | | | - | 24 | |
| 5 | 24 | 1,895,000 | | | | | | | | | | 2.5 | |
| 6 | 24 | 1,014,000 | | | | | | | | | | 2.3 | |
| 7 | 24 | 1,765,000 | | | | | | | | | | 2.4 | |
| 8 | 24 | 1,193,000 | | | | | | | | | | 22 | |
| 9 | 24 | 1 264 000 | | | | | | | | | | 1.7 | |
| 10 | 24 | 1,201,000 | | | | | | | | | | | |
| 11 | 24 | 3,115,000 | | | | | | | | | | 1.8 | |
| 12 | 24 | 913,000 | | | | | | | | | | 2.0 | |
| 13 | 24 | 1,236,000 | | | | | | | | | | 1.5 | |
| 14 | 24 | 1,343,000 | | | | | | | | | | 1.7 | |
| 15 | 24 | 1,457,000 | | | | | | | | | | 1.9 | |
| 16 | 24 | 1,350,000 | | | | | | | | | | 2.6 | |
| 17 | 24 | | | | | | | | | 1 | | | |
| 18 | 24 | 2,819,000 | | | | | | | | | | 2.0 | |
| 19 | 24 | 1,283,000 | | | | | | | | | | 2.2 | |
| 20 | 24 | 1,155,000 | | | | - | | | | | | 1.9 | |
| 21 | 24 | 1,826,000 | | | | | | | | | | 2.0 | |
| 22 | 24 | 671,000 | | | | | | | | | | 1.9 | |
| 23 | 24 | 1,357,000 | | | | | | | | | | 2.1 | |
| 24 | 24 | | | | | | | | | | | | |
| 25 | 24 | 2,374,000 | | | | | | | | | | 1.9 | |
| 26 | 24 | 1,357,000 | | | | | | | | | | 1.9 | |
| 27 | 24 | 1,329,000 | | | | | | | | | | 1.9 | |
| 28 | 24 | 924,000 | | | | | | | | | | 1.8 | |
| 29 | 24 | 1,024,000 | | | | | | | | | | 1.9 | |
| 30 | 24 | 2,512,000 | | | | | | | | | | 1.8 | |
| | | 20.010.000 | | | | | | | | | | | |
| Total | | 1 535 208 | | | | | | | | | | | |
| Maximu | m | 3,115.000 | | | | | | | | | | | |
* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6280049 | Plant Name: | BELL STREET WATER PLANT #1 | |
|-------|---|---|--------------------------|--|------|
| IV. S | ummary of Use of Poly | mer Containing Acrylamide, Polyme | er Containing Epichle | lorohydrin, and Iron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | | | | ✓ No Yes, and the polymer dose and the acrylamide level in the polymer are as follows: | |
| | Polymer Dose, ppm= | | | Acrylamide Level, $\%^{\dagger} =$ | |
| Β. | Is any polymer contain are as follows: | ing the monomer epichlorohydrin used | l at the water treatmen | nt plant? I No Yes, and the polymer dose and the epichlorohydrin level in the polymer | |
| | Polymer Dose, ppm= | | | Epichlorohydrin Level, $\%^{\dagger} =$ | |
| C. | Is any iron or mangane | se sequestrant used at the water treatm | ent plant? | No Ves, and the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (p | olyphosphate or sodium silicate): | polyphosphate | | |
| | Sequestrant Dose, mg/ | L of phosphate as PO4 or mg/L of silic | ate as $SiO_2 =$ | 0 mg/L | |
| | If sodium silicate is us | ed, the amount of added plus naturally | occurring silicate, in r | mg/L as $SiO_2 =$ | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

† Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



| See page 4 for instructions. | | | | | | | |
|---|---|------------------------|--------------------------------|-----------------------|----------------------|-----------|--|
| I. General Information fo | r the Month/Year of: April, 2021 | | | | | | |
| A. Public Water System (P | WS) Information | | | | | | |
| PWS Name: CITY | OF AVON PARK | | PWS Identification N | umber: 6280 | 049 | | |
| PWS Type: 🗸 Com | Imunity Non-Transient Non-Community | Transient Non- | Community Consecu | tive | | | |
| Number of Service Con | nections at End of Month: 7037 | | Total Population Served at En | d of Month: | 18561 | | |
| PWS Owner: CITY | OF AVON PARK | | | | | | |
| Contact Person: Jonath | an Delgado | | Contact Person's Title: | Lead Plant Ope | erator | | |
| Contact Person's Mailin | g Address: 2504 U.S. 27 SOUTH | | City: AVON PARK | State: FL | Zip Code: | 33825 | |
| Contact Person's Teleph | one Number: 863-443-1806 | | Contact Person's Fax Number: | 863-452-1078 | | | |
| Contact Person's E-Mail | Address: operator@avonpark.cc | | | | | | |
| B. Water Treatment Plant I | nformation | | | | | | |
| Plant Name: GLEN | WOOD WATER PLANT #2 | | Plant Telephone Num | ber: 863-443-1806 | | | |
| Plant Address: 100 S. | GLENWOOD AVENUE | | City: AVON PARK | State: FL | Zip Code: | 33825 | |
| Type of Water Treated I | oy Plant: 🗸 Raw Ground Water 🗌 Pu | urchased Finished Wate | r | | | | |
| Permitted Maximum Da | y Operating Capacity of Plant, gallons per day: | 1,700,000 | | | | | |
| Plant Category (per subs | section 62-699.310(4), F.A.C.): 5 | | Plant Class (per subsection 62 | -699.310(4), F.A.C.): | 310(4), F.A.C.): C | | |
| Licensed Operators | Name | License Cla | ss License Number | Da | y(s)/Shift(s) Worked | State St. | |
| Lead Operator: | Jonathan Delgado | C | 20135 | 1.01 | 6 days per week | | |
| Other Operators: | | | | | | | |
| | | | | | | | |
| A CONTRACTOR OF | | | | | | | |
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| the state of the state of the | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date

05/06/21 Jonathan Delgado

Printed or Typed Name

20135 License Number

DEP Form 62-555.900(3) Effective August 28, 2003

| PWS I | dentificatio | on Number: | 6280049 | | | Plant Nam | ne: | GLENWO | DOD WAT | ER PLAN | JT #2 | | |
|---------|--------------|-----------------------|-------------|--|--|---|-------------|-------------------|---------------------------|---------------------------------|---------------------------------|--|---|
| III. D | aily Data f | or the Month | /Year of: | April, 2021 | | | | | | | | | |
| | of Achiev | ing Four-Log ation | Virus Inact | ivation/Removal: Describe): | * 🗸 Free | Chlorine | | Chlorine Dio | xide [| Ozone | Con | nbine Chlorine (C | horamines) |
| Type o | of Disinfect | ant Residual 1 | Maintained | in Distribution S | ystem: | Free Chlorin | e | Combine | Chlorine (| Choramines |) | Chlorine Dio | xide |
| | Res M | Care Land | 1 124 2.52 | CT Calculations | or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiv | ation, if Appl | licable* | all is | 1. 31 P 10 | LAND COMPANY THE ATLANT |
| 5.34 | A CONTRACT | | | | CT Calcu | lations | | | 1 | UV | Dose | 115 10 10 10 | |
| Day of | Hours Plant | Net Quantity of | Peole Flaue | Lowest Residual Disinfectant Concentration (C) Before or at First | Contact Time (T) at C Measurement Point During Back Flow | Provided Before or at First Customer | Temp. of | pH of Water if | Minimum CT Required | Lowest Operating UV Dose, | Minimum UV Dose Required, | Lowest Residual Disinfectant Concentration at Remote Point in | Emergency or Abnormal Operating Conditions; Repair or |
| Month | Operation | Produced gal | Rate, gpd | Peak Flow, mg/L | minutes | Peak Flow. | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation |
| 1 | 24 | 738 000 | Trans, Bha | s dan i to n, mg is | | | | and provide the | | | | 1.9 | competition out of operation |
| 2 | 24 | 2 090 000 | | | | | | | | | | 2.0 | |
| 3 | 24 | -,, | | | | | | | | | | | |
| 4 | 24 | 610,000 | | | | | | | | | | 2.2 | |
| 5 | 24 | 1,149,000 | | | | | | | | | | 2.0 | |
| 6 | 24 | 1,185,000 | | | | | | | | | | 2.3 | |
| 7 | 24 | 862,000 | | | | | | | | | | 3.0 | |
| 8 | 24 | 1,103,000 | | | | | | | | | | 2.8 | |
| 9 | 24 | 986,000 | | | | | | | | | | 2.4 | |
| 10 | 24 | | | | | | | | | | | | |
| 11 | 24 | 2,314,000 | | | | | | | | | | 2.1 | |
| 12 | 24 | 681,000 | | | | | 1 | | | | | 2.0 | |
| 13 | 24 | 665,000 | | | | | | | | | | 2.3 | |
| 14 | 24 | 883,000 | | | | | | | | | | 2.5 | |
| 15 | 24 | 1,002,000 | | | | | | | | | | 2.0 | |
| 16 | 24 | 1,122,000 | | | | | | | - | | | 2.4 | |
| 17 | 24 | | | | | | | | | | | | |
| 18 | 24 | 2,029,000 | | | | | | | | | | 2.3 | |
| 19 | 24 | 688,000 | | | | | | | | | | 2.3 | |
| 20 | 24 | 703,000 | | | | | | | _ | | | 2.2 | |
| 21 | 24 | 878,000 | | | | | | | | | | 2.1 | |
| 22 | 24 | 645,000 | | | | | - | | | | | 2.2 | |
| 23 | 24 | 710,000 | | | | | | | | | | 2.0 | |
| 24 | 24 | | | | | | | | | | | | |
| 25 | 24 | 1,697,000 | | | | | - | | | | | 2.0 | |
| 26 | 24 | 1,019,000 | | | | | - | | | - | - | 1.9 | |
| 27 | 24 | 1,004,000 | | | | | | | | | | 1.7 | |
| 28 | 24 | 908,000 | | | | | | | | | - | 1./ | |
| 29 | 24 | 831,000 | - | | | | | | | | | 2.0 | |
| 30 | 24 | 885,000 | | | | | | | | | | 2.0 | |
| Total | | 27 387 000 | | | | | | | | | | | |
| Average | R | 1,053,346 | | | | | | | | | | | |

2,314,000

Maximum

* Refer to the instructions for this report to determine which plants must provide this information.

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| PWS | Identification Number: | 6280049 Pla | nt Name: | GLENWOOD WATER PLANT #2 | |
|------|---|---|----------------|---|------|
| V. S | ummary of Use of Poly | mer Containing Acrylamide, Polymer Conta | ining Epich | lorohydrin, and Iron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | Is any polymer contain | ing the monomer acrylamide used at the water | treatment pla | ant? No Yes, and the polymer dose and the acrylamide level in the polymer are as follows: | |
| | Polymer Dose, ppm= | | | Acrylamide Level, % [†] = | |
| В. | Is any polymer contain are as follows: | ing the monomer epichlorohydrin used at the w | ater treatme | nt plant? I No Yes, and the polymer dose and the epichlorohydrin level in the polymer | |
| | Polymer Dose, ppm= | | | Epichlorohydrin Level, % [†] = | |
| C. | Is any iron or mangane | se sequestrant used at the water treatment plan | ? 🔽 | No Yes, and the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (p | olyphosphate or sodium silicate): | | | |
| | Sequestrant Dose, mg/ | L of phosphate as PO4 or mg/L of silicate as Si | $O_2 =$ | 1.53333 mg/L | |
| | If sodium silicate is us | ed, the amount of added plus naturally occurrin | g silicate, in | mg/L as SiO ₂ = | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

† Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



| See page 4 for instructions. | | | | | | | |
|-----------------------------------|--|--------------------------|---|-----------------|----------------------|---------|--|
| I. General Information for the M | onth/Year of: April, 2021 | | | | | | |
| A. Public Water System (PWS) Inf | ormation | | | | | | |
| PWS Name: CRYSTAL L/ | AKE WATER PLANT #7 | | PWS Identification Num | ber: 62800 | 49 | | |
| PWS Type: Community | Non-Transient Non-Community | Transient Non-Commu | inity Consecutiv | е | | | |
| Number of Service Connections | at End of Month: 506 | Total | Population Served at End | of Month: | 800 | | |
| PWS Owner: CITY OF AV | ON PARK | | | | | | |
| Contact Person: Jonathan Delg | ado | Conta | act Person's Title: | Lead Plant Open | rator | | |
| Contact Person's Mailing Addre | ss: 2504 U.S. 27 SOUTH | City: | AVON PARK | State: FL | Zip Code: | 33825 | |
| Contact Person's Telephone Nur | nber: 863-443-1806 | Conta | act Person's Fax Number: | 863-452-1078 | 10 mile | | |
| Contact Person's E-Mail Addres | s: operator@avonpark.cc | | | | | | |
| B. Water Treatment Plant Informat | ion | | | | | | |
| Plant Name: CRYSTAL LA | AKE WATER PLANT #7 | | Plant Telephone Number | : 863-443-1806 | | | |
| Plant Address: | | City: | AVON PARK | State: FL | Zip Code: | 33825 | |
| Type of Water Treated by Plant | Raw Ground Water | Purchased Finished Water | | | | | |
| Permitted Maximum Day Opera | ting Capacity of Plant, gallons per day: | 500,000 | | | | | |
| Plant Category (per subsection 6 | 2-699.310(4), F.A.C.): 5 | Plant | Plant Class (per subsection 62-699.310(4), F.A.C.): C | | | | |
| Licensed Operators | Name | License Class | License Number | Da | y(s)/Shift(s) Worked | a start | |
| Lead/Chief Operator: | Jonathan Delgado | C | 20135 | | 6 days per week | | |
| Other Operators: | | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date (DEP Form 62-555.900(3) Effective August 28, 2003 05/06/21 Jonathan Delgado

Printed or Typed Name

20135 License Number

| PWSI | dentificatio | n Number: | 6284111 | | | Plant Nam | ie: | Crystal La | ake Club | | | | |
|---------|----------------|-----------------|--|--------------------|------------------|---------------|----------|---------------|----------------|------------|-----------|------------------|---|
| III. D | ilv Data f | or the Month | /Year of: | April, 2021 | | | | | | | | | |
| Means | of Achievi | ing Four-Log | Virus Inact | ivation/Removal: | * Free | Chlorine | | Chlorine Dio | xide | Ozone | Con | bine Chlorine (C | horamines) |
| Ult | aviolet Radia | ation | Other (D | Describe): | 5. - | | | | | | | | |
| Туре с | f Disinfect | ant Residual N | Maintained | in Distribution S | ystem: | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dio | xide |
| - | State of | | | CT Calculations | , or UV Dose, to | Demonstrate 1 | Four-Log | Virus Inactiv | ation, if Appl | licable* | | | |
| | and the second | 10-20- | | | CT Calcu | lations | | | | UV | Dose | | a state water and the second |
| | | a second | Poll is | Lowest Residual | Disinfectant | Lowest CT | | | | T and the | NO | Lowest Residual | |
| 1 | | 15、161116 | 1434.0 | Concentration (C) | (T) at C | Before or | Temn | | Minimum | Operating | LIV Dose | Concentration at | |
| Day of | Hours Plant | Net Quantity of | 11200 | Before or at First | Measurement | at First | of | pH of | CT | UV Dose. | Required. | Remote Point in | Emergency or Abnormal Operating Conditions: Repair or |
| the | in | Finished Water | Peak Flow | Customer During | Point During | Customer | Water, | Water, if | Required, | mW- | mW- | Distribution | Maintenance Work that Involves Taking Water System |
| Month | Operation | Produced, gal | Rate, gpd | Peak Flow, mg/L | Peak Flow, | During | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation |
| 1 | 24 | 20,000 | ······································ | | | | | 2 | | | 2 m | 1.5 | |
| 2 | 24 | 28,000 | | | | | | | | | | 1.5 | |
| 3 | 24 | | | | | | | | | | | | |
| 4 | 24 | 61,000 | | | | | 1 | | | | | 1.6 | |
| 5 | 24 | 0 | | | | | | | | | 1 | 1.8 | |
| 6 | 24 | 30,000 | | | | | | | | | | 1.8 | |
| 7 | 24 | 21,000 | | | | | | | | | | 1.8 | |
| 8 | 24 | 46,000 | | | | | | | | | | 1.8 | |
| 9 | 24 | 11,000 | | | | | | | | | | 1.8 | |
| 10 | 24 | | | | | | | | | | | | |
| 11 | 24 | 32,000 | | | | | | | | | | 1.6 | |
| 12 | 24 | 50,000 | | | | | | | | | | 1.7 | |
| 13 | 24 | 13,000 | | | | | | | | | | 1.7 | |
| 14 | 24 | 13,000 | | | | | | | | | | 1.5 | |
| 15 | 24 | 40,000 | | | | | | | | | | 1.5 | |
| 16 | 24 | 23,000 | | | | | | | | | | 0.9 | |
| 17 | 24 | | | | | | | | | | | | |
| 18 | 24 | 11,000 | | 1 | | | | | | | | 0.9 | |
| 19 | 24 | 0 | | | | | | | | | | 0.9 | |
| 20 | 24 | 25,000 | | | | | | | | | | 1.0 | |
| 21 | 24 | 0 | | | | | | | | | | 1.0 | |
| 22 | 24 | 29,000 | | | | | | | | | | 1.1 | |
| 23 | 24 | 13,000 | | | | | 1 | | | | | 1.0 | |
| 24 | 24 | | | | | | | | | | | | |
| 25 | 24 | 40,000 | | | | | | | | | | 1.2 | |
| 26 | 24 | 22,000 | | | | | | | | | | 1.0 | |
| 27 | 24 | 37,000 | | | | | | | | | | 1.1 | |
| 28 | 24 | 22,000 | | | | | | | | | | 1.1 | |
| 29 | 24 | 23,000 | | | | | | | | | | 0.9 | |
| 30 | 24 | 33,000 | | | | | | | | | | 0.9 | |
| | | TORES | | | | | | | | | | 10.57 | |
| Total | | 643,000 | | | | | | | | | | | |
| Average | | 24,730.8 | | | | | | | | | | | |
| Maximu | n | 61,000 | | | | | | | | | | | |



| See page 4 for instruction | ons. | | | | | | | | | | | | |
|---|--|-----------------------|-----------------------------|--------------------|----------------------|-------|--|--|--|--|--|--|--|
| I. General Informatio | n for the Month/Year of: May, 2021 | | | | | | | | | | | | |
| A. Public Water Syster | n (PWS) Information | | Invia Li 10 di alta di | (2000 | 10 | | | | | | | | |
| PWS Name: CI | CYSTAL LAKE WATER PLANT #7 | Transfer New Course | PWS Identification Numb | ber: 62800 | 49 | | | | | | | | |
| PWS Type: | Community Non-Transient Non-Community | Transient Non-Commu | | | | | | | | | | | |
| Number of Service | Connections at End of Month: 506 | [Tota | Population Served at End o | f Month: | 800 | | | | | | | | |
| PWS Owner: CI | TY OF AVON PARK | | | | | | | | | | | | |
| Contact Person: Jo | nathan Delgado | Cont | act Person's Title: | Lead Plant Oper | rator | | | | | | | | |
| Contact Person's Ma | iling Address: 2504 U.S. 27 SOUTH | City: | AVON PARK | State: FL | Zip Code: | 33825 | | | | | | | |
| Contact Person's Te | ephone Number: 863-443-1806 | Cont | act Person's Fax Number: | 863-452-1078 | | | | | | | | | |
| Contact Person's E- | Mail Address: <u>operator@avonpark.cc</u> | | | | | | | | | | | | |
| B. Water Treatment Pla | Water Treatment Plant Information Plant Name: CRVSTAL LAKE WATER PLANT #7 Plant Name: R62 442 1806 | | | | | | | | | | | | |
| Plant Name: CI | LYSTAL LAKE WATER PLANT #7 | | Plant Telephone Number: | 863-443-1806 | | | | | | | | | |
| Plant Address: | | City: | AVON PARK | State: FL | Zip Code: | 33825 | | | | | | | |
| Type of Water Trea | ed by Plant: 🗹 Raw Ground Water 🗌 Pure | chased Finished Water | | | | | | | | | | | |
| Permitted Maximum | Day Operating Capacity of Plant, gallons per day: | 500,000 | | | | | | | | | | | |
| Plant Category (per | subsection 62-699.310(4), F.A.C.): 5 | Plant | Class (per subsection 62-69 | 9.310(4), F.A.C.): | 310(4), F.A.C.): C | | | | | | | | |
| Licensed Operator | s Name | License Class | License Number | Day | y(s)/Shift(s) Worked | - 30- | | | | | | | |
| Lead/Chief Operator | : Jonathan Delgado | C | 20135 | | 6 days per week | | | | | | | | |
| Other Operators: | | | | | | | | | | | | | |
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| Land and the second starting | | | | | | | | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date

06/07/21 Jonathan Delgado Printed or Typed Name 20135 License Number

DEP Form 62-555,900(3) Effective August 28, 2003

9

| PWSI | dentificatio | on Number: | 6284111 | | | Plant Nan | ne: | Crystal La | ake Club | | | | |
|------------------------|--------------------------------|--|------------------------|--|---|--|-----------------------------|----------------------------------|--|---|---|--|--|
| III. Da | ilv Data f | or the Month | /Year of: | May, 2021 | | | | | | | | | |
| Means | of Achiev | ing Four-Log | Virus Inact | ivation/Removal: | * 🗌 Free | Chlorine | | Chlorine Dio | xide | Ozone | Con | nbine Chlorine (C | horamines) |
| Ult | aviolet Radi | ation | Other (D | Describe): | | | | | | | | | |
| Type o | f Disinfect | tant Residual 1 | Maintained | in Distribution S | ystem: | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dic | xide |
| THE R. | 6 . 13 | A STATE OF | 19 19 18 1 | CT Calculations | , or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiva | ation, if App | licable* | | | FILE CONTRACTOR |
| 1000 | The second second | The state of the | | | CT Calcu | lations | - | - | 1 | UV | Dose | | |
| Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Disinfectant Contact Time (T) at C Measurement Point During Peak Flow, | Lowest CT Provided Before or at First Customer During | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | | | | | | | | | | | | |
| 2 | 24 | 20,000 | | | | | | | | | | 0.9 | |
| 3 | 24 | 26,000 | | | | | | | | | | 0.7 | |
| 4 | 24 | 21,000 | | | | | | | | | | 0.9 | |
| 5 | 24 | 22,000 | | | | | | | | | | 0.7 | |
| 6 | 24 | 19,000 | | | | | | | | | | 0.8 | |
| 7 | 24 | 27,000 | | | | | | | | | | 0.8 | |
| 8 | 24 | | | | | | | | | | | | |
| 9 | 24 | 24,000 | | | | | | | | | | 1.3 | |
| 10 | 24 | 25,000 | | | | | | | | | | 1.2 | |
| 11 | 24 | 25,000 | | | | | | | | | | 1.2 | |
| 12 | 24 | 19,000 | | | | | | | | | | 1.1 | |
| 13 | 24 | 25,000 | | | | | | | | | | 1.0 | |
| 14 | 24 | 31,000 | | | | | - | | | | | 1.0 | |
| 15 | 24 | | | | | | | | | | | | |
| 16 | 24 | 21,000 | | | | | | | | | | 1.0 | |
| 17 | 24 | 36,000 | | | | 1 | 10 | | | | | 1.1 | |
| 18 | 24 | 34,000 | | | | | | | | | | 1.1 | |
| 19 | 24 | 27,000 | | | | | | | | | | 0.3 | |
| 20 | 24 | 26,000 | | | | | | | | | | 1.0 | |
| 21 | 24 | 29,000 | | | | | | | - | | | 0.9 | |
| 22 | 24 | | | | | | - | | | | | | |
| 23 | 24 | 32,000 | | | | | - | | | | | 1.1 | |
| 24 | 24 | 30,000 | | | | | | | | - | | 0.9 | |
| 25 | 24 | 26,000 | | | | | | | | | | 1.0 | |
| 26 | 24 | 62,000 | | | | | | | | | | 0.9 | |
| 27 | 24 | 65,000 | | | | | | | | | | 1.3 | |
| 28 | 24 | 31,000 | | | | | | | | | | 0.8 | |
| 29 | 24 | 8,000 | | | | | | | | | | 0.9 | |
| 30 | 24 | | | | | | | | | | | 0.0 | |
| 31 | 24 | 30,000 | | | | | | | | | | 0.9 | |
| Average | | 28 500 0 | | | | | | | | | | | |
| Maximu | n | 65,000 | | | | | | | | | | | |



| See page 4 | 4 for instr | uctions. | | | | | | | | |
|-------------------|---|-------------------|---|------------------------|------------|---------------------------|-----------------------|------------|----------------------|--|
| I. Genera | al Inform | ation for the | Month/Year of: May, 2021 | | | | | | | |
| A. Public | Water Sy | stem (PWS) | Information | | | | | | | |
| PWS 1 | Name: | CITY OF A | VON PARK | |] | PWS Identification Num | ber: | 62800 | 49 | |
| PWS 7 | Гуре: | ✓ Communit | y Non-Transient Non-Community | Transient Non | -Community | / Consecutive | е | | | |
| Numb | er of Serv | ice Connectio | ons at End of Month: 7037 | | Total Po | pulation Served at End of | of Month: | 4 | 18561 | |
| PWS (| Owner: | CITY OF A | VON PARK | | | | | | | |
| Contac | ct Person: | Jonathan De | elgado | | Contact | Person's Title: | Lead I | Plant Oper | rator | |
| Contac | ct Person' | s Mailing Add | tress: 2504 U.S. 27 SOUTH | | City: | AVON PARK | State: | FL | Zip Code: | 33825 |
| Contac | ct Person' | s Telephone N | Number: 863-443-1806 | | Contact | Person's Fax Number: | 863-4 | 52-1078 | | |
| Contac | ct Person' | s E-Mail Add | ress: operator@avonpark.cc | | | | | | | |
| B. Water | Treatmen | t Plant Inform | nation | | | | | | | |
| Plant 1 | Name: | GLENWOO | DD WATER PLANT #2 | | I | Plant Telephone Number | : 863-4 | 43-1806 | 200 | |
| Plant / | Address: | 100 S. GLE | NWOOD AVENUE | | City: A | AVON PARK | State: | FL | Zip Code: | 33825 |
| Type of | of Water | Freated by Pla | int: 🔄 Raw Ground Water | Purchased Finished Wat | er | | | | | |
| Permit | ted Maxin | mum Day Ope | erating Capacity of Plant, gallons per da | ay: 1,700,000 | | | | | | |
| Plant C | Category (| per subsectio | n 62-699.310(4), F.A.C.): 5 | | Plant Cla | ass (per subsection 62-69 | 99.310(4), F.A.C.): C | | | |
| Lice | nsed Ope | rators | Name | License Cl | ass | License Number | | Day | y(s)/Shift(s) Worked | The state of the s |
| Lead (| Operator: | | Jonathan Delgado | C | | 20135 | | | 6 days per week | |
| Other | Operators | : | | | | | | | | |
| | Linit Covernation | | | | | | - N | | | |
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| AT THE | 1 - 7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - | the second second | | | | | - | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date

06/07/21 Jonathan Delgado Printed or Typed Name

20135 License Number

DEP Form 62-555.900(3) Effective August 28, 2003

Page 1

| PWS I | dentificatio | on Number: | 6280049 | | | Plant Nam | ne: | GLENWO | DOD WAT | TER PLAN | NT #2 | | |
|------------------------|--------------------------------|--|------------------------|--|--|---|-----------------------------|----------------------------------|--|---|---|--|--|
| III. D | aily Data f | or the Month | /Year of: | May, 2021 | | | - | | | | | | |
| Means Ult | of Achiev aviolet Radi | ing Four-Log ation | Virus Inact | ivation/Removal: Describe): | * 🗸 Free | Chlorine | | Chlorine Dio | xide | Ozone | Con | nbine Chlorine (C | horamines) |
| Type o | f Disinfect | tant Residual N | Maintained | in Distribution S | ystem: | Free Chlorin | e | Combin | e Chlorine (| Choramines |) | Chlorine Dic | xide |
| | C. LEADER | | | CT Calculations | , or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiv | ation, if App | licable* | | and the second | |
| 100 11 | Station in | Ser 19 | | | CT Calcu | lations | | | Cont of the | UV | Dose | D. Takalah | The standing of the section of the |
| Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Contact Time (T) at C Measurement Point During Peak Flow, minutes | Provided Before or at First Customer During Peak Flow, | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | | | | | | | | | | | | |
| 2 | 24 | 1,971,000 | | | | | | | | | | 1.6 | |
| 3 | 24 | 1,101,000 | | | | | | | | | | 1.8 | |
| 4 | 24 | 754,000 | | | | | | | | | | 1.9 | |
| 5 | 24 | 1,104,000 | | | | | | | | | | 1.7 | |
| 6 | 24 | 601,000 | | | | | | | | | | 1.8 | |
| 7 | 24 | 825,000 | | | | | | | | | | 1.5 | |
| 8 | 24 | | | | | | | | - | | | | |
| 9 | 24 | 1,797,000 | | | | | | | | | | 2.4 | |
| 10 | 24 | 966,000 | | | | | | | | | | 2.3 | |
| 11 | 24 | 702,000 | | | | | | | | | | 2.2 | |
| 12 | 24 | 836,000 | | | | | | | | | | 2.2 | |
| 13 | 24 | 808,000 | | | | | | | | | | 2.3 | |
| 14 | 24 | 829,000 | | | | | | | | | | 2.1 | |
| 15 | 24 | | | | | | | | | | | | |
| 16 | 24 | 1,638,000 | | | | 1 | | | | | | 1.9 | |
| 17 | 24 | 1,107,000 | | | | | | | | | | 2.0 | |
| 18 | 24 | 845,000 | | | | | | | | | | 2.1 | |
| 19 | 24 | 765,000 | | | | | | | | | | 1.9 | |
| 20 | 24 | 1,009,000 | | | | | | | | | | 2.2 | |
| 21 | 24 | 649,000 | | | | | | | | | | 2.3 | |
| 22 | 24 | | | | | | | | | | | | |
| 23 | 24 | 1,866,000 | | | | | | | | | | 2.1 | |
| 24 | 24 | 804,000 | | | | | | | | | | 2.4 | |
| 25 | 24 | 1,034,000 | | | | | | | | | | 2.8 | |
| 26 | 24 | 1,163,000 | | | | | | | | | | 2.0 | |
| 27 | 24 | 1,328,000 | | | | | | | | | | 2.2 | |
| 28 | 24 | 819,000 | | | | | | | - | | | 2.0 | |
| 29 | 24 | 1,126,000 | | | | | | | | | | 2.6 | |
| 30 | 24 | | | | 1 | | | | | | | | |
| 31 | 24 | 1,558,000 | | | | | | | | | | 2.4 | |
| Total | 1000 | 28,005,000 | | | | | | | | | | | |
| Average | | 1,077,115 | | | | | | | | | | | |
| Maximu | n | 1,971,000 | | | | | | | | | | | |

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6280049 PI | ant Name: | GLENWOOD WATER PLANT #2 | |
|-------|---|--|-------------------|---|------|
| IV. S | summary of Use of Poly | mer Containing Acrylamide, Polymer Cont | aining Epichlo | prohydrin, and Iron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | Is any polymer contain | ing the monomer acrylamide used at the wate | r treatment plan | t? Vo Yes, and the polymer dose and the acrylamide level in the polymer are as follows: | |
| | Polymer Dose, ppm= | | | Acrylamide Level, % [†] = | |
| Β. | Is any polymer contain are as follows: | ing the monomer <u>epichlorohydrin</u> used at the | water treatment | plant? I No Yes, and the polymer dose and the epichlorohydrin level in the polymer | |
| | Polymer Dose, ppm= | | | Epichlorohydrin Level, % [†] = | |
| С. | Is any iron or mangane | se sequestrant used at the water treatment plan | nt? 🗸 No | Yes, and the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (p | olyphosphate or sodium silicate): | | | |
| | Sequestrant Dose, mg/ | L of phosphate as PO4 or mg/L of silicate as S | $iO_2 =$ | 1.73 mg/L | |
| | If sodium silicate is us | ed, the amount of added plus naturally occurri | ng silicate, in n | ng/L as $SiO_2 =$ | |
| | | | | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

* Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



See page 4 for instructions.

 I. General Information for the Month/Year of:
 May, 2021

 A. Public Water System (PWS) Information
 May, 2021

| PWS Name: CI | TY OF AVON PARK | | PWS Identification Numbe | er: 628004 | 9 | |
|------------------------------|--|-------------------|------------------------------|-------------------|---------------------|----------------|
| PWS Type: | Community Non-Transient Non-Community Trans | sient Non-Communi | ty Consecutive | | | |
| Number of Service | Connections at End of Month: 7037 | Total P | opulation Served at End of | Month: | 18561 | |
| PWS Owner: Cl | TY OF AVON PARK | | | | | |
| Contact Person: Jo | nathan Delgado | Contac | t Person's Title: | Lead Plant Opera | itor | |
| Contact Person's Ma | iling Address: 2504 U.S. 27 SOUTH | City: | AVON PARK | State: FL | Zip Code | 33825 |
| Contact Person's Te | lephone Number: 863-443-1806 | Contac | t Person's Fax Number: | 863-452-1078 | | |
| Contact Person's E- | Mail Address: operator@avonpark.cc | | | | | |
| 3. Water Treatment Pla | ant Information | | | | | |
| Plant Name: BI | ELL STREET WATER PLANT #1 | | Plant Telephone Number: | 863-443-1806 | | |
| Plant Address: 13 | 50 W. BELL STREET | City: | AVON PARK | State: FL | Zip Code | 33825 |
| Type of Water Trea | ed by Plant: 🗹 Raw Ground Water 📋 Purchased Finis | shed Water | | | | |
| Permitted Maximum | Day Operating Capacity of Plant, gallons per day: 5,300,00 | 00 | | | | |
| Plant Category (per | subsection 62-699.310(4), F.A.C.): 4 | Plant C | lass (per subsection 62-699. | .310(4), F.A.C.): | C | |
| Licensed Operator | s Name Li | cense Class | License Number | Day | (s)/Shift(s) Worked | and the second |
| Lead/Chief Operator | Tonathan Delgado | C | 20135 | | 6 days per week | |
| Other Operators: | | | | | | |
| A REAL | | | | 1 | | |
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| and the second second | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

gnature and Date

Jonathan Delgado Printed or Typed Name 20135 License Number

06/07/21

| PWS I | PWS Identification Number: 6280049 BELL STREET WATER PLANT #1 | | | | | | | | | | | | |
|------------|--|-----------------------------------|------------|---|---|---|-----------------------|--------------------|----------------------------|--|--|--|---|
| III. D | aily Data f | or the Month | /Year of: | May, 2021 | | | | | | | | | |
| Means | Means of Achieving Four-Log Virus Inactivation/Removal: * 🗹 Free Chlorine 🗌 Chlorine Dioxide 🗌 Ozone 🗌 Combine Chlorine (Choramines) | | | | | | | | | | | | |
| Ult | raviolet Radi | ation | Other (D | Describe): | | | | | | | | | |
| Type c | f Disinfect | ant Residual N | Maintained | in Distribution S | ystem: 🗸 | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dio | xide |
| | | A CONTRACTOR | | CT Calculations, | or UV Dose, to | Demonstrate I | our-Log | Virus Inactiv | ation, if App | licable* | C I YELD | Child Part | |
| | 1 States | 1 States | | | CT Calcu | lations | | | | UV | Dose | | |
| Day of the | Hours Plant in | Net Quantity of Finished Water | Peak Flow | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During | Contact Time (T) at C Measurement Point During Peak Flow, | Provided Before or at First Customer During | Temp. of Water, | pH of Water, if | Minimum CT Required, | Lowest Operating UV Dose, mW- | Minimum UV Dose Required, mW- | Lowest Residual Disinfectant Concentration at Remote Point in Distribution | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System |
| Month | Operation | Produced, gal | Rate, gpd | Peak Flow, mg/L | minutes | Peak Flow, | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation |
| 1 | 24 | | | | | | 1 | | - | | | 10 | |
| 2 | 24 | 2,512,000 | 6 | | | | | | | | | 1.8 | |
| 3 | 24 | 1,541,000 | | | | | | | | | | 1.9 | |
| 4 | 24 | 926,000 | | | | | | | | | | 1.8 | |
| 5 | 24 | 1,651,000 | | | | | | | | | | 1.9 | |
| 6 | 24 | 1,388,000 | _ | | | | | | | | | 1.7 | |
| 7 | 24 | 1,180,000 | | | | | | | | | | 2.0 | |
| 8 | 24 | | | | | | | | | | | | |
| 9 | 24 | 2,773,000 | | | | | | | | | | 1.8 | |
| 10 | 24 | 1,565,000 | | | | | | | | | | 2.3 | |
| 11 | 24 | 1,298,000 | | | | | | | | _ | | 2.3 | |
| 12 | 24 | 1,544,000 | | | | | | | | | | 2.0 | |
| 13 | 24 | 1,236,000 | | | | | | | | | | 2.0 | |
| 14 | 24 | 1,182,000 | | | | | | | | | | 2.0 | |
| 15 | 24 | | | | | 1 | | | | | | | |
| 16 | 24 | 3,064,000 | | | | | | | | | | 2.0 | |
| 17 | 24 | 1,713,000 | | | | | | | | | | 2.0 | |
| 18 | 24 | 1,623,000 | | | | | | | | | | 2.1 | |
| 19 | 24 | 1,329,000 | | | | | | | | | | 2.8 | |
| 20 | 24 | 1,820,000 | | | | | | | | | | 1.2 | |
| 21 | 24 | 1,248,000 | | | | | | | | | | 2.5 | |
| 22 | 24 | | | | | | - | | | | | | |
| 23 | 24 | 3,161,000 | | | | | | | | | | 2.1 | |
| 24 | 24 | 1,437,000 | | | | | | 1 | _ | | | 2.3 | |
| 25 | 24 | 1,950,000 | | | | | | | | | | 2.3 | |
| 26 | 24 | 160,600 | | | | | _ | | | - | - | 2.6 | |
| 27 | 24 | 2,097,000 | | | | | | | | | | 2.4 | |
| 28 | 24 | 1,368,000 | | | | | | | | | | 1.9 | |
| 29 | 24 | 2,027,000 | | | | | | | | | | 2.3 | |
| 30 | 24 | | | | | | | | | | | | |
| 31 | 24 | 2,721,000 | | | | | - | | | 1 | | 2.1 | |
| Total | - | 44,514,600 | | | | | | | | | | | |
| Maximu | m | 3 161 000 | | | | | | | | | | | |

* Refer to the instructions for this report to determine which plants must provide this information.

| 2021 |
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* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

* Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



MONTHLY OPERATION REPORT FOR PWSs TREATING RAW GROUND WATER OR PURCHASED FINISHED WATER

| Se | e page 4 for instructions | | | | | | | | |
|----|------------------------------|--|-------------------------|----------------|---------------------|-----------|-----------|----------------------|-------|
| I. | General Information f | or the Month/Year of: June, 2021 | | | | | | | |
| A. | Public Water System (I | PWS) Information | | | | | _ | | |
| | PWS Name: CITY | OF AVON PARK | | PWS | Identification Num | ber: | 62800 | 49 | |
| | PWS Type: 🗹 Cor | mmunity Non-Transient Non-Community | Transient Non- | Community | Consecutive | e | | | |
| | Number of Service Cor | nnections at End of Month: 7037 | | Total Populat | ion Served at End o | of Month: | | 18561 | |
| | PWS Owner: CITY | OF AVON PARK | | | | | | | |
| | Contact Person: Jonat | han Delgado | | Contact Perso | on's Title: | Lead P | lant Oper | rator | |
| | Contact Person's Mailin | ng Address: 2504 U.S. 27 SOUTH | | City: AVO | N PARK | State: | FL | Zip Code: | 33825 |
| | Contact Person's Telep | hone Number: 863-443-1806 | | Contact Perso | n's Fax Number: | 863-45 | 2-1078 | | |
| | Contact Person's E-Ma | il Address: operator@avonpark.cc | | | | | | | |
| Β. | Water Treatment Plant | Information | | | | | | | |
| | Plant Name: GLE | NWOOD WATER PLANT #2 | | Plant | Telephone Number | : 863-44 | 3-1806 | | |
| | Plant Address: 100 S | S. GLENWOOD AVENUE | | City: AVO | N PARK | State: | FL | Zip Code: | 33825 |
| | Type of Water Treated | by Plant: 🖉 Raw Ground Water 🗌 P | Purchased Finished Wate | r | | | | | |
| | Permitted Maximum Da | ay Operating Capacity of Plant, gallons per day: | 1,700,000 | | | | | | |
| | Plant Category (per sub | section 62-699.310(4), F.A.C.): 5 | | Plant Class (p | er subsection 62-69 | 9.310(4), | F.A.C.): | C | |
| | Licensed Operators | Name | License Cla | ISS | License Number | | Day | y(s)/Shift(s) Worked | |
| | Lead Operator: | Jonathan Delgado | C | | 20135 | | | 6 days per week | |
| | Other Operators: | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | _ | | |
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| | A CONTRACTOR OF THE | | | | | | | | |
| | Charles and | | | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555.900(3) Effective August 28, 2003 07/06/21 Jonathan Delgado

Printed or Typed Name

20135 License Number

| PWSI | PWS Identification Number: 6280049 Plant Name: GLENWOOD WATER PLANT #2 | | | | | | | | | | | | |
|------------------------|--|--|------------------------|--|--|---|-----------------------------|----------------------------------|--|---|---|--|---|
| III. D | aily Data f | or the Month | /Year of: | June, 2021 | | | | | | | | | |
| Means | Means of Achieving Four-Log Virus Inactivation/Removal: * 🗹 Free Chlorine 🗌 Chlorine Dioxide 📄 Ozone 📄 Combine Chlorine (Choramines) | | | | | | | | | | | | |
| Type | of Disinfect | ant Residual 1 | Maintained | in Distribution S | vstem: | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dio | xide |
| - 21 | Children Co | I DATE OF | 100000 | CT Calculations | , or UV Dose, to | Demonstrate I | our-Log | Virus Inactiv | ation, if Appl | icable* | | Contraction of the | |
| a second second | | a starting | | | CT Calcu | lations | | | | UV | Dose | The fille legal | and the second states |
| Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Contact Time (T) at C Measurement Point During Peak Flow, minutes | Provided Before or at First Customer During Peak Flow, | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | 1,501,000 | | | | | 1 | | | | | 2.6 | |
| 2 | 24 | 759,000 | | | | | | | | | | 2.4 | |
| 3 | 24 | 1,000,000 | | | | | | | | | | 2.2 | |
| 4 | 24 | 1,486,000 | | | | | | | | | | 2.6 | |
| 5 | 24 | | | | | | | | | | | | |
| 6 | 24 | 1,457,000 | | | | | | | | | | 2.3 | |
| 7 | 24 | 804,000 | | | | | | | | | | 2.6 | |
| 8 | 24 | 853,000 | | | | | | | | | | 2.0 | |
| 9 | 24 | 906,000 | | | | | | | | | | 2.6 | |
| 10 | 24 | 1,040,000 | | | | | | | | | | 2.8 | |
| 11 | 24 | 801,000 | | | | | | | | | | 2.0 | |
| 12 | 24 | | | | | | | | | | | | |
| 13 | 24 | 1,751,000 | | | | | | | | | | 2.4 | |
| 14 | 24 | 976,000 | | | | | | | | | | 2.0 | |
| 15 | 24 | 646,000 | | · · · · · · · · · · · · · · · · · · · | | | | | | | | 2.8 | |
| 16 | 24 | 700,000 | | | | | | | | | | 1.9 | |
| 17 | 24 | 621,000 | | | | | | | | | | 2.2 | |
| 18 | 24 | 760,000 | | | | | | | | | | 2.4 | |
| 19 | 24 | | | | | | _ | _ | | | | | |
| 20 | 24 | 1,372,000 | | | | | - | | | | | 2.4 | |
| 21 | 24 | 789,000 | | | | | | | | | | 1.0 | |
| 22 | 24 | 475,000 | | | | | 1 | | | | | 2.4 | |
| 23 | 24 | 637,000 | | | | | | | | _ | | 2.2 | |
| 24 | 24 | 777,000 | | | | | | | | | | 2.3 | |
| 25 | 24 | 583,000 | | | | | | | | | | 2.3 | |
| 26 | 24 | | | | | | | | | | | | |
| 27 | 24 | 1,239,000 | | | | | | | | | | 2.1 | |
| 28 | 24 | 927,000 | | | | | | | | | | 2.2 | |
| 29 | 24 | 682,000 | | | | | | _ | | | | 2.0 | |
| 30 | 24 | 673,000 | | | | | - | | | | | 2.3 | |
| Total | | 24 215 000 | | | | | | | | | | | |
| Average | | 931,346 | | | | | | | | | | | |

1,751,000

Maximum

* Refer to the instructions for this report to determine which plants must provide this information.

1

| PWS | Identification Number: | 6280049 P | lant Name: | GLENWOOD WATER PLANT #2 | |
|------|---|--|-------------------|--|-----|
| V. S | ummary of Use of Poly | mer Containing Acrylamide, Polymer Con | taining Epichl | orohydrin, and Iron or Manganese Sequestrant for the Year:* | 021 |
| Α. | Is any polymer contain | ing the monomer acrylamide used at the wate | er treatment pla | nt? Vo Sec. and the polymer dose and the acrylamide level in the polymer are as follows: | |
| | Polymer Dose, ppm= | | | Acrylamide Level, $\%^{\dagger} =$ | |
| Β. | Is any polymer contain are as follows: | ing the monomer epichlorohydrin used at the | water treatmen | at plant? I No Yes, and the polymer dose and the epichlorohydrin level in the polymer | |
| | Polymer Dose, ppm= | | | Epichlorohydrin Level, $\%^{\dagger} =$ | |
| C. | Is any iron or mangane | se sequestrant used at the water treatment pla | ant? 🗹 N | Ves, and the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (p | olyphosphate or sodium silicate): | | | |
| | Sequestrant Dose, mg/ | L of phosphate as PO4 or mg/L of silicate as | $SiO_2 =$ | 1.84 mg/L | |
| | If sodium silicate is us | ed, the amount of added plus naturally occurr | ring silicate, in | mg/L as $SiO_2 =$ | |
| | | | | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

† Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



See page 4 for instructions.

| I. | General Informat | ion for the M | onth/Year of: June, 202 | 21 | | | | | | |
|------|---------------------------------------|--|------------------------------------|-------------------------|-----------|--------------------------------|-----------|------------|----------------------|-------|
| A. | Public Water Syst | em (PWS) Info | ormation | | | | | | | |
| | PWS Name: | CITY OF AVO | ON PARK | | | PWS Identification Numb | per: | 62800 | 49 | |
| | PWS Type: | Community | Non-Transient Non-Communi | ty Transient Non- | -Communit | y Consecutive | | | | |
| | Number of Service | e Connections | at End of Month: 7037 | | Total P | opulation Served at End o | f Month: | | 18561 | |
| | PWS Owner: | CITY OF AVO | ON PARK | | | | | | | |
| | Contact Person: . | Jonathan Delga | ado | | Contact | Person's Title: | Lead 1 | Plant Oper | ator | |
| | Contact Person's M | Mailing Addres | ss: 2504 U.S. 27 SOUTH | | City: | AVON PARK | State: | FL | Zip Code | 33825 |
| | Contact Person's T | Felephone Nun | nber: 863-443-1806 | | Contact | Person's Fax Number: | 863-4 | 52-1078 | | |
| | Contact Person's E | E-Mail Address | s: operator@avonpark.co | 2 | | | | | | |
| B. | Water Treatment I | Plant Informati | ion | | | | | | | |
| | Plant Name: 1 | BELL STREE | T WATER PLANT #1 | | | Plant Telephone Number: | 863-44 | 43-1806 | | |
| | Plant Address: | 1350 W. BELI | STREET | | City: | AVON PARK | State: | FL | Zip Code | 33825 |
| | Type of Water Tre | eated by Plant: | Raw Ground Water | Purchased Finished Wate | er | | | | | _ |
| | Permitted Maximu | um Day Operat | ing Capacity of Plant, gallons per | day: 5,300,000 | | | 100 | | | |
| | Plant Category (pe | er subsection 6 | 2-699.310(4), F.A.C.): 4 | | Plant C | ass (per subsection 62-69 | 9.310(4), | F.A.C.): | C | |
| | Licensed Operat | tors | Name | License Cl | ass | License Number | | Da | y(s)/Shift(s) Worked | |
| | Lead/Chief Operat | tor: | Jonathan Delgado | C | | 20135 | | | 6 days per week | |
| | Other Operators: | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | _ | | |
| | | 2 70 | | | | | | | | |
| | · · · · · · · · · · · · · · · · · · · | The state of the s | | | | | | | | |
| | A PERSON AND | 202 | | | | | | | | |
| | - The Valla | Sec. 20 | | | | | | | | |
| - 19 | | and the second s | | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555 900(3) Effective August 28, 2003 07/06/21

Jonathan Delgado Printed or Typed Name 20135 License Number

Page 1

| PWSI | PWS Identification Number: 6280049 BELL STREET WATER PLANT #1 | | | | | | | | | | | | |
|------------------------|---|--|------------------------|--|--|---|-----------------------------|----------------------------------|--|---|---|--|--|
| III. D | nily Data f | or the Month | /Year of: | June, 2021 | | | | | | | | | |
| Means Ult | Aleans of Achieving Four-Log Virus Inactivation/Removal: * Image: Free Chlorine Chlorine Dioxide Ozone Combine Chlorine (Choramines) Intraviolet Radiation Image: Other (Describe): Image: Other (Describe): Image: Other (Describe): | | | | | | | | | | | | |
| Type o | f Disinfect | ant Residual I | Maintained | in Distribution S | ystem: | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Did | xide |
| | | and the second second | | CT Calculations | or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiv | ation, if App | licable* | 100 | The second | |
| E AVEN | the state | Server and a state | | | CT Calcu | lations | | 774 HIL - 1877 HIL - 1914 | | UV | Dose | Carlos The State | and the second sec |
| Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Contact Time (T) at C Measurement Point During Peak Flow, minutes | Provided Before or at First Customer During Peak Flow, | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | 2,518,000 | | | | | | | | | | 2.2 | |
| 2 | 24 | 1,185,000 | | | | | | | | | | 2.4 | |
| 3 | 24 | 1,634,000 | | | | | | | | | | 2.3 | |
| 4 | 24 | 652,000 | | | | | | | | | | 2.0 | |
| 5 | 24 | | | | | | | | | | | | |
| 6 | 24 | 1,512,000 | | | | | | | | | | 2.0 | |
| 7 | 24 | 2,207,000 | | | | | | | | | | 1.9 | |
| 8 | 24 | 1,549,000 | | | | | | | | | | 2.3 | |
| 9 | 24 | 1,696,000 | | | | | | | | | | 2.0 | |
| 10 | 24 | 1,524,000 | | | | | | | | | | 2.2 | |
| 11 | 24 | 1,442,000 | | | | | | | | | | 2.4 | |
| 12 | 24 | | | | | | | | | | | | |
| 13 | 24 | 2,962,000 | | | | | | | | | | 2.0 | |
| 14 | 24 | 1,723,000 | | | | | | | | | | 1.6 | |
| 15 | 24 | 1,216,000 | | | | | | | | | | 2.6 | |
| 16 | 24 | 1,275,000 | | | | | | | | | | 2.8 | |
| 17 | 24 | 1,182,000 | | | | | | | | | | 2.9 | |
| 18 | 24 | 1,260,000 | | | | | | | | | | 2.0 | |
| 19 | 24 | | | | | | | | | | | | |
| 20 | 24 | 2,343,000 | | | | | | | | | | 2.1 | |
| 21 | 24 | 1,439,000 | | | | | | | | | | 2.0 | |
| 22 | 24 | 1,520,000 | | | | | | | | | | 2.2 | |
| 23 | 24 | 1,372,000 | | | | | | | | | | 2.3 | |
| 24 | 24 | 1,211,000 | | | | | | | | | | 2.3 | |
| 25 | 24 | 1,069,000 | | | | | | | | | | 2.3 | |
| 26 | 24 | | | | | _ | | | | | | | |
| 27 | 24 | 2,202,000 | | | | | | | | | | 2.5 | |
| 28 | 24 | 970,000 | | | | | | | | _ | | 2.3 | |
| 29 | 24 | 1,402,000 | | | | | | | | | | 2.0 | |
| 30 | 24 | 1,056,000 | | | | | | | | | | 1.8 | |
| | | | | | | | | | | | | | |
| Total | DET SON | 40,121,000 | | | | | | | | | | | |
| Maximu | n | 2,962,000 | | | | | | | | | | | |

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6280049 | Plant Name: | BELL STREET WATER P | 'LANT #I | |
|-------|---|--|-----------------------------|---------------------------------------|--|---------------|
| IV. S | ummary of Use of Poly | ner Containing Acrylamide, Polyn | ner Containing Epich | rohydrin, and Iron or Mai | nganese Sequestrant for the Year:* | 2021 |
| Α. | | | | 🗹 No 🗌 Yes, an | the polymer dose and the acrylamide level in the polymer are | e as follows: |
| | Polymer Dose, ppm= | | | Acrylamide Level, % [†] = | | |
| В. | Is any polymer contain are as follows: | ng the monomer <u>epichlorohydrin</u> us | ed at the water treatment | plant? 🔽 No 🗌 Ye | es, and the polymer dose and the epichlorohydrin level in the po | olymer |
| | Polymer Dose, ppm= | | | Epichlorohydrin Level, % [†] | = | |
| C. | Is any iron or mangane | se sequestrant used at the water treat | ment plant? | ✓ Yes, and the type of s | sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (po | olyphosphate or sodium silicate): | polyphosphate | | | |
| | Sequestrant Dose, mg/I | of phosphate as PO4 or mg/L of sil | icate as SiO ₂ = | 0.245 mg/L | | |
| | If sodium silicate is use | d, the amount of added plus natural | ly occurring silicate, in | ig/L as SiO ₂ = | | |
| | | | | | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

† Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



| See page 4 | for instruction | 1S. | | | | | | |
|------------|-----------------|---|----------------------|---------|-------------------------------|--------------------|----------------------|-------|
| I. General | Information | for the Month/Year of: June, 2021 | | | | | | |
| A. Public | Water System | (PWS) Information | | | | | | |
| PWS N | ame: CR | YSTAL LAKE WATER PLANT #7 | | | PWS Identification Num | ber: 62800 | 49 | |
| PWS T | ype: 🗸 🤇 | Community Non-Transient Non-Community | Transient Non- | Communi | ty Consecutive | e | | |
| Number | r of Service C | onnections at End of Month: 506 | | Total F | opulation Served at End of | of Month: | 800 | |
| PWS O | wner: CIT | Y OF AVON PARK | | | | | | |
| Contact | Person: Jon | athan Delgado | | Contac | t Person's Title: | Lead Plant Oper | rator | |
| Contact | Person's Mai | ling Address: 2504 U.S. 27 SOUTH | | City: | AVON PARK | State: FL | Zip Code: | 33825 |
| Contact | Person's Tele | phone Number: 863-443-1806 | | Contac | t Person's Fax Number: | 863-452-1078 | | |
| Contact | Person's E-M | ail Address: operator@avonpark.cc | | | | | | |
| B. Water T | Freatment Pla | nt Information | | | | | | |
| Plant N | ame: CR | YSTAL LAKE WATER PLANT #7 | | | Plant Telephone Number | : 863-443-1806 | | |
| Plant A | ddress: | | | City: | AVON PARK | State: FL | Zip Code: | 33825 |
| Type of | Water Treate | d by Plant: 🛛 Raw Ground Water 🗌 Purc | chased Finished Wate | r | | | | |
| Permitte | ed Maximum | Day Operating Capacity of Plant, gallons per day: | 500,000 | | | | | |
| Plant Ca | ategory (per s | ubsection 62-699.310(4), F.A.C.): 5 | | Plant C | lass (per subsection 62-69 | 9.310(4), F.A.C.): | С | |
| Licen | sed Operators | Name | License Cla | ISS | License Number | Day | y(s)/Shift(s) Worked | 1.33 |
| Lead/Cl | hief Operator: | Jonathan Delgado | C | | 20135 | | 6 days per week | |
| Other O | perators: | | | | | | | |
| | | | | | | | | |
| | 2 | | | | | | | |
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| | 1950 1991 | | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555.900(3) Effective August 28, 2003 07/06/21 Jonathan Delgado

Printed or Typed Name

20135

License Number

| PWS | dentificatio | on Number: | 6284111 | | | Plant Nam | ne: | Crystal La | ake Club | | | | |
|---|--------------------------------|--|------------------------|--|---|--|-----------------------------|----------------------------------|--|---|---|--|--|
| III. Daily Data for the Month/Year of: June, 2021 | | | | | | | | | | | | | |
| Means | of Achiev | ing Four-Log ation | Virus Inact | ivation/Removal: Describe): | * Free | Chlorine | | Chlorine Dio | xide [|] Ozone | Con | nbine Chlorine (C | horamines) |
| Type o | f Disinfect | ant Residual N | Maintained | in Distribution S | ystem: | Free Chlorin | e | Combine | Chlorine (| Choramines |) | Chlorine Dio | xide |
| | 1 | The second second | 100 | CT Calculations | or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiv | ation, if App | licable* | a line | A CONTRACTOR | LINE REPORT OF THE REPORT OF THE |
| 13 191 | the state of the | Pro 1 | - | | CT Calcu | lations | asedon max | | | UV | Dose | Part Sand | All The Part of the second is |
| Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Disinfectant Contact Time (T) at C Measurement Point During Peak Flow, | Lowest CT Provided Before or at First Customer During | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions, Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | 20,000 | | | | | | | | | | 0.9 | |
| 2 | 24 | 27,000 | | | | | | | | | | 0.9 | |
| 3 | 24 | 23,000 | | | | | | | | | | 1.3 | |
| 4 | 24 | 24,000 | | | | | | | | | | 2.2 | |
| 5 | 24 | | | | | | | | | | | | |
| 6 | 24 | 40,000 | | | | | | | | | | 1.7 | |
| 7 | 24 | 28,000 | | | | | | | | | | 1.9 | |
| 8 | 24 | 29,000 | 1 | | | | | | | | | 2.3 | |
| 9 | 24 | 32,000 | | | | | | | | | | 0.6 | |
| 10 | 24 | 26,000 | | | | | | | | | | 0.8 | |
| 11 | 24 | 38,000 | | | | | | | | | | 1.9 | |
| 12 | 24 | | | | | | | | | | | | |
| 13 | 24 | 47,000 | | | | | | | | | | 0.8 | |
| 14 | 24 | 25,000 | | | | | | | | | | 2.0 | |
| 15 | 24 | 22,000 | | | | - | | | | | | 1.6 | |
| 16 | 24 | 19,000 | | | | | | | | | | 0.9 | |
| 17 | 24 | 0 | | | | | | | | | | 1.2 | |
| 18 | 24 | 41,000 | | | | | | | | | | 1.8 | |
| 19 | 24 | | | | | | | | | | | | |
| 20 | 24 | 23,000 | | | | | | | | | | 1.0 | |
| 21 | 24 | 37,000 | | | | | | | | | | 1.8 | |
| 22 | 24 | 23,000 | | | | | | | | | | 2.0 | |
| 23 | 24 | 0 | | | | | | | | | | 1.3 | |
| 24 | 24 | 25,000 | | | | | | | | | | 1.4 | |
| 25 | 24 | 21,000 | | | | | | | | | | 2.2 | |
| 26 | 24 | | | | | | | | | | | | |
| 27 | 24 | 30,000 | | | | | | | | | | 1.9 | |
| 28 | 24 | 0 | | | | | | | | | | 2.1 | |
| 29 | 24 | 24,000 | | | | | | | | | | 2.0 | |
| 30 | 24 | 0 | | | | | | | | | | 1.8 | |
| | | 100000 | | | | | | | | | | | |
| Total | CHERNEL CHERNEL | 624,000 | | | | | | | | | | | |
| Maximu | m | 47,000 | | | | | | | | | | | |



See page 4 for instructions.

I. General Information for the Month/Year of: July, 2021

| A. Public Water System (PWS) | Information | | | | | |
|---|---|--------------------------|-----------------------------|------------------|------------------------|-------|
| PWS Name: CITY OF A | AVON PARK | | PWS Identification Num | ber: 628 | 0049 | |
| PWS Type: 🗹 Communi | ty Non-Transient Non-Community | Transient Non-Commun | ity Consecutive | e | | |
| Number of Service Connection | ons at End of Month: 7037 | Total I | Population Served at End of | of Month: | 18561 | |
| PWS Owner: CITY OF A | AVON PARK | | | | | |
| Contact Person: Jonathan D | elgado | Contac | t Person's Title: | Lead Plant Op | perator | |
| Contact Person's Mailing Ad | dress: 2504 U.S. 27 SOUTH | City: | AVON PARK | State: FL | Zip Code | 33825 |
| Contact Person's Telephone | Number: 863-443-1806 | Contac | t Person's Fax Number: | 863-452-1078 | | |
| Contact Person's E-Mail Add | ress: operator@avonpark.cc | | | | | |
| B. Water Treatment Plant Inform | nation | | | | | |
| Plant Name: BELL STR | EET WATER PLANT #1 | | Plant Telephone Number | : 863-443-1806 | | |
| Plant Address: 1350 W. B. | ELL STREET | City: | AVON PARK | State: FL | Zip Code | 33825 |
| Type of Water Treated by Pla | ant: 🔄 Raw Ground Water 🔄 P | Purchased Finished Water | | | | |
| Permitted Maximum Day Op | erating Capacity of Plant, gallons per day: | 5,300,000 | | | | |
| Plant Category (per subsection | n 62-699.310(4), F.A.C.): 4 | Plant C | lass (per subsection 62-69 | 9.310(4), F.A.C. |): C | |
| Licensed Operators | Name | License Class | License Number | | Day(s)/Shift(s) Worked | |
| Lead/Chief Operator: | Jonathan Delgado | C | 20135 | | 6 days per week | |
| Other Operators: | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEF Form 62-555 900(3)

Jonathan Delgado Printed or Typed Name 20135 License Number

Effective August 28, 2003

Page 1

08/03/21

| PWS Identification Number: 6280049 BELL STREET WATER PLANT #1 | | | | | | | | | | | | | |
|---|--|-----------------|------------|--|---|---|-------------|----------------|----------------|---------------------------------|---------------------------------|--|---|
| III. Da | III. Daily Data for the Month/Year of: July, 2021 | | | | | | | | | | | | |
| Means | Means of Achieving Four-Log Virus Inactivation/Removal: * 🗹 Free Chlorine 🗌 Chlorine Dioxide 📄 Ozone 📄 Combine Chlorine (Choramines) | | | | | | | | | | | | |
| Type o | f Disinfect | ant Residual | Maintained | in Distribution S | ystem: | Free Chlorin | e | Combine | e Chlorine ((| Choramines |) | Chlorine Dio | xide |
| 1.1.1.1. | 2 . 2 . 2 . 2 | States The | AND DECK | CT Calculations | , or UV Dose, to | Demonstrate I | our-Log | Virus Inactiv | ation, if Appl | licable* | 1515 | CHIEF COL | CONTRACTOR STREET |
| 27 | Carl Star | To a Margare | | a second of | CT Calcu | lations | 1 | and the second | | UV | Dose | 1.3 | |
| Day of | Hours Plant | Net Quantity of | | Lowest Residual Disinfectant Concentration (C) Before or at First | Contact Time (T) at C Measurement Point During | Provided Before or at First Customer | Temp. of | pH of | Minimum CT | Lowest Operating UV Dose, | Minimum UV Dose Required, | Lowest Residual Disinfectant Concentration at Remote Point in | Emergency or Abnormal Operating Conditions; Repair or |
| Month | In | Finished Water | Rate and | Peak Flow mg/l | Peak Flow, | During Peak Flow | Water, | Applicable | mg_min/l | mw- sec/cm2 | mw- sec/cm? | Distribution System mg/I | Maintenance Work that Involves Taking Water System |
| I | 24 | 1 316 000 | Tune, Spa | reak rion, mg.c | minutes | T cut TTOTT, | 00 | rippliedore | ing minets | Jour Critz | Jewenna | 22 | components out of Operation |
| 2 | 24 | 1,06,000 | | | | | | | - | - | | 24 | |
| 3 | 24 | 1,100,000 | | | | | | | | | | | |
| 4 | 24 | 2 104 000 | | | | | | | | | | 2.0 | |
| 5 | 24 | 1 014 000 | | | | | | | | | | 2.6 | |
| 6 | 24 | 1,179,000 | | | | | | | | | | 0.8 | |
| 7 | 24 | 1,203,000 | | | | | | | | | | 1.8 | |
| 8 | 24 | 1,203,000 | | | | | | | | | | 3.4 | |
| 9 | 24 | 1,259,000 | | | | | | | | | | 2.0 | |
| 10 | 24 | | | | | | | | | | | | |
| 11 | 24 | 2,596,000 | | | | | 1 - 1 | | | | | 2.8 | |
| 12 | 24 | 1,362,000 | | | | | | | | | | 1.5 | |
| 13 | 24 | 1,176,000 | | | | | | | | | | 2.2 | |
| 14 | 24 | 1,130,000 | | | | | | | | | | 2.0 | |
| 15 | 24 | 1,203,000 | | | | | | 1 | | | | 2.1 | |
| 16 | 24 | 1,251,000 | | | | | | | | | | 2.1 | |
| 17 | 24 | | | | | | | | | | | | |
| 18 | 24 | 2,488,000 | | | | | - | | | | | 2.0 | |
| 19 | 24 | 1,645,000 | | | | | | | | | | 2.0 | |
| 20 | 24 | 1,296,000 | | | | | | | | | | 2.1 | |
| 21 | 24 | 1,269,000 | | | | | | | | | | 2.4 | |
| 22 | 24 | 1,265,000 | | | | | | | | | | 2.0 | |
| 23 | 24 | 1,328,000 | | | | | | | | | | 2.1 | |
| 24 | 24 | | | | | | | | | | | | |
| 25 | 24 | 2,347,000 | | | | | | | | | | 2.2 | |
| 26 | 24 | 1,295,000 | | | | | | | | | | 2.6 | |
| 27 | 24 | 1,362,000 | | | | | | _ | | | | 2.0 | |
| 28 | 24 | 1,186,000 | | | | | _ | | | | | 2.1 | |
| 29 | 24 | 1,268,000 | | | | | | | | | | 2.0 | |
| 30 | 24 | 1,025,000 | | | | | | | - | | | 2.1 | |
| 31 Tatal | 24 | 26 876 000 | | | | | _ | | | _ | | | |
| Average | | 1 418 308 | | | | | | | | | | | |

Maximum 2,596,000

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6280049 | Plant Name | BELL S | STREET | WATER PLANT #1 | |
|--------|---|----------------------------------|-----------------------------------|----------------|-------------------|---|---------------|
| IV. St | ummary of Use of Polyr | ner Containing Acrylamide, I | Polymer Containing Er | ichlorohydrii | n, and Ir | on or Manganese Sequestrant for the Year:* | 2021 |
| Α. | | | | 2 | ✓ No | Yes, and the polymer dose and the acrylamide level in the polymer and | e as follows: |
| | Polymer Dose, ppm= | | | Acrylan | nide Leve | el, $\%^{\dagger} =$ | |
| В. | Is any polymer containing are as follows: | ng the monomer epichlorohydr | in used at the water treat | ment plant? | ✓ N | Io Yes, and the polymer dose and the epichlorohydrin level in the p | olymer |
| | Polymer Dose, ppm= | | | Epichlo | rohydrin | Level, $\%^{\dagger} =$ | |
| C. | Is any iron or manganes | se sequestrant used at the water | treatment plant? | No 🗸 | Yes, and I | the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (po | lyphosphate or sodium silicate | :): polyphosph | ate | | | |
| | Sequestrant Dose, mg/I | of phosphate as PO4 or mg/L | of silicate as SiO ₂ = | 0.4153 | 38 mg/L | | |
| | If sodium silicate is use | d, the amount of added plus na | turally occurring silicate | , in mg/L as S | iO ₂ = | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

* Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



| See page 4 for instruction | S. | | | | | |
|--------------------------------|---|---------------|-----------------------------|---------------------|----------------------|-----------|
| I. General Information | for the Month/Year of: July, 2021 | | | | | |
| A. Public Water System | (PWS) Information | | - | | | |
| PWS Name: CRY | STAL LAKE WATER PLANT #7 | | PWS Identification Num | ber: 62800 | 049 | |
| PWS Type: | e | | | | | |
| Number of Service Co | onnections at End of Month: 506 | Tota | Population Served at End | of Month: | 800 | |
| PWS Owner: CIT | Y OF AVON PARK | | | | | |
| Contact Person: Jona | Lead Plant Ope | erator | | | | |
| Contact Person's Mail | ing Address: 2504 U.S. 27 SOUTH | City | AVON PARK | State: FL | Zip Code: | 33825 |
| Contact Person's Tele | phone Number: 863-443-1806 | Con | act Person's Fax Number: | 863-452-1078 | | |
| Contact Person's E-Ma | ail Address: operator@avonpark.cc | | | | | |
| B. Water Treatment Plan | t Information | | | | | |
| Plant Name: CRY | 'STAL LAKE WATER PLANT #7 | | Plant Telephone Number | r: 863-443-1806 | | |
| Plant Address: | | City | AVON PARK | State: FL | Zip Code: | 33825 |
| Type of Water Treated | | | | | | |
| Permitted Maximum I | Day Operating Capacity of Plant, gallons per day: | 500,000 | | | | |
| Plant Category (per su | bsection 62-699.310(4), F.A.C.): 5 | Plan | Class (per subsection 62-69 | 99.310(4), F.A.C.): | C | |
| Licensed Operators | Name | License Class | License Number | Da | y(s)/Shift(s) Worked | Statute 1 |
| Lead/Chief Operator: | Jonathan Delgado | С | 20135 | | 6 days per week | |
| Other Operators: | | | | | | |
| and the state of the second | | | | | | |
| | | | | | | |
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| NUMBER AND AND AND | | | | | | |
| The second second | | | | | | |
| ALL PARTY AND | | | | | | |
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| COST & MARKED AND ADDRESS OF A | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555 900(3) Effective August 28, 2003 08/03/21 Jonathan Delgado Printed or Typed Name 20135

License Number

| PWS | dentificatio | on Number: | 6284111 | | | Plant Nam | ne: | Crystal La | ake Club | | | | |
|------------------------|--------------------------------|--|---|--|---|--|-----------------------------|----------------------------------|--|---|---|--|--|
| III. D | aily Data f | or the Month | /Year of: | July, 2021 | | | | | | | | | |
| Means Ult | of Achiev | ing Four-Log | Virus Inacti | ivation/Removal: Describe): | * Free | Chlorine | | Chlorine Dio | xide [| Ozone | Con | nbine Chlorine (C | horamines) |
| Type o | f Disinfect | ant Residual N | Maintained | in Distribution Sy | vstem: | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dio | xide |
| - Aller | in the second | L. L. S. F. C. S. | CT Calculations, or UV Dose, to Demonstrate Four-Log Virus Inactivation, if Applicable* | | | | | | | | I State State | | |
| States. | ALC: NO | No. | CT Calculations UV Dose | | | | | | | | | | |
| Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Disinfectant Contact Time (T) at C Measurement Point During Peak Flow, | Lowest CT Provided Before or at First Customer During | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | 15,000 | | | | | | | | | | 2.8 | |
| 2 | 24 | 0 | | | | | | | | | | 2.2 | |
| 3 | 24 | | | 5 | | | | | | | | | |
| 4 | 24 | 23,000 | | | | | | | | | | 2.4 | |
| 5 | 24 | 0 | | | | | | | | | | 1.6 | |
| 6 | 24 | 0 | | | | | | | | | | 1.9 | |
| 7 | 24 | 26,000 | | | | | | | | | | 2.0 | |
| 8 | 24 | 0 | | | | | | | | | | 2.2 | |
| 9 | 24 | 1 | | | | | | | | | i i i | - | |
| 10 | 24 | 21,000 | | | | | | | | | | 2.4 | |
| 11 | 24 | 0 | | | | | | | | 1 | | 2.6 | |
| 12 | 24 | 27,000 | | | | | | | | | | 1.6 | |
| 13 | 24 | 0 | | | | | | | | | | 2.0 | |
| 14 | 24 | 23,000 | | | | | | | | | | 1.8 | |
| 15 | 24 | 0 | [] | | | | _ | | | | | 2.0 | |
| 16 | 24 | 31,000 | | | | | | | | | | 2.0 | |
| 17 | 24 | | | | | | | | | | | | |
| 18 | 24 | 13,000 | | | | | | | 1 | | | 1.8 | |
| 19 | 24 | 18,000 | | | | | | | | | | 1.8 | |
| 20 | 24 | 18,000 | | | | | | | | | | 2.0 | |
| 21 | 24 | 0 | | | | | | | | | | 1.8 | |
| 22 | 24 | 0 | | | | | | | | | | 2.0 | |
| 23 | 24 | 1,000 | | | | | | | | | | 0.9 | |
| 24 | 24 | | | | | | | | | | | | |
| 25 | 24 | 0 | | | | | | | | | | 2.0 | |
| 26 | 24 | 33,000 | | | | | | | | | | 2.8 | |
| 27 | 24 | 0 | | | | | | | | | | 3.4 | |
| 28 | 24 | 27,000 | | | | | | | | | | 2.6 | |
| 29 | 24 | 0 | | | | | | | | | | 2.3 | |
| 30 | 24 | 24,000 | | | | + | | | | | | 3.1 | |
| 31 | 24 | | | | | | | | | | | | |
| Fotal | | 300.000 | | | | | | | | | 0 | | |

11,538.5 Average Maximum 33,000

* Refer to the instructions for this report to determine which plants must provide this information.

PWS Identification Number: 6284111 Plant Name: Crystal Lake Club IV. Summary of Use of Polymer Containing Acrylamide, Polymer Containing Epichlorohydrin, and Iron or Manganese Sequestrant for the Year:* 2021 ✓ No

A. Is any polymer containing the monomer acrylamide used at the water treatment plant?

Yes, and the polymer dose and the acrylamide level in the polymer are as follows:

1



| See | page 4 for instr | uctions. | | | | | | | | | |
|------|---------------------|-------------|--|---------------------|-------------|-------------------|---------|----------------------------|-------------------|-----------------------|----------|
| I. (| General Inform | ation for | the Month/Year o | July, 20 | 021 | | | | | | |
| A. | Public Water Sy | ystem (PV | VS) Information | | | | | | | | |
| | PWS Name: | CITY C | OF AVON PARK | | | | | PWS Identification Number | er: 6280 | 049 | |
| | PWS Type: | ✓ Comn | nunity 🗌 Non- | Transient Non-Commu | unity | Transient Non-Com | nmunit | / Consecutive | | | |
| | Number of Serv | vice Conn | ections at End of Me | onth: 7037 | | To | otal Po | pulation Served at End of | Month: | 18561 | |
| | PWS Owner: | CITY (| OF AVON PARK | | | | | | | | |
| | Contact Person: | Jonatha | n Delgado | | | Co | ontact | Person's Title: | Lead Plant Ope | erator | |
| | Contact Person' | s Mailing | Address: 250 | 4 U.S. 27 SOUTH | | Ci | ty: | AVON PARK | State: FL | Zip Code: | 33825 |
| 0 | Contact Person' | s Telepho | ne Number: 863 | -443-1806 | | Co | ontact | Person's Fax Number: | 863-452-1078 | | |
| 1 | Contact Person' | s E-Mail | Address: <u>ope</u> | erator@avonpark. | <u>CC</u> | | | | | | |
| Β. | Water Treatmen | nt Plant In | formation | | | | | | | | |
| | Plant Name: | GLENV | WOOD WATER PL | ANT #2 | | | | Plant Telephone Number: | 863-443-1806 | | |
| | Plant Address: | 100 S. 0 | GLENWOOD AVE | NUE | | Ci | ty: | AVON PARK | State: FL | Zip Code: | 33825 |
| | Type of Water | Freated by | / Plant: 🗹 Rav | w Ground Water | Purchase | ed Finished Water | | | | | |
| | Permitted Maxin | mum Day | Operating Capacity | of Plant, gallons p | er day: 1,7 | 700,000 | | | | | |
| | Plant Category | (per subse | ection 62-699.310(4) |), F.A.C.): 5 | | Pla | ant Cl | ass (per subsection 62-699 | .310(4), F.A.C.): | C | |
| | Licensed Ope | rators | and the second s | Name | UNITE STATE | License Class | | License Number | Da | ay(s)/Shift(s) Worked | - WAR IC |
| | Lead Operator: | | Jona | than Delgado | | С | | 20135 | | 6 days per week | |
| | Other Operators | 51 | | | | | | | | | |
| | 17 - 19/- TS | - 1 | | | | | | | | | |
| | - State - | | | | | | | | | | |
| | The second second | | | | | | | | | | |
| | | | | | | | - | | | | |
| | AL PARA BASS | The state | | | | | _ | | | | |
| | 1 - S S S S S S S S | 1999 - 199 | | | | | _ | | | | |
| | The second | | | | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date

Jonathan Delgado Printed or Typed Name 20135

License Number

DEP Form 62-555.900(3) Effective August 28, 2003

Page 1

08/03/21

| PWS | PWS Identification Number: 6280049 Plant Name: GLENWOOD WATER PLANT #2 | | | | | | | | | | | | |
|---|--|-----------------------------------|------------|---|---|---|-----------------------|--------------------|----------------------------|--|--|--|---|
| III. Daily Data for the Month/Year of: July, 2021 | | | | | | | | | | | | | |
| Means | Means of Achieving Four-Log Virus Inactivation/Removal: * 🗸 Free Chlorine 🗌 Chlorine Dioxide 🗌 Ozone 🗌 Combine Chlorine (Choramines) | | | | | | | | | | | | |
| Type o | f Disinfect | ant Residual N | Maintained | in Distribution S | ystem: | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dio | xide |
| The second second | and the second | Contraction of the | | CT Calculations | or UV Dose, to | Demonstrate I | our-Log | Virus Inactiv | ation, if Appl | licable* | 1233 | A STREET STREET | THE REAL PROPERTY OF THE PROPERTY OF |
| here | 1-7-2-2 | | | CT Calculations UV Dose | | | | | | Dose | 1.1.1 | the second s | |
| Day of the | Hours Plant in | Net Quantity of Finished Water | Peak Flow | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Dask Flow, mgf | Contact Time (T) at C Measurement Point During Peak Flow, | Provided Before or at First Customer During Paak Flour | Temp. of Water, | pH of Water, if | Minimum CT Required, | Lowest Operating UV Dose, mW- | Minimum UV Dose Required, mW- | Lowest Residual Disinfectant Concentration at Remote Point in Distribution | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System |
| Intonini | 24 | 617 000 | Rate, gpu | reak riow, mg/L | minutes | I Cas Flow, | oc | Applicable | ing-inn/L | SCC/CIII2 | secremz | 2 A | Components Out of Operation |
| 2 | 24 | 570,000 | | | | | | | | | | 1.4 | |
| 3 | 24 | 379,000 | | | | | | | | | | 1.0 | |
| 4 | 24 | 1.065.000 | | | | | | | | | | 17 | |
| 5 | 24 | 644 000 | | | | | | | | | | 2.4 | |
| 6 | 24 | 502,000 | | | | | | | | | | 16 | |
| 7 | 24 | 720 000 | | | | 1 | | | | | | 2.2 | |
| 8 | 24 | 657,000 | | | | | | | | | | 2.4 | |
| 9 | 24 | 750,000 | | | | | | | | | | 2.3 | |
| 10 | 24 | | | | | | | | | | | | |
| 11 | 24 | 1,477,000 | | | | | | | | | 1 | 2.2 | |
| 12 | 24 | 800,000 | | | | | | | | | | 1.5 | |
| 13 | 24 | 661,000 | | | | | 1 | | | | | 2.0 | |
| 14 | 24 | 595,000 | | | | | | | | | | 2.2 | |
| 15 | 24 | 654,000 | | | | | | | | | | 0.7 | |
| 16 | 24 | 688,000 | | | | | | | | | | 1.0 | |
| 17 | 24 | | | | | | | | | | | | |
| 18 | 24 | 1,391,000 | | | | | | | | | | 1.8 | |
| 19 | 24 | 982,000 | | | | | | | | | | 1.6 | |
| 20 | 24 | 819,000 | | | | | | | | | | 2.0 | |
| 21 | 24 | 743,000 | | | | | | | | | | 2.0 | |
| 22 | 24 | 746,000 | | | | | | | | | 1 | 2.6 | |
| 23 | 24 | 779,000 | | | | | | | | | | 2.4 | |
| 24 | 24 | | | | | | - | | | | | | |
| 25 | 24 | 1,350,000 | | | | | | | | | | 2.3 | |
| 26 | 24 | 901,000 | | | | | | _ | | | | 0.8 | |
| 27 | 24 | 702,000 | | | | | - | | | | | 1.9 | |
| 28 | 24 | 681,000 | | | | | - | | | | | 2.0 | |
| 29 | 24 | 654,000 | | | | | | | | | | 2.4 | |
| 30 | 24 | 680,000 | | | | | | | | | | 1.0 | |
| Total | 24 | 20 837 000 | | | | | | | | | | | |
| Varaga | | 801 422 | | | | | | | | | | | |

1,477,000

Maximum

* Refer to the instructions for this report to determine which plants must provide this information.

| PWSI | dentification Number: | 6280049 | Plant Name | e: (| GLENWOOD WATER PLANT #2 |
|-------|--|-----------------------------|--|-----------|---|
| V. Su | immary of Use of Poly | mer Containing Acrylam | ide, Polymer Containing E | pichlor | ohydrin, and Iron or Manganese Sequestrant for the Year:* 20 |
| Α. | Is any polymer contain | ing the monomer acrylami | de used at the water treatme | nt plant? | Yes, and the polymer dose and the acrylamide level in the polymer are as follows: |
| | Polymer Dose, ppm= | | | I | Acrylamide Level, % [†] = |
| B. | ant? In No See and the polymer dose and the epichlorohydrin level in the polymer | | | | |
| | Polymer Dose, ppm= | | | F | Epichlorohydrin Level, % [†] = |
| C. | Is any iron or mangane | ese sequestrant used at the | water treatment plant? | ✓ No | Yes, and the type of sequestrant, sequestrant dose, etc., are as follows: |
| | Type of Sequestrant (p | olyphosphate or sodium si | icate): | | |
| | Sequestrant Dose, mg/ | L of phosphate as PO4 or n | ng/L of silicate as SiO ₂ = | | 1.858 mg/L |
| | If sodium silicate is us | ed, the amount of added pl | us naturally occurring silicat | e, in mg | g/L as SiO ₂ = |
| | | | | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

† Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



See page 4 for instructions.

I. General Information for the Month/Year of: August, 2021

A. Public Water System (PWS) Information

| PWS Name: CIT | Y OF AVON PARK | | PWS Identification Number | er: 628004 | 49 | |
|-------------------------|---|------------------------|-------------------------------|----------------------|----------------------|-------|
| PWS Type: 🗹 C | ommunity Non-Transient Non-Community | Transient Non-Commun | ity Consecutive | | | |
| Number of Service Co | onnections at End of Month: 7037 | Total I | Population Served at End of | Month: | 18561 | |
| PWS Owner: CIT | Y OF AVON PARK | | | | | |
| Contact Person: Jona | ithan Delgado | Contac | ct Person's Title: | Lead Plant Operation | ator | |
| Contact Person's Mail | ing Address: 2504 U.S. 27 SOUTH | City: | AVON PARK | State: FL | Zip Code | 33825 |
| Contact Person's Tele | phone Number: 863-443-1806 | Contac | t Person's Fax Number: | 863-452-1078 | | |
| Contact Person's E-M | ail Address: <u>operator@avonpark.cc</u> | | | | | |
| 3. Water Treatment Plan | t Information | | | | | |
| Plant Name: BEI | L STREET WATER PLANT #1 | | Plant Telephone Number: | 863-443-1806 | | |
| Plant Address: 135 |) W. BELL STREET | City: | AVON PARK | State: FL | Zip Code | 33825 |
| Type of Water Treate | i by Plant: 🔄 Raw Ground Water 🗌 Pu | rchased Finished Water | | | | _ |
| Permitted Maximum I | Day Operating Capacity of Plant, gallons per day: | 5,300,000 | | | | |
| Plant Category (per su | bsection 62-699.310(4), F.A.C.): 4 | Plant C | Class (per subsection 62-699. | .310(4), F.A.C.): | С | |
| Licensed Operators | Name | License Class | License Number | Day | y(s)/Shift(s) Worked | 12.00 |
| Lead/Chief Operator: | Jonathan Delgado | C | 20135 | | 6 days per week | _ |
| Other Operators: | | | | | | |
| The second second | | | | 1 | | - |
| The Carl Mar 1991 | | | | | | |
| and the second second | | | | | | |
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| | | | 1 | | | |
| and the second second | | | | | | |
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| | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555.900(3)

Jonathan Delgado Printed or Typed Name 20135 License Number

09/03/21

| PWS I | PWS Identification Number: 6280049 BELL STREET WATER PLANT #1 | | | | | | | | | | | | |
|---|--|--|------------------------|--|--|---|-----------------------------|----------------------------------|--|---|---|--|--|
| III. Daily Data for the Month/Year of: August, 2021 | | | | | | | | | | | | | |
| Means | Means of Achieving Four-Log Virus Inactivation/Removal: * 🗹 Free Chlorine 🗌 Chlorine Dioxide 🗌 Ozone 🗌 Combine Chlorine (Choramines) | | | | | | | | | | | | |
| Type o | f Disinfect | tant Residual | Maintained | in Distribution S | vstem: | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dic | xide |
| | | | | CT Calculations. | or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiv | ation, if App | licable* | | A STREET | |
| 221 | Line in | 1 Standard | | | CT Calcu | lations | | | and the second | UV | Dose | | |
| Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Contact Time (T) at C Measurement Point During Peak Flow, minutes | Provided Before or at First Customer During Peak Flow, | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | 2,500,000 | | C. All Control of Cont | | | | | | | | 2.0 | |
| 2 | 24 | 1,230,000 | | | | | 1 | | | | | 1.8 | |
| 3 | 24 | 1,374,000 | | | | | 1 | | | | | 2.3 | |
| 4 | 24 | 1,155,000 | | | | | | | | | | 1.6 | |
| 5 | 24 | 1,245,000 | | | | | | | | 1 | | 2.0 | |
| 6 | 24 | 1,566,000 | | | | | | | | | | 1.9 | |
| 7 | 24 | | | | | | | | | | | | |
| 8 | 24 | 2,529,000 | | а | | | 4 | | | |) | 2.0 | |
| 9 | 24 | 1,250,000 | | | | | | | | | | 2.0 | |
| 10 | 24 | 1,097,000 | | | | | | | | | | 2.1 | |
| 11 | 24 | 1,176,000 | | | | | e | | | | 2 | 2.4 | |
| 12 | 24 | 1,440,000 | | | | | | | | | | 2.0 | |
| 13 | 24 | 1,231,000 | | - | | | | | | | | 2.3 | |
| 14 | 24 | | | | | | | | | | | 1 | |
| 15 | 24 | 2,238,000 | | | | | | | | | | 2.2 | |
| 16 | 24 | 1,431,000 | | | | | | | | | _ | 2.0 | |
| 17 | 24 | 1,099,000 | | | | | | | | | | 1.7 | |
| 18 | 24 | 1,284,000 | | | | | | | | | | 2.3 | |
| 19 | 24 | 1,226,000 | | | | | | | | | | 2.2 | |
| 20 | 24 | 1,759,000 | | | | | | | | | | 2.1 | |
| 21 | 24 | 1 2 1 2 2 2 2 | | | | | | | | | | 2.2 | |
| 22 | 24 | 1,240,000 | | | | | - | | | | | 2.2 | |
| 23 | 24 | 2,383,000 | | | | | | | | | | 1.0 | |
| 24 | 24 | 1,172,000 | | | | | | | | | 2 | 2.1 | |
| 25 | 24 | 1,099,000 | | | | | | | | | - | 1.8 | |
| 20 | 24 | 466.000 | | | | | 6 | | | | | 1.0 | |
| 28 | 24 | 400,000 | | | | | | | | | | 1.0 | |
| 29 | 24 | 1 979 000 | | | | | | | | | | 2.1 | |
| 30 | 24 | 1,197,000 | | | | | | | | | | 2.1 | |
| 31 | 24 | 1,213,000 | | | | | | - | | | | 2.8 | |
| Total | | 38,803,000 | | | | | | 2-111 | | | | | |
| Average | | 1,437,148 | | | | | | | | | | | |
| Maximur | n | 2,529,000 | | | | | | | | | | | |

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6280049 | Plant Name: | BELL STREET | WATER PLANT #1 | |
|-------|---|--|---------------------------|---------------------|---|------------|
| IV. S | ummary of Use of Polyn | ner Containing Acrylamide, Polymer | Containing Epichle | orohydrin, and I | on or Manganese Sequestrant for the Year:* | 2021 |
| Α. | | | | ✓ No | Yes, and the polymer dose and the acrylamide level in the polymer are a | s follows: |
| | Polymer Dose, ppm= | | | Acrylamide Lev | el, $\%^{\dagger} =$ | |
| Β. | Is any polymer contain are as follows: | ing the monomer epichlorohydrin used | at the water treatmen | t plant? | Ves, and the polymer dose and the epichlorohydrin level in the poly | mer |
| | Polymer Dose, ppm= | | | Epichlorohydrin | Level, $\%^{\dagger} =$ | |
| C. | Is any iron or manganes | se sequestrant used at the water treatme | nt plant? 🗌 N | o 🗸 Yes, and | the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (po | olyphosphate or sodium silicate): | polyphosphate | | | |
| | Sequestrant Dose, mg/I | of phosphate as PO4 or mg/L of silicat | te as $SiO_2 =$ | 0.26667 mg/L | | |
| | If sodium silicate is use | ed, the amount of added plus naturally o | ccurring silicate, in r | ng/L as $SiO_2 =$ | | |
| | N. | | | | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

* Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



See page 4 for instructions.

I. General Information for the Month/Year of: August, 2021

| A. | Public | Water | Sy | vstem | (PWS) | Information |
|----|--------|-------|----|-------|-------|-------------|
|----|--------|-------|----|-------|-------|-------------|

| PWS Name: C | ITY OF AVON PARK | | PWS Identification Numb | ber: 6280049 | | | | | | |
|--------------------------|---|---------------------|------------------------------|------------------------|-------|--|--|--|--|--|
| PWS Type: | Community Non-Transient Non-Community | Transient Non-Commu | nity Consecutive | | | | | | | |
| Number of Service | Connections at End of Month: 7037 | Total | Population Served at End of | f Month: 18561 | | | | | | |
| PWS Owner: C | ITY OF AVON PARK | | | | | | | | | |
| Contact Person: Jo | onathan Delgado | Conta | ct Person's Title: | Lead Plant Operator | | | | | | |
| Contact Person's M | ailing Address: 2504 U.S. 27 SOUTH | City: | AVON PARK | State: FL Zip Code: | 33825 | | | | | |
| Contact Person's To | elephone Number: 863-443-1806 | Conta | ct Person's Fax Number: | 863-452-1078 | | | | | | |
| Contact Person's E- | Mail Address: operator@avonpark.cc | | | | | | | | | |
| 3. Water Treatment P | lant Information | | | | | | | | | |
| Plant Name: G | LENWOOD WATER PLANT #2 | | Plant Telephone Number: | 863-443-1806 | | | | | | |
| Plant Address: 1 | 00 S. GLENWOOD AVENUE | City: | AVON PARK | State: FL Zip Code: | 33825 | | | | | |
| Type of Water Trea | ited by Plant: 🔄 Raw Ground Water 🗌 Purcha | ased Finished Water | | | | | | | | |
| Permitted Maximum | n Day Operating Capacity of Plant, gallons per day: | 1,700,000 | | | | | | | | |
| Plant Category (per | subsection 62-699.310(4), F.A.C.): 5 | Plant | Class (per subsection 62-69) | 9.310(4), F.A.C.): C | | | | | | |
| Licensed Operato | rs Name | License Class | License Number | Day(s)/Shift(s) Worked | | | | | | |
| Lead Operator: | Jonathan Delgado | С | 20135 | 6 days per week | | | | | | |
| Other Operators: | | | | | | | | | | |
| and the loss of the loss | | | | | | | | | | |
| N. S. Martin | | | | | | | | | | |
| and the states | | | | | _ | | | | | |
| Stand Stand Stand Stand | | | | | | | | | | |
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| | ACC. | | | | | | | | | |
| | | | | | | | | | | |
| SAL BOULE IT | | | | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555.900(3) Effective August 28, 2003 09/03/21 Jonathan Delgado Printed or Typed Name 20135 License Number

| PWS I | PWS Identification Number: 6280049 Plant Name: GLENWOOD WATER PLANT #2 | | | | | | | | | | | | |
|---|--|-------------------------------|-------------------|-------------------|----------------|---------------|---------|---------------|----------------|-------------------|----------|------------------|--|
| III. Daily Data for the Month/Year of: August, 2021 | | | | | | | | | | | | | |
| Means | Means of Achieving Four-Log Virus Inactivation/Removal: * 🗹 Free Chlorine 🗌 Chlorine Dioxide 🗌 Ozone 🗌 Combine Chlorine (Choramines) | | | | | | | | | | | | |
| Type o | f Disinfect | ant Residual N | Maintained | in Distribution S | vstem: | Free Chlorin | e | Combine | e Chlorine ((| Choramines |) | Chlorine Dio | xide |
| | the second | The seat of the second second | The second second | CT Calculations. | or UV Dose, to | Demonstrate F | our-Log | Virus Inactiv | ation, if Appl | icable* | 1. E.K. | 12 Pagers | a second and a second and a second and |
| and the second | -19 | Sand and | and the | | CT Calcu | lations | | | | UV | Dose | 1 | |
| The T | 1 | 1 29 - | the state of | Lowest Residual | Contact Time | Provided | (Carl | 100.33 | Carlos and | | | Lowest Residual | |
| Clim | COL Party | a track | | Disinfectant | (T) at C | Before or | | 127 1272 | | Lowest | Minimum | Disinfectant | |
| Dan of | Laura Diant | Not Ouentity of | 5-57-5 | Concentration (C) | Reasurement | at First | Temp. | all of | Minimum | Operating UV Doce | Dov Dose | Concentration at | Emananta Alusand Ocartine Cauddiance Parair as |
| the | in in | Finished Water | Peak Flow | Customer During | Peak Flow. | During | Water. | Water, if | Required. | mW- | mW- | Distribution | Maintenance Work that Involves Taking Water System |
| Month | Operation | Produced, gal | Rate, gpd | Peak Flow, mg/L | minutes | Peak Flow, | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation |
| 1 | 24 | 1,402,000 | | | | | | 1.4 | | | | 2.3 | |
| 2 | 24 | 780,000 | | | | | | | | | | 2.6 | |
| 3 | 24 | 815,000 | | | | | | | | | | 2.0 | |
| 4 | 24 | 582,000 | | | | | | | | | | 2.4 | |
| 5 | 24 | 656,000 | | | | | | | | | | 2.2 | |
| 6 | 24 | 897,000 | | | | | | | | | | 2.1 | |
| 7 | 24 | | | | | | | | | | | | |
| 8 | 24 | 1,226,000 | | I III | | | | | | | | 2.3 | |
| 9 | 24 | 929,000 | | | | | | | | | | 1.6 | |
| 10 | 24 | 650,000 | | | | | | | | | | 0.8 | |
| 11 | 24 | 692,000 | | | | | | | | | | 2.3 | |
| 12 | 24 | 831,000 | | | | | | | | | | 2.2 | |
| 13 | 24 | 755,000 | | | | | | | | | | 2.0 | |
| 14 | 24 | | | | | | | | | | | | |
| 15 | 24 | 1,374,000 | | | | | | | | | | 2.3 | |
| 16 | 24 | 828,000 | | | | | | | | | | 1.6 | |
| 17 | 24 | 705,000 | | | | | | | | | | 2.2 | |
| 18 | 24 | 667,000 | | | | | | | | | | 1.9 | |
| 19 | 24 | 862,000 | | | | | | | | | | 2.0 | |
| 20 | 24 | 600,000 | | | | | | | | | | 2.0 | |
| 21 | 24 | | | | | | | | | | | | |
| 22 | 24 | 1,611,000 | | | | | | | | | | 2.2 | |
| 23 | 24 | 1,397,000 | | | | | 1 | | L | | | 2.1 | |
| 24 | 24 | 712,000 | | | | | | | | | | 1.9 | |
| 25 | 24 | 917,000 | | | | | | | | | | 1.4 | |
| 26 | 24 | 1,247,000 | | | | | | | | | | 1.6 | |
| 27 | 24 | 1,453,000 | | | | | | | | | | 1.5 | |
| 28 | 24 | | | | | | | | | | | | |
| 29 | 24 | 2,080,000 | | | | | | | | | | 2.2 | |
| 30 | 24 | 1,000,000 | | | | | | | | | 1.1.1.1 | 2.7 | |
| 31 | 24 | 944,000 | | | | | | | | | | 0.2 | |
| Total | | 26,612,000 | | | | | | | | | | | |
| Average | | 985,630 | | | | | | | | | | | |

2,080,000

Maximum

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6280049 PI | ant Name: | GLENWOOD WATER PLANT #2 | |
|-------|---|---|---------------|--|------|
| IV. S | ummary of Use of Poly | mer Containing Acrylamide, Polymer Cont | aining Epichl | lorohydrin, and Iron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | Is any polymer containing the monomer <u>acrylamide</u> used at the water treatment plant? Ves, and the polymer dose and the acrylamide level in the polymer are as follows: | | | | |
| | Polymer Dose, ppm= | | | Acrylamide Level, $\%^{\dagger} =$ | |
| В. | Is any polymer containing the monomer epichlorohydrin used at the water treatment plant? Ves, and the polymer dose and the epichlorohydrin level in the polymer are as follows: | | | | |
| | Polymer Dose, ppm= | | | Epichlorohydrin Level, $\%^{\dagger} =$ | |
| C. | Is any iron or mangane | se sequestrant used at the water treatment plan | nt? 🗸 M | No Yes, and the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (p | olyphosphate or sodium silicate): | | | |
| | Sequestrant Dose, mg/ | L of phosphate as PO4 or mg/L of silicate as S | $iO_2 =$ | 1.79231 mg/L | |
| | If sodium silicate is us | f sodium silicate is used, the amount of added plus naturally occurring silicate, in mg/L as SiO ₂ = | | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

† Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.


| See | page 4 for instructions. | | | | | | | | | | | | |
|------|--|--|-----------------------|--|---------------------|----------------------|-------|--|--|--|--|--|--|
| 1. (| General Information for | or the Month/Year of: August, 2021 | | | | | | | | | | | |
| Α. | Public Water System (F | WS) Information | | | | | | | | | | | |
| | PWS Name: CRYS | STAL LAKE WATER PLANT #7 | | PWS Identification Number: 6280049 | | | | | | | | | |
| | PWS Type: 🗸 Con | nmunity Non-Transient Non-Community | Transient Non-Co | Transient Non-Community Consecutive | | | | | | | | | |
| | Number of Service Con | nections at End of Month: 506 | 1 | Total Population Served at End of Month: 800 | | | | | | | | | |
| | PWS Owner: CITY | OF AVON PARK | | | | | | | | | | | |
| | Contact Person: Jonath | han Delgado | | Contact Person's Title: Lead Plant Operator | | | | | | | | | |
| | Contact Person's Mailin | ng Address: 2504 U.S. 27 SOUTH | (| City: AVON PARK | State: FL | Zip Code: | 33825 | | | | | | |
| | Contact Person's Teleph | none Number: 863-443-1806 | 0 | Contact Person's Fax Number: | 863-452-1078 | | | | | | | | |
| | Contact Person's E-Mai | Address: operator@avonpark.cc | | | | | | | | | | | |
| в. Т | Water Treatment Plant | Information | _ | | | | | | | | | | |
| | Plant Name: CRYS | STAL LAKE WATER PLANT #7 | Plant Telephone Numbe | er: 863-443-1806 | | | | | | | | | |
| Ī | Plant Address: | | 0 | City: AVON PARK | State: FL | Zip Code: | 33825 | | | | | | |
| 1 | Type of Water Treated | by Plant: 🛛 Raw Ground Water 🗌 Purc | hased Finished Water | | | | | | | | | | |
| - D | Permitted Maximum Da | ay Operating Capacity of Plant, gallons per day: | 500,000 | 0 | | | | | | | | | |
| 1 | Plant Category (per sub | section 62-699.310(4), F.A.C.): 5 | F | Plant Class (per subsection 62-6 | 99.310(4), F.A.C.): | F.A.C.): C | | | | | | | |
| | Licensed Operators | Name | License Class | s License Number | Day | y(s)/Shift(s) Worked | 12.3 | | | | | | |
| j. | Lead/Chief Operator: | Jonathan Delgado | C | 20135 | | 6 days per week | | | | | | | |
| | Other Operators: | | | | | | | | | | | | |
| | 1955 Participant | | | | | | | | | | | | |
| | HELESS DUNNED THE | | | | | | | | | | | | |
| 1 | A STATE OF THE STA | | | | | | | | | | | | |
| | Minister of the second | | | | | | | | | | | | |
| | States and the second | | | | | | - | | | | | | |
| | A STREET STREET, STR | | | | | | | | | | | | |
| | AL THROUGH A COLORED | | | | | | | | | | | | |
| 1 | I TREAT FAIL | | | | | | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DP Form 62-555.900(3) Effective August 28, 2003 09/03/21 Jonathan Delgado Printed or Typed Name 20135 License Number

1

| PWS Iden | ntificatio | n Number: | 6284111 | | | Plant Nam | ne: | Crystal La | ke Club | | | | |
|------------|------------------|-----------------------------------|--------------|---|---|--|-----------------------|--------------------|----------------------------|--|--|--|---|
| III. Daily | y Data fo | or the Month | /Year of: | August, 2021 | | | | | | | | | |
| Means of | f Achievi | ng Four-Log | Virus Inacti | vation/Removal: | * Free | Chlorine | | Chlorine Dio | xide 🗌 | Ozone | Con | bine Chlorine (C | horamines) |
| Ultravi | violet Radia | tion | Other (D | escribe): | | | | | | | | | |
| Type of I | Disinfecta | ant Residual N | Aaintained i | in Distribution Sy | stem: | Free Chlorin | e | Combine | e Chlorine ((| choramines) |) | Chlorine Dio | xide |
| | States - | The second second | Si TRA | CT Calculations, | or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiv | ation, if Appl | icable* | a la starter | A TE H | ALL |
| Alar I | | | | | CT Calcu | lations | | | | UV | Dose | | A STATE OF A STATE AND A STATE AND |
| Day of He | ours Plant in | Net Quantity of Finished Water | Peak Flow | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During | Contact Time (T) at C Measurement Point During | Lowest CI Provided Before or at First Customer | Temp. of Water, | pH of Water, if | Minimum CT Required, | Lowest Operating UV Dose, mW- | Minimum UV Dose Required, mW- | Lowest Residual Disinfectant Concentration at Remote Point in Distribution | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System |
| Month C | Operation | Produced, gal | Rate, gpd | Peak Flow, mg/L | Peak Flow, | During | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation |
| 1 | 24 | 0 | | | | | | | | | | 2.9 | |
| 2 | 24 | 0 | | | | | | | | | | 3.0 | |
| 3 | 24 | 28,000 | | | | | | | | | | 3.4 | |
| 4 | 24 | 0 | | | | | | | | | | 3.0 | |
| 5 | 24 | 23,000 | | | | | | | | | | 3.1 | |
| 6 | 24 | 28,000 | | | | | | | | | | 2.9 | |
| 7 | 24 | | | | | | | | | | | | |
| 8 | 24 | 0 | | | | | j | | | | | 2.9 | |
| 9 | 24 | 38,000 | | | | | | | | | | 2.6 | |
| 10 | 24 | 19,000 | | | | | | | | | | 1.0 | |
| 11 | 24 | 0 | | | | | | | | | | 2.0 | |
| 12 | 24 | 28,000 | | | | | | | | | | 1.6 | |
| 13 | 24 | 28,000 | | | | | | | | | | 2.8 | |
| 14 | 24 | | | | | | | | | | | | |
| 15 | 24 | 26,000 | | | | _ | | | | | | 2.9 | |
| 16 | 24 | 0 | | | | | | | | | | 2.6 | 1 |
| 17 | 24 | 19,000 | | | | | | | | | | 2.8 | |
| 18 | 24 | 21,000 | | | | | | | - | | | 2.6 | |
| 19 | 24 | 22,000 | | | 2 | | | | | | | 2.6 | |
| 20 | 24 | 26,000 | | | | | | | | | - | 2.5 | |
| 21 | 24 | | | | | | - | - | | | | | |
| 22 | 24 | 38,000 | | | | | | | | | | 2.4 | |
| 23 | 24 | 16,000 | | | | | _ | | | | | 2.4 | |
| 24 | 24 | 15,000 | | | | | | | | | | 2.3 | |
| 25 | 24 | 26,000 | | | | | | - | | | | 2.6 | |
| 26 | 24 | 0 | | | | | | | | | | 2.4 | |
| 27 | 24 | 34,000 | | | | | | | | | | 2.2 | |
| 28 | 24 | | | | | - | | | | | | | |
| 29 | 24 | 27,000 | | | | | | | | | | 2.2 | |
| 30 | 24 | 46,000 | | | | | | | | | | 2.1 | |
| 31 | 24 | 15,000 | | | | | | | | | | 1.9 | |
| Lotal | | 523,000 | | | | | | | | | | | |

T

Maximum 46,000

* Refer to the instructions for this report to determine which plants must provide this information.

 PWS Identification Number:
 6284111
 Plant Name:
 Crystal Lake Club

 IV. Summary of Use of Polymer Containing Acrylamide, Polymer Containing Epichlorohydrin, and Iron or Manganese Sequestrant for the Year:*
 2021

 A. Is any polymer containing the monomer acrylamide used at the water treatment plant?
 Image: Monormal Control Manganese Sequestrant for the Acrylamide level in the polymer are as follows:
 2021



See page 4 for instructions.

| I. General Information for | or the Month/Year of: Septembe | er, 2021 | | | | | | | | | | |
|---|---|--------------------------|---|-----------------|----------------------|-----------|--|--|--|--|--|--|
| A. Public Water System (I | PWS) Information | | | | | | | | | | | |
| PWS Name: CITY | OF AVON PARK | | PWS Identification Num | ber: 62800 | 149 | | | | | | | |
| PWS Type: 🗹 Cor | nmunity Non-Transient Non-Communit | ty Transient Non-Cor | nmunity Consecutiv | e | | | | | | | | |
| Number of Service Cor | nections at End of Month: 7037 | Т | Total Population Served at End of Month: 18561 | | | | | | | | | |
| PWS Owner: CITY | OF AVON PARK | | | | | | | | | | | |
| Contact Person: Jonat | han Delgado | С | ontact Person's Title: | Lead Plant Ope | rator | | | | | | | |
| Contact Person's Mailin | ig Address: 2504 U.S. 27 SOUTH | C | ty: AVON PARK | State: FL | Zip Code | 33825 | | | | | | |
| Contact Person's Telepl | hone Number: 863-443-1806 | C | ontact Person's Fax Number: | 863-452-1078 | | | | | | | | |
| Contact Person's E-Mai | Address: operator@avonpark.cc | 2 | | | | | | | | | | |
| B. Water Treatment Plant | Information | | | | | | | | | | | |
| Plant Name: BELL | STREET WATER PLANT #1 | | Plant Telephone Number | r: 863-443-1806 | | | | | | | | |
| Plant Address: 1350 | W. BELL STREET | C | ty: AVON PARK | State: FL | Zip Code | 33825 | | | | | | |
| Type of Water Treated | by Plant: 🔄 Raw Ground Water | Purchased Finished Water | | | | | | | | | | |
| Permitted Maximum Da | ay Operating Capacity of Plant, gallons per | day: 5,300,000 | | | | | | | | | | |
| Plant Category (per sub | section 62-699.310(4), F.A.C.): 4 | PI | Plant Class (per subsection 62-699.310(4), F.A.C.): C | | | | | | | | | |
| Licensed Operators | Name | License Class | License Number | Da | y(s)/Shift(s) Worked | Transard. | | | | | | |
| Lead/Chief Operator: | Jonathan Delgado | С | 20135 | | 6 days per week | | | | | | | |
| Other Operators: | | | | | | | | | | | | |
| LABOR OF STATIST | | | | 1910 | | | | | | | | |
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| TO REAL PROPERTY AND | | | | | | | | | | | | |
| THE REAL PROPERTY AND | | | | | | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date orm 62-555.900(3)

Effective August 28, 2003

Jonathan Delgado Printed or Typed Name 20135 License Number

10/05/21

| PWSI | dentificatio | on Number: | 6280049 | | | 1 | | BELL ST | REET WA | TER PLA | NT #1 | | |
|--------------|---------------------------|-----------------|-------------|--|---|---|-------------|---------------|----------------|---------------------------------|---------------------------------|--|---|
| III. D | aily Data f | or the Month | /Year of: | September, 202 | 1 | | | | | | | | |
| Means Ult | of Achiev aviolet Radi | ing Four-Log | Virus Inact | ivation/Removal: Describe): | * 🗹 Free | Chlorine | | Chlorine Dio | xide | Ozone | Com | bine Chlorine (C | horamines) |
| Type o | f Disinfect | ant Residual I | Maintained | in Distribution S | vstem: | Free Chlorin | е | Combine | e Chlorine (| Choramines |) | Chlorine Dic | xide |
| 100 | 12.000 | | | CT Calculations | or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiv | ation, if Appl | licable* | A LANSON | | KING STREET |
| 1000 | 1 1.101.8 | and the | | | CT Calcu | lations | | | | UV | Dose | The stars | |
| Day of | Hours Plant | Net Quantity of | Ded Flou | Lowest Residual Disinfectant Concentration (C) Before or at First | Contact Time (T) at C Measurement Point During | Provided Before or at First Customer | Temp. of | pH of | Minimum CT | Lowest Operating UV Dose, | Minimum UV Dose Required, | Lowest Residual Disinfectant Concentration at Remote Point in | Emergency or Abnormal Operating Conditions; Repair or |
| Month | In Operation | Produced gal | Rate and | Peak Flow mg/L | minutes | Peak Flow | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System mg/I | Components Out of Operation |
| Internation | 24 | 1.034.000 | nuro, Spa | Teak Tion, ing D | minutes | 1 cur 1 10 w, | U.C. | rippilouoie | ing inin L | Secteritz | Secretitis | 0.9 | Components out of Operation |
| 7 | 24 | 830 000 | | | | | | | | | | 17 | |
| 3 | 24 | 1 241 000 | | | | | | | | | | 28 | |
| 4 | 24 | 1,2 11,000 | _ | | | | | | 1 | | | | |
| 5 | 24 | 2 225 000 | | | | | | | | | | 22 | |
| 6 | 24 | 1,148,000 | | | | | | | | | | 2.1 | |
| 7 | 24 | 1.083.000 | | | | | | | | | | 1.4 | |
| 8 | 24 | 1,624,000 | | | | | | | | | | 2.0 | |
| 9 | 24 | 857,000 | | | | | | | | | | 2.1 | |
| 10 | 24 | 1,206,000 | | | | | | | | | | 1.8 | |
| 11 | 24 | | | | | | | | | | | | |
| 12 | 24 | 1,891,000 | | | | | | | | | | 2.0 | |
| 13 | 24 | 1,356,000 | | | | | | | | - | | 2.1 | |
| 14 | 24 | 732,000 | | | | | | | | | | 1.8 | |
| 15 | 24 | 1,194,000 | | | | | | | | | | 2.1 | |
| 16 | 24 | 879,000 | | | | | | | | | | 2.2 | |
| 17 | 24 | 916,000 | | | | | | | | | | 2.0 | |
| 18 | 24 | | | | | | | | | | | | |
| 19 | 24 | 1,945,000 | | | | | | | | | | 0.2 | |
| 20 | 24 | 984,000 | | | | | | | | | | 1.0 | |
| 21 | 24 | 1,210,000 | | | | | | | | | | 2.1 | |
| 22 | 24 | 989,000 | | | | | | | | | | 1.0 | |
| 23 | 24 | 1,853,000 | | | | | | | | | | 3.1 | |
| 24 | 24 | 787,000 | | | | | t | | | | | 1.2 | |
| 25 | 24 | | | | | | | | | | | | |
| 26 | 24 | 1,865,000 | | | | | | | | | | 1.2 | |
| 27 | 24 | 1,025,000 | | | | | | | | | | 1.4 | |
| 28 | 24 | 1,128,000 | | | | | | | | | | 1.8 | |
| 29 | 24 | 1,021,000 | | | | | - | | | | | 2.0 | |
| 30 | 24 | 1,447,000 | | | | | | | | | | 2.1 | |
| Total | Canada Canada | 32 470 000 | | | | | | | | | | | |
| Average | Contraction of the | 1 248 846 | | | | | | | | | | | |

2,225,000

Maximum

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6280049 | Plant Name: | BELL STREET | WATER PLANT #1 | |
|-------|--|---|---------------------------|-------------------|---|-----------------|
| IV. S | ummary of Use of Poly | mer Containing Acrylamide, Polymer | Containing Epichle | orohydrin, and I | ron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | | | | I No | Yes, and the polymer dose and the acrylamide level in the polymer | are as follows: |
| | Polymer Dose, ppm= | | | Acrylamide Lev | /el, % [†] = | |
| Β. | Is any polymer contain are as follows: | ing the monomer <u>epichlorohydrin</u> used a | it the water treatmen | t plant? | No Yes, and the polymer dose and the epichlorohydrin level in the | : polymer |
| | Polymer Dose, ppm= | | | Epichlorohydrin | h Level, $\%^{\dagger} =$ | |
| C. | Is any iron or mangane | se sequestrant used at the water treatmen | nt plant? 🗌 No | o 🛛 🗸 Yes, and | the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (p | olyphosphate or sodium silicate): | polyphosphate | | | |
| | Sequestrant Dose, mg/l | L of phosphate as PO4 or mg/L of silicate | e as $SiO_2 =$ | 0.99259 mg/L | | |
| | If sodium silicate is use | ed, the amount of added plus naturally of | ccurring silicate, in n | ng/L as $SiO_2 =$ | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

+ Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



See page 4 for instructions.

| I. Genera | I Informatio | a for the Month/Year of: Septemb | er, 2021 | | | | | | | | | |
|----------------|----------------------------|--|------------------------|--|---------------------|---------------------|----------------------|--------|--|--|--|--|
| A. Public | Water System | (PWS) Information | | | | | | | | | | |
| PWS | Name: CI | TY OF AVON PARK | | PWS Identification Number: 6280049 | | | | | | | | |
| PWS 7 | Type: | Community Non-Transient Non-Communi | ity Transient Non | Insient Non-Community Consecutive | | | | | | | | |
| Numbe | er of Service (| Connections at End of Month: 7037 | | Total Population Served at End of Month: 18561 | | | | | | | | |
| PWS (| Owner: CI | TY OF AVON PARK | | | | | | | | | | |
| Contac | t Person: Jon | hathan Delgado | | Contact Perso | rator | | | | | | | |
| Contac | t Person's Ma | iling Address: 2504 U.S. 27 SOUTH | | City: AVO | N PARK | State: FL | Zip Code: | 33825 | | | | |
| Contac | t Person's Tel | ephone Number: 863-443-1806 | | Contact Person's Fax Number: 863-452-1078 | | | | | | | | |
| Contac | t Person's E-N | Mail Address: operator@avonpark.co | <u>c</u> | | | | | | | | | |
| B. Water | Treatment Pla | nt Information | | | | | | | | | | |
| Plant N | lame: GI | ENWOOD WATER PLANT #2 | | Plant | Telephone Number | r: 863-443-1806 | | | | | | |
| Plant A | ddress: 10 |) S. GLENWOOD AVENUE | | City: AVO | N PARK | State: FL | Zip Code: | 33825 | | | | |
| Type o | f Water Treat | ed by Plant: 🔄 Raw Ground Water | Purchased Finished Wat | er | | | | | | | | |
| Permit | ted Maximum | Day Operating Capacity of Plant, gallons per | day: 1,700,000 | | | | | | | | | |
| Plant C | Category (per : | subsection 62-699.310(4), F.A.C.): 5 | | Plant Class (p | er subsection 62-69 | 99.310(4), F.A.C.): | | | | | | |
| Licer | ised Operator | s Name | License Cl | ass | License Number | Da | y(s)/Shift(s) Worked | 15 100 | | | | |
| Lead C | perator: | Jonathan Delgado | C | | 20135 | | 6 days per week | | | | | |
| Other (| Operators: | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 1 | and the state of the state | | | | | | | | | | | |
| and the second | TELS LINES | | | | | | | | | | | |
| 1000 | Non and | | | | | | | | | | | |
| Yorks | | | | | | | | | | | | |
| 1-2/15- | with the states | | | | | | | | | | | |
| | | | | | | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

DEP Form 62-555 900(3) Effective August 28, 2003 10/05/21 Jonathan Delgado

Printed or Typed Name

20135 License Number

Page 1

| PWS | dentificatio | on Number: | 6280049 | | | Plant Nam | ne: | GLENW | DOD WAT | TER PLAN | NT #2 | | |
|------------------------|----------------------------|---|-----------------------|---|--|--|-----------------------------|--------------------|--|---|---|---|--|
| III. D | aily Data f | or the Month | /Year of: | September, 202 | 1 | | | | | | | | |
| Means Ult | of Achiev raviolet Radi | ing Four-Log ation | Virus Inact | ivation/Removal: Describe): | * 🗸 Free | Chlorine | | Chlorine Dio | xide [| Ozone | Con | nbine Chlorine (C | Thoramines) |
| Type o | of Disinfect | ant Residual M | Maintained | in Distribution S | ystem: | Free Chlorin | е | Combine | e Chlorine (| Choramines | .) | Chlorine Dic | oxide |
| | ALC: NO | | Q 200 | CT Calculations | or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiv | ation, if Appl | licable* | 1222 1 | The states of | - Constanting |
| 1033 | the state | The second second | | and all and all | CT Calcu | lations | | | | UV | Dose | | and the second of the second sec |
| Day of the Month | Hours Plant in | Net Quantity of Finished Water Produced gal | Peak Flow Rate and | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow mp/l | Contact Time (T) at C Measurement Point During Peak Flow, minutes | Provided Before or at First Customer During Peak Flow | Temp. of Water, OC | pH of Water, if | Minimum CT Required, me-min/l | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System mg/l | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | 903.000 | rune, spu | Teak Tion, mgrL | minuco | T cuit T to tr, | 00 | rippireutite | ing mine L | Joesenie | Joceeniz | 1.9 | components out of operation |
| 2 | 24 | 722,000 | | | | | | | | - | | 1.0 | |
| 3 | 24 | 920,000 | | | | | | - | | | | 0.8 | |
| 4 | 24 | 720,000 | | | | | | | | | | 0.0 | |
| 5 | 24 | 1 876 000 | | | | | | | | | | 1.0 | |
| 6 | 24 | 989,000 | | | | - | | | | | | 1.4 | |
| 7 | 24 | 877,000 | | | | | | | | | | 0.7 | |
| 8 | 24 | 854,000 | | | | | | | | | | 2.0 | |
| 9 | 24 | 986,000 | | | | | | | | | | 1.9 | |
| 10 | 24 | 996,000 | | | | | | | | | | 1.8 | |
| 11 | 24 | | | | | | | | | | | | |
| 12 | 24 | 1,684,000 | | | | | | | | | | 0.6 | |
| 13 | 24 | 1,067,000 | | | | | | | | | | 2.1 | |
| 14 | 24 | 910,000 | | | | | | | | | | 2.2 | |
| 15 | 24 | 831,000 | | | | | | | | | | 2.3 | |
| 16 | 24 | 1,011,000 | | | | | | | | | | 2.0 | |
| 17 | 24 | 830,000 | | | | | | | | | | 2.2 | |
| 18 | 24 | | | | | | | | | | | | |
| 19 | 24 | 1,854,000 | | | | | | | | | | 2.4 | |
| 20 | 24 | 865,000 | | | | _ | | | | | | 2.3 | |
| 21 | 24 | 815,000 | | | _ | | | | | | | 2.2 | |
| 22 | 24 | 1,186,000 | | | | | | | | | | 2.4 | |
| 23 | 24 | 941,000 | | E | | | | | | | | 2.0 | |
| 24 | 24 | 784,000 | | | | | | | | | | 2.0 | |
| 25 | 24 | | | | | | | | | | | | |
| 26 | 24 | 2,124,000 | | | | | | | | | | 2.0 | |
| 27 | 24 | 912,000 | | | | | | | | | | 2.1 | |
| 28 | 24 | 810,000 | | | | | | | | | | 2.2 | |
| 29 | 24 | 1,136,000 | | | | | | | | | | 2.1 | |
| 30 | 24 | 648,000 | | | | | | | | | - | 2.0 | |
| Total | | 27 531 000 | | | | | _ | | | | | | |
| Average | | 1 059 995 | | | | | | | | | | | |

2,124,000

Maximum

* Refer to the instructions for this report to determine which plants must provide this information.

| | dentification Number: 6280049 | Plant Nan | ie: (| GLENWOOD WATER PLANT #2 | |
|-------|---|--|------------|--|------|
| V. Su | mmary of Use of Polymer Containing | Acrylamide, Polymer Containing | Epichlor | ohydrin, and Iron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | Is any polymer containing the monome | r acrylamide used at the water treatme | ent plant? | ? No Yes, and the polymer dose and the acrylamide level in the polymer are as follows: | |
| 1 | Polymer Dose, ppm= | | 1 | Acrylamide Level, $\%^{\dagger} =$ | |
| В. | Is any polymer containing the monome are as follows: | r <u>epichlorohydrin</u> used at the water tro | eatment p | plant? I No Yes, and the polymer dose and the epichlorohydrin level in the polymer | |
| | Polymer Dose, ppm= | | I | Epichlorohydrin Level, % [†] = | |
| C. | Is any iron or manganese sequestrant u | sed at the water treatment plant? | ✓ No | Yes, and the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (polyphosphate or | sodium silicate): | | | |
| | Sequestrant Dose, mg/L of phosphate a | s PO ₄ or mg/L of silicate as $SiO_2 =$ | | 1.51538 mg/L | |
| | If sodium silicate is used, the amount o | f added plus naturally occurring silica | ite, in mg | g/L as SiO ₂ = | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

* Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



| Se | e page 4 for instruction | as. | | | | | | | | | | | |
|----|---|---------------------------------------|-------------------------|--|--------------------------|----------------|-----------------------|-------|--|--|--|--|--|
| 1. | General Information | for the Month/Year of: September, 202 | 21 | | | | | | | | | | |
| A. | Public Water System | (PWS) Information | | | | | | | | | | | |
| | PWS Name: CR | YSTAL LAKE WATER PLANT #7 | | I | WS Identification Num | ber: 6280 | 049 | | | | | | |
| | PWS Type: | Community Non-Transient Non-Community | Transient Non- | Community | Consecutive | e | | | | | | | |
| | Number of Service C | onnections at End of Month: 506 | | Total Po | pulation Served at End o | of Month: | 800 | | | | | | |
| | PWS Owner: CIT | Y OF AVON PARK | | | | | | | | | | | |
| | Contact Person: Jon | athan Delgado | | Contact] | Person's Title: | Lead Plant Op | erator | | | | | | |
| | Contact Person's Mai | ling Address: 2504 U.S. 27 SOUTH | | City: A | AVON PARK | State: FL | Zip Code: | 33825 | | | | | |
| | Contact Person's Tele | phone Number: 863-443-1806 | | Contact I | Person's Fax Number: | 863-452-1078 | | | | | | | |
| | Contact Person's E-M | ail Address: operator@avonpark.cc | | A. | | | | | | | | | |
| Β. | Water Treatment Plant Information | | | | | | | | | | | | |
| | Plant Name: CR | YSTAL LAKE WATER PLANT #7 | | P | lant Telephone Number | : 863-443-1806 | | | | | | | |
| | Plant Address: | | | City: A | VON PARK | State: FL | Zip Code: | 33825 | | | | | |
| | Type of Water Treate | d by Plant: 🗹 Raw Ground Water 🗌 P | Purchased Finished Wate | er | | 107 | | | | | | | |
| | Permitted Maximum Day Operating Capacity of Plant, gallons per day: 500,000 | | | | | | | | | | | | |
| | Plant Category (per s | ubsection 62-699.310(4), F.A.C.): 5 | | Plant Class (per subsection 62-699.310(4), 7 | | | F.A.C.): C | | | | | | |
| | Licensed Operators | Name | License Cla | ass | License Number | Da | ay(s)/Shift(s) Worked | | | | | | |
| | Lead/Chief Operator: | Jonathan Delgado | C | | 20135 | | 6 days per week | | | | | | |
| | Other Operators: | | п | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | - | | | | | | |
| | | | | | | | | | | | | | |
| | - 1 B P - 3 3 | | | _ | | | | | | | | | |
| | En tenter | | | | | | | | | | | | |
| | CIN CONTRACTOR | | | | | | | | | | | | |
| | MEDEL | | | | | | | | | | | | |
| | The second second second | | | | | | | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555 900(3) Effective August 28, 2003 10/05/21 Jonathan Delgado

Printed or Typed Name

20135 License Number

| III. Daily Data for the Month/Vear of: September, 2021 Means of Achieving Four-Log Virus Inactivation/Removal: * Free Chlorine Chlorine Dioxide Ozone Ultraviolet Radiation Other (Describe): Type of Disinfectant Residual Maintained in Distribution System: Free Chlorine Combine Chlorine (Choramines CT Calculations, or UV Dose, to Demonstrate Four-Log Virus Inactivation, if Applicable* UV CT Calculations, or UV Dose, to Demonstrate Four-Log Virus Inactivation, if Applicable* UV Day of Hours Plant Net Quantity of Finished Water Peak Flow, Before or at First Castomer During Point During Out on the finished Water Peak Flow, mg/L Description Temp. Minimum Minimum OT UV Dose, to Demonstrate Four-Log Virus Inactivation, if Applicable* Day of Hours Plant Net Quantity of Finished Water Peak Flow, mg/L Lowest CT I Provided Before or at First Customer During Point During Out to the Water, if Required, mW-sec/cm2 Minimum OT I During Out to the mean of | Combine Chlorine (Choramines) Chlorine Dioxide Dose |
|---|--|
| Means of Achieving Four-Log Virus Inactivation/Removal: * Free Chlorine Chlorine Dioxide Ozone Ultraviolet Radiation Other (Describe): | Combine Chlorine (Choramines) Chlorine Dioxide Dose |
| Ultraviolet Radiation Other (Describe): Type of Disinfectant Residual Maintained in Distribution System: Free Chlorine Combine Chlorine (Choramines) Utraviolet Radiation CT Calculations, or UV.Dose, to Demonstrate Four-Log Virus Inactivation, if Applicable* UV Day of Hours Plant Net Quantity of the in Finished Water Lowest Residual Disinfectant Concentration (C) Goncentration (C) Goncentration (C) Before or at First Before or at First Month Operation Peak Flow, Eustomer During Peak Flow, mg/L Lowest Flow, mg/L During Peak Flow, mg/L Octamer Maintegration (C) applicable Minimum Minimum Minimum Operation 1 24 20,000 Peak Flow, mg/L Peak Flow, mg/L Peak Flow, During OC Applicable mg-min/L sec/cm2 3 24 15,000 Peak | s) Chlorine Dioxide |
| Type of Disinfectant Residual Maintained in Distribution System: Pree Choine Combine Chorne (Choramines) CT Calculations, or UV Dose, to Demonstrate Four-Log Virus Inactivation, if Applicable* UV CT Calculations UV CT Calculations, or UV Dose, to Demonstrate Four-Log Virus Inactivation, if Applicable* UV Day of Hours Plant Net Quantity of Finished Water Deak Flow, Customer During Peak Flow, During Customer Customer Value, at First Of PH of CT UV Dose, of PH of CT UV Dose, mW- Month Operation Produced, gal Rate, gpd Peak Flow, mg/L Peak Flow, During Ouring OC Applicable mW- 2 24 30,000 C | /Dose |
| Day of the in Month Operation Net Quantity of Finished Water Produced, gal Peak Flow Rate, gpd Lowest Residual Disinfectant Concentration (C) Disinfectant (T) at C Lowest CT Before or at First Penp. Of Operation Minimum Operation Minimum CT Calculations Minimum Provided Minimum Operating Minimum UV Dose, mW- 1 24 20,000 Peak Flow, Produced, gal Peak Flow, mg/L Peak Flow, Peak Flow, During OC Applicable mW- 2 24 30,000 Peak Flow, mg/L Peak Flow, Peak Flow, During OC Applicable mg-min/L sec/cm2 3 24 15,000 Peak Pea | / Dose |
| Day of the in MonthNet Quantity of Finished Water Produced, galLowest Residual Disinfectant Concentration (C)Disinfectant Contact Time Point DuringLowest CT Provided Before or Temp. Of DuringpH of CTLowest UV Dose, mW- sec/cm212420,000Customer During Peak Flow, Rate, gpdPeak Flow, mg/LPeak Flow, Peak Flow, DuringOCMainimum OCMinimum Operating UV Dose, mW- sec/cm212420,000Customer During Peak Flow, Peak Flow, Peak Flow, DuringCustomer DuringWater, if Applicable mg-min/LRequired, mW- sec/cm222430,000Customer During Peak Flow, Peak Flow, DuringCustomer DuringCustomer DuringWater, if Applicable mg-min/LCustomer mg-min/L32415,000Customer Produced, galCustomer Peak Flow, Peak Flow, DuringCustomer DuringCustomer DuringCustomer DuringCustomer OC4240Customer Produced, PeakCustomer PeakCustomer PeakCustomer PeakCustomer PeakCustomer PeakCustomer PeakCustomer PeakCustomer PeakCustomer PeakCustomer PeakCustomer PeakCustomer PeakCustomer PeakCustomer PeakCustomer PeakCustomer PeakCustomer | Dose |
| Day of the in Month OperationNet Quantity of Finished Water Produced, galPeak Flow Rate, gpdContact Time Concentration (C) Before or at First Customer During Peak Flow, mg/LProvided Before or at First Customer During Peak Flow, Peak Flow, DuringProvided Before or at First Customer DuringProvided Temp. of Water, OCPH of Water, if Required, My membricLowest Operating UV Dose, mW- sec/cm212420,000 | I owest Residual |
| Month Operation Produced, gal Rate, gpd Peak Flow, mg/L Peak Flow, During OC Applicable mg-mm/L sec/cm2 1 24 20,000 | Minimum UV Dose Required, mW- Distribution Emergency or Abnormal Operating Conditions: Rep Maintenance Work that Involves Taking Water Sys |
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | sec/cm2 System, mg/L Components Out of Operation |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 2.0 |
| 3 24 15,000 4 24 0 5 24 6 24 7 24 8 24 9 24 10 24 | 1.2 |
| 4 24 0 5 24 6 24 7 24 8 24 9 24 10 24 | 2.0 |
| 5 24 6 24 0 7 24 0 8 24 0 9 24 0 10 24 0 | 2.2 |
| 0 24 0 7 24 0 8 24 0 9 24 0 10 24 0 | 22 |
| 7 24 0 8 24 0 9 24 0 10 24 0 | 2.2 |
| 8 24 0 9 24 0 10 24 0 | 2.2 |
| 10 24 0 | 22 |
| 24 V | 22 |
| 11 24 | 40.50 |
| 12 24 0 | 2.2 |
| 13 24 0 | 2.2 |
| 14 24 0 | 2.1 |
| 15 24 25,000 | 2.0 |
| 16 24 16,000 | 2.0 |
| 17 24 7,000 | 2.2 |
| 18 24 | |
| 19 24 11,000 | 2.2 |
| 20 24 8,000 | 2.2 |
| 21 24 0 | 2.0 |
| 22 24 0 | 2.0 |
| 23 24 0 | 2.2 |
| 24 24 0 | 2.2 |
| 25 24 | |
| 26 24 0 | 2.2 |
| 27 24 0 | 2.2 |
| 28 24 0 | 2.2 |
| 29 24 0 | 2.1 |
| 30 24 0 | 22 |
| | 2.4 |
| Total 132,000 | <i>u.4</i> |

Maximum 30,000

* Refer to the instructions for this report to determine which plants must provide this information.

PWS Identification Number: 6284111 Plant Name: Crystal Lake Club IV. Summary of Use of Polymer Containing Acrylamide, Polymer Containing Epichlorohydrin, and Iron or Manganese Sequestrant for the Year:* 2021 V No

A. Is any polymer containing the monomer acrylamide used at the water treatment plant?

Yes, and the polymer dose and the acrylamide level in the polymer are as follows:

1

Page 2



See page 4 for instructions. I. General Information for the Month/Year of: October, 2021 A. Public Water System (PWS) Information PWS Name: CITY OF AVON PARK **PWS Identification Number:** 6280049 PWS Type: ✓ Community Non-Transient Non-Community Transient Non-Community Consecutive Number of Service Connections at End of Month: 7037 Total Population Served at End of Month: 18561 PWS Owner: CITY OF AVON PARK Contact Person: Jonathan Delgado Contact Person's Title: Lead Plant Operator Contact Person's Mailing Address: 2504 U.S. 27 SOUTH State: FL Zip Code: City: AVON PARK 33825 Contact Person's Telephone Number: 863-443-1806 Contact Person's Fax Number: 863-452-1078 Contact Person's E-Mail Address: operator@avonpark.cc B. Water Treatment Plant Information Plant Name: **GLENWOOD WATER PLANT #2** Plant Telephone Number: 863-443-1806 **AVON PARK** Plant Address: 100 S. GLENWOOD AVENUE City: State: FL Zip Code: 33825 Raw Ground Water Type of Water Treated by Plant: Purchased Finished Water Permitted Maximum Day Operating Capacity of Plant, gallons per day: 1,700,000 Plant Category (per subsection 62-699.310(4), F.A.C.): 5 Plant Class (per subsection 62-699.310(4), F.A.C.): С Licensed Operators Day(s)/Shift(s) Worked License Class License Number Name Lead Operator: 6 days per week Jonathan Delgado C 20135 Other Operators:

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date

10/05/21 Jonathan Delgado Printed or Typed Name 20135 License Number

| PWS I | dentificatio | on Number: | 6280049 | | | Plant Nam | ie: | GLENWO | OD WAT | ER PLAN | JT #2 | | |
|---------|--------------|-----------------|-------------|--------------------|--------------------|-----------------------|---------|----------------|----------------|-------------|-----------|-------------------|---|
| III. Da | ily Data f | or the Month | /Year of: | October, 2021 | 45.075.5 | | | | | | | | |
| Means | of Achiev | ing Four-Log | Virus Inact | ivation/Removal: | * 🗸 Free | Chlorine | | Chlorine Dio | xide 🗌 | Ozone | Con | nbine Chlorine (C | horamines) |
| Ult | aviolet Radi | ation | Other (D | escribe): | | | | | | | | | |
| Type o | f Disinfect | ant Residual N | Maintained | in Distribution S | ystem: 🔽 | Free Chlorin | e | Combine | Chlorine (C | Choramines) |) | Chlorine Dio | xide |
| 1 | No With | P. S. YLetter | | CT Calculations | , or UV Dose, to I | Demonstrate F | our-Log | Virus Inactiva | ation, if Appl | icable* | | ALC: NOT | and a second state of the second state of the |
| 1.78.1 | | 2243 | | | CT Calcu | lations | 100 | - | - | UV | Dose | | the second state of the second |
| | 121224 | The seal of the | | Lowest Residual | Contact Time | Provided Reference | 1.10-1 | 1.1.1 | 198-57 | Louiset | Minimum | Lowest Residual | |
| | X | C. TABLEY | | Concentration (C) | Measurement | at First | Temp. | 1975 - 200 | Minimum | Operating | UV Dose | Concentration at | |
| Day of | Hours Plant | Net Quantity of | | Before or at First | Point During | Customer | of | pH of | CT | UV Dose, | Required. | Remote Point in | Emergency or Abnormal Operating Conditions; Repair or |
| the | in | Finished Water | Peak Flow | Customer During | Peak Flow, | During | Water, | Water, if | Required, | mW- | mW- | Distribution | Maintenance Work that Involves Taking Water System |
| Month | Operation | Produced, gal | Rate, gpd | Peak Flow, mg/L | minutes | Peak Flow, | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation |
| I | 24 | 834,000 | | | | | | | | | | 2.1 | |
| 2 | 24 | | | | | | | | _ | | | | |
| 3 | 24 | 1,810,000 | | | | | | | | | | 1.9 | |
| 4 | 24 | 1,111,000 | | | | | | | | | | 1.8 | |
| 5 | 24 | 928,000 | | | | | | | | | | 2.1 | |
| 6 | 24 | 870,000 | | | | | | | | | _ | 2.0 | |
| 7 | 24 | 853,000 | | | | | - | _ | | | | 2.0 | |
| 8 | 24 | 915,000 | | | | | | | | | | 2.0 | × |
| 9 | 24 | | | | | | | | | | | | |
| 10 | 24 | 1,850,000 | | | | | | | | | | 0.2 | |
| 11 | 24 | 849,000 | | | | | | | | | | 1.7 | |
| 12 | 24 | 1,005,000 | | | | | | | | | | 2.0 | |
| 13 | 24 | 1,110,000 | | | | | | | | | | 1.5 | |
| 14 | 24 | 1,388,000 | | | | | _ | | | | | 0.3 | |
| 15 | 24 | 912,000 | | | | | | | | | | 1./ | |
| 10 | 24 | 2.200.000 | | | | | | | | | | 1.6 | |
| 1/ | 24 | 2,396,000 | - | | | | | | | | | 1.5 | |
| 10 | 24 | 1,150,000 | | | | | | | | | | 0.9 | |
| 19 | 24 | 1,125,000 | | | | | | | | | | 1.4 | |
| 20 | 24 | 1,047,000 | | | _ | | - | | | | _ | 0.5 | |
| 21 | 24 | 1,100,000 | | | | | | | | | | 1.0 | |
| 22 | 24 | 1,319,000 | | | | | | | | | | 1.9 | |
| 20 | 24 | 2 436 000 | | | | | | | | | | 2.2 | |
| 25 | 24 | 780,000 | | | | | | | | | | 2.2 | |
| 26 | 24 | 1 403 000 | | | | | - | | | | | 2.0 | |
| 27 | 24 | 740,000 | | | | | | | | | | 2.4 | |
| 28 | 24 | 1,116,000 | | | | | | | | | | 2.3 | |
| 29 | 24 | 780,000 | | | | | | | | | | 1.1 | |
| 30 | 24 | | | | | | | | | | | | |
| 31 | 24 | 1 157 000 | | | | | | | | | | 1.6 | |
| Fotal | | 31,050,000 | | | | | | | | | | 1.0 | |
| Verage | | 1 194 231 | | | | | | | | | | | |

2,436,000

Maximum

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6280049 PI | ant Name: | GLENWOOD WATER PLANT #2 | |
|-------|---|---|-----------------|---|------|
| IV. S | ummary of Use of Poly | mer Containing Acrylamide, Polymer Cont | aining Epichl | orohydrin, and Iron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | Is any polymer contain | ing the monomer acrylamide used at the wate | r treatment pla | nt? No Yes, and the polymer dose and the acrylamide level in the polymer are as follows: | |
| | Polymer Dose, ppm= | | | Acrylamide Level, $\%^{\dagger} =$ | |
| Β. | Is any polymer contain are as follows: | ing the monomer epichlorohydrin used at the | water treatmen | nt plant? No Yes, and the polymer dose and the epichlorohydrin level in the polymer | |
| | Polymer Dose, ppm= | | | Epichlorohydrin Level, $\%^{\dagger} =$ | |
| C. | Is any iron or mangane | ese sequestrant used at the water treatment pla | nt? 🔽 N | Ves, and the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (p | olyphosphate or sodium silicate): | | | |
| | Sequestrant Dose, mg/ | L of phosphate as PO4 or mg/L of silicate as S | $iO_2 =$ | 1.33226 mg/L | |
| | If sodium silicate is us | ed, the amount of added plus naturally occurri | ng silicate, in | mg/L as $SiO_2 =$ | |
| | | | | 지수는 것 같아. 이렇게 가지 않는 것 같아. 이 가지 않는 것 같아. 이 가지 않는 것 | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

* Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



I.

MONTHLY OPERATION REPORT FOR PWSs TREATING RAW GROUND WATER OR PURCHASED FINISHED WATER

See page 4 for instructions.

| te page 4 for instructions. | |
|--|---------------|
| General Information for the Month/Year of: | October, 2021 |

| Α. | Public | Water S | ystem | (PWS) | Information | |
|----|--------|---------|-------|-------|-------------|--|
|----|--------|---------|-------|-------|-------------|--|

| PWS Name: CITY C | OF AVON PARK | | PWS Identification Nu | mber: 62800 | 49 | |
|-----------------------------|---|-------------------------|---------------------------------|----------------------|----------------------|---------------|
| PWS Type: 🗸 Comn | nunity Non-Transient Non-Community | Transient Non-0 | Community Consecut | ive | | |
| Number of Service Conne | ections at End of Month: 7037 | | Total Population Served at End | l of Month: | 18561 | |
| PWS Owner: CITY C | OF AVON PARK | | | | | |
| Contact Person: Jonatha | n Delgado | | Contact Person's Title: | Lead Plant Oper | rator | |
| Contact Person's Mailing | Address: 2504 U.S. 27 SOUTH | | City: AVON PARK | State: FL | Zip Code | 33825 |
| Contact Person's Telepho | ne Number: 863-443-1806 | | Contact Person's Fax Number: | 863-452-1078 | | |
| Contact Person's E-Mail | Address: operator@avonpark.cc | | | | | |
| B. Water Treatment Plant In | formation | | | | | |
| Plant Name: BELL S | STREET WATER PLANT #1 | | Plant Telephone Numb | er: 863-443-1806 | | |
| Plant Address: 1350 W | . BELL STREET | | City: AVON PARK | State: FL | Zip Code | 33825 |
| Type of Water Treated by | Plant: 🛛 Raw Ground Water | Purchased Finished Wate | r | | | |
| Permitted Maximum Day | Operating Capacity of Plant, gallons per da | ay: 5,300,000 | | | | |
| Plant Category (per subse | ction 62-699.310(4), F.A.C.): 4 | | Plant Class (per subsection 62- | 699.310(4), F.A.C.): | С | |
| Licensed Operators | Name | License Cla | ss License Number | Da | y(s)/Shift(s) Worked | In the second |
| Lead/Chief Operator: | Jonathan Delgado | C | 20135 | | 6 days per week | |
| Other Operators: | | | | | | |
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| ALL REAL PETRON | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555.900(3) Effective August 28, 2003 Jonathan Delgado Printed or Typed Name 20135 License Number

Page 1

10/05/21

| PWSI | dentificatio | on Number: | 6280049 | | | 1 | | BELL ST | REET WA | TER PLA | NT #1 | | |
|------------------------|--------------------------------|--|------------------------|--|--|---|-----------------------------|----------------------------------|--|---|---|--|--|
| III. D | aily Data f | or the Month | /Year of: | October, 2021 | | | | | | | | | |
| Means | of Achiev | ing Four-Log | Virus Inact | ivation/Removal: | * 🖌 Free | Chlorine | | Chlorine Dio | xide | Ozone | Con | nbine Chlorine (C | Choramines) |
| Ult | raviolet Radi | ation | Other (| Describe): | | | | | | | | | |
| Type of | of Disinfect | tant Residual N | Maintained | in Distribution S | ystem: 🔽 | Free Chlorin | е | Combine | e Chlorine (| Choramines |) | Chlorine Dic | xide |
| | N. A. B. | | | CT Calculations | , or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiv | ation, if App | licable* | | San and | The state of the s |
| -140 | E. Far | 1911 - 20 | and the second second | | CT Calcu | lations | | | | UV | Dose | | |
| Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Contact Time (T) at C Measurement Point During Peak Flow, minutes | Provided Before or at First Customer During Peak Flow, | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions, Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | 1,055,000 | | | | | | | | | | 2.1 | |
| 2 | 24 | | | | | | | | | | | 1 | |
| 3 | 24 | 2,006,000 | | | | | | | | | | 2.2 | |
| 4 | 24 | 1,393,000 | | | | | | | | | | 1.9 | |
| 5 | 24 | 1,352,000 | | | | | | | | | | 1.9 | |
| 6 | 24 | 1,021,000 | | | | | | | | | | 1.8 | |
| 7 | 24 | 1,115,000 | | | | | | | | | | 1.8 | |
| 8 | 24 | 1,529,000 | | | | | | | | | | 2.0 | |
| 9 | 24 | | | | | | | | A A A | | | | |
| 10 | 24 | 2,129,000 | | | | 0 | | | | | | 2.2 | |
| 11 | 24 | 926,000 | | | | | | | | | | 2.6 | |
| 12 | 24 | 1,048,000 | | | | | | | | | | 3.0 | |
| 13 | 24 | 710,000 | | | | | | | | | | 2.1 | |
| 14 | 24 | 676,000 | | | | | | | | | | 1.7 | |
| 15 | 24 | 1,134,000 | | | | | | | | | | 2.2 | |
| 16 | 24 | | | | | | | | | | | | |
| 17 | 24 | 1,920,000 | | | | | | | | | | 1.8 | |
| 18 | 24 | 1,117,000 | | | | | | | | | | 2.4 | |
| 19 | 24 | 937,000 | | | | | | | | | | 2.2 | |
| 20 | 24 | 920,000 | | | | | | | | | | 2.7 | |
| 21 | 24 | 1,315,000 | | | | | | | | | | 1.8 | |
| 22 | 24 | 958,000 | | | | | | | | | | 2.4 | |
| 23 | 24 | | | | | | | | | | | | |
| 24 | 24 | 2,313,000 | | | | | | | | | | 2.6 | |
| 25 | 24 | 1,250,000 | | | | | | | | | | 2.6 | |
| 26 | 24 | 1,233,000 | | | | | | | | | | 2.0 | |
| 27 | 24 | 1,383,000 | | | | | | | | | | 1.9 | |
| 28 | 24 | 1,605,000 | | | | | | | | | | 1.7 | |
| 29 | 24 | 1,291,000 | | | | | | | | | | 2.0 | |
| 30 | 24 | | | | | | | | | | | | |
| 31 | 24 | 2,014,000 | | | | | | | | | | 1.6 | |
| Total | | 34,350,000 | | | | | | | | | | | |
| Average | | 1,321,154 | | | | | | | | | | | |
| Maximu | n | 2,313,000 | | | | | | | | | | | |

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6280049 | Plant Name: | BELL STREET | WATER PLANT #1 | |
|-------|---|---|------------------------|-------------------|--|-------------|
| IV. S | ummary of Use of Poly | ner Containing Acrylamide, Polymer | r Containing Epich | lorohydrin, and I | ron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | | | | ✓ No | Yes, and the polymer dose and the acrylamide level in the polymer are | as follows: |
| | Polymer Dose, ppm= | | | Acrylamide Lev | el, % [†] = | |
| В. | Is any polymer contain are as follows: | ing the monomer epichlorohydrin used | at the water treatment | nt plant? | No Yes, and the polymer dose and the epichlorohydrin level in the poly | ymer |
| | Polymer Dose, ppm= | | | Epichlorohydrir | Level, $\%^{\dagger} =$ | |
| C. | Is any iron or mangane | se sequestrant used at the water treatme | ent plant? | No 🔽 Yes, and | the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (p | olyphosphate or sodium silicate): | polyphosphate | | | |
| | Sequestrant Dose, mg/l | of phosphate as PO4 or mg/L of silica | te as $SiO_2 =$ | 0.98065 mg/l | | |
| | If sodium silicate is use | ed, the amount of added plus naturally of | occurring silicate, in | mg/L as $SiO_2 =$ | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

+ Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



| See page 4 for instructions. | | | | | |
|--|-------------------------|----------------------------|---------------------|----------------------|-------|
| I. General Information for the Month/Year of: October, 2021 | | | | | |
| A. Public Water System (PWS) Information | | | | | |
| PWS Name: CRYSTAL LAKE WATER PLANT #7 | | PWS Identification Num | iber: 62800 | 49 | |
| PWS Type: Community Non-Transient Non-Community | Transient Non-Commun | ity Consecutiv | re | | |
| Number of Service Connections at End of Month: 506 | Total I | Population Served at End | of Month: | 800 | |
| PWS Owner: CITY OF AVON PARK | | | | | |
| Contact Person: Jonathan Delgado | Contac | ct Person's Title: | Lead Plant Ope | rator | |
| Contact Person's Mailing Address: 2504 U.S. 27 SOUTH | City: | AVON PARK | State: FL | Zip Code: | 33825 |
| Contact Person's Telephone Number: 863-443-1806 | Contac | t Person's Fax Number: | 863-452-1078 | | |
| Contact Person's E-Mail Address: operator@avonpark.cc | | | | | |
| B. Water Treatment Plant Information | | | | | |
| Plant Name: CRYSTAL LAKE WATER PLANT #7 | | Plant Telephone Number | r: 863-443-1806 | | |
| Plant Address: | City: | AVON PARK | State: FL | Zip Code: | 33825 |
| Type of Water Treated by Plant: Raw Ground Water | irchased Finished Water | | | | |
| Permitted Maximum Day Operating Capacity of Plant, gallons per day: | 500,000 | | | | |
| Plant Category (per subsection 62-699.310(4), F.A.C.): 5 | Plant C | Class (per subsection 62-6 | 99.310(4), F.A.C.): | С | |
| Licensed Operators Name | License Class | License Number | Da | y(s)/Shift(s) Worked | |
| Lead/Chief Operator: Jonathan Delgado | C | 20135 | | 6 days per week | |
| Other Operators: | | | | | |
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| ATTACK DETERMINE | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

ignature and Date

10/05/21 Jonathan Delgado Printed or Typed Name 20135 License Number

| PWS I | dentificatio | on Number: | 6284111 | | | Plant Nam | ne: | Crystal La | ake Club | | | | |
|------------------------|---|--|-------------------------|--|---|--|-----------------------------|----------------------------------|--|---|---|--|--|
| III. Da | aily Data f | or the Month | /Year of: | October, 2021 | | | | | | | | | |
| Means | of Achievi raviolet Radi | ing Four-Log ` ation | Virus Inacti | vation/Removal: Describe): | * 🗌 Free | Chlorine | | Chlorine Dio | xide | Ozone | Con | ibine Chlorine (C | horamines) |
| Type o | of Disinfect | ant Residual N | Maintained | in Distribution Sy | /stem: | Free Chlorin | e | Combin | e Chlorine (| Choramines |) | Chlorine Dio | xide |
| | CT Calculations, or UV Dose, to Demonstrate Four-Log Virus Inactivation, if Applicable* | | | | | | | | | | | | |
| | C. C. M. C. | Salar Salar Salar | CT Calculations UV Dose | | | | | | | | | | |
| Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Disinfectant Contact Time (T) at C Measurement Point During Peak Flow, | Lowest CT Provided Before or at First Customer During | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | 0 | | | | | | | | | | 2.0 | |
| 2 | 24 | | | | | | | | | | | | |
| 3 | 24 | 0 | | | | | | | | | | 2.0 | |
| 4 | 24 | 0 | | | | | | | | | | 2.0 | |
| 5 | 24 | 119,000 | | | | | - | | | | | 2.0 | |
| 6 | 24 | 28,000 | | | | | - | | | | - | 2.1 | |
| 7 | 24 | 11,000 | | | | | | | | | | 1.9 | |
| 8 | 24 | 12,000 | | | | | | | | | | 2.0 | |
| 9 | 24 | | | | | | - | | | | | 10 | |
| 10 | 24 | 34,000 | | | | | - | | | | | 1.9 | |
| П | 24 | 22,000 | | | | _ | | | | | | 1.9 | |
| 12 | 24 | 50,000 | _ | | | | - | | 1 | (| - | 1.7 | |
| 13 | 24 | 26,000 | | | | | | | | | | 1.0 | |
| 14 | 24 | 28,000 | | | | | | | - | | | 1.9 | |
| D | 24 | 11,000 | | | | | - | | | | | 1.9 | |
| 10 | 24 | 21.000 | | | | | | | | | | 2.0 | |
| 1/ | 24 | 21,000 | | | | | | | | | | 1.0 | |
| 10 | 24 | 42,000 | | | | | | | | | | 1.9 | |
| 20 | 24 | 35,000 | 8 | - | | | - | - | | | - | 2.0 | |
| 20 | 24 | 40,000 | | | | 100 | | | | | | 2.0 | |
| 22 | 24 | 32,000 | | | - | 1995 | | | | | | 2.4 | |
| 23 | 74 | 52,000 | | | | | | | | | | | |
| 24 | 24 | 96.000 | | | | | - | | | - | | 2.0 | |
| 25 | 24 | 0 | | | | | | | | | | 1.8 | |
| 26 | 24 | 0 | | | | | | | | | | 1.6 | |
| 27 | 24 | 0 | | | | | | | | | | 1.9 | |
| 28 | 24 | 0 | | | | | | | | | | 1.9 | |
| 29 | 24 | 51,000 | | | | | | | | | | 1.9 | |
| 30 | 24 | | | | | | | | | | | | |
| 31 | 24 | 72,000 | | | | | | | | | | 1.9 | |
| otal | AV STATE OF | 765,000 | | | | | | | | | | | |

29,423.1 Average Maximum 119,000

* Refer to the instructions for this report to determine which plants must provide this information.

PWS Identification Number: 6284111 Plant Name: Crystal Lake Club IV. Summary of Use of Polymer Containing Acrylamide, Polymer Containing Epichlorohydrin, and Iron or Manganese Sequestrant for the Year:* 2021 ✓ No

A. Is any polymer containing the monomer acrylamide used at the water treatment plant?

Yes, and the polymer dose and the acrylamide level in the polymer are as follows:

1



and a Construction

MONTHLY OPERATION REPORT FOR PWSs TREATING RAW GROUND WATER OR PURCHASED FINISHED WATER

| See page 4 for instructio | ns. | | | | | |
|------------------------------|---|-----------------------|----------------------------|--------------------|---------------------|-------|
| I. General Information | for the Month/Year of: November, 2021 | | | | | |
| A. Public Water System | (PWS) Information | | | | | |
| PWS Name: CI | ΓY OF AVON PARK | | PWS Identification Numb | ber: 62800 | 49 | |
| PWS Type: | Community Non-Transient Non-Community | Transient Non-Communi | ty Consecutive | | | |
| Number of Service (| Connections at End of Month: 7037 | Total P | opulation Served at End o | f Month: | 18561 | |
| PWS Owner: CI | ΓY OF AVON PARK | | | | | |
| Contact Person: Jor | athan Delgado | Contac | t Person's Title: | Lead Plant Oper | rator | |
| Contact Person's Ma | iling Address: 2504 U.S. 27 SOUTH | City: | AVON PARK | State: FL | Zip Code: | 33825 |
| Contact Person's Tel | ephone Number: 863-443-1806 | Contac | t Person's Fax Number: | 863-452-1078 | | |
| Contact Person's E-M | Aail Address: operator@avonpark.cc | | | | | |
| B. Water Treatment Pla | nt Information | | | | | |
| Plant Name: GL | ENWOOD WATER PLANT #2 | | Plant Telephone Number: | 863-443-1806 | | |
| Plant Address: 100 |) S. GLENWOOD AVENUE | City: | AVON PARK | State: FL | Zip Code: | 33825 |
| Type of Water Treat | ed by Plant: 🔄 Raw Ground Water 🔄 Pure | chased Finished Water | | | | |
| Permitted Maximum | Day Operating Capacity of Plant, gallons per day: | 1,700,000 | | | | |
| Plant Category (per s | ubsection 62-699.310(4), F.A.C.): 5 | Plant C | lass (per subsection 62-69 | 9.310(4), F.A.C.): | С | |
| Licensed Operators | Name | License Class | License Number | Day | (s)/Shift(s) Worked | REY |
| Lead Operator: | Jonathan Delgado | С | 20135 | | 6 days per week | |
| Other Operators: | | | | | | |
| | | | | 2 | | |
| ALL STATISTICS | | | | | | |
| Seal Provent | | | | | | |
| A CONTRACTOR OF THE PARTY OF | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date

11/06/21 Jonathan Delgado Printed or Typed Name

20135 License Number

DEP Form 62-555.900(3) Effective August 28, 2003

Page 1

| PWS1 | dentificatio | on Number: | 6280049 | | | Plant Nam | ne: | GLENWO | DOD WAT | TER PLAN | VT #2 | | |
|------------------------|--------------------------------|--|------------------------|--|--|---|----------------------------|----------------------------------|--|---|---|--|---|
| III. Da | ily Data f | or the Month | /Year of: | November, 202 | 1 | | | | | | | | |
| Means | of Achiev | ring Four-Log | Virus Inact | ivation/Removal: Describe): | * ✓ Free | Chlorine | | Chlorine Dio | xide [| Ozone | Con | nbine Chlorine (C | Choramines) |
| Type | f Disinfect | tant Residual | Maintained | in Distribution S | vstem: | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Did | oxide |
| - 21 | | | | CT Calculations | or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiva | ation, if App | licable* | | A CHARTER OF | a source a light of the second second |
| Jan. | E. Carlos | 1000 | | | CT Calcu | lations | | | | UV | Dose | ARC - CA | |
| Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Contact Time (T) at C Measurement Point During Peak Flow, minutes | Provided Before or at First Customer During Peak Flow, | Temp of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions, Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | 920,000 | | | | | | | | | | 1.4 | A second s |
| 2 | 24 | 762,000 | | | | | | | | | | 1.2 | |
| 3 | 24 | 1,120,000 | | | | | | | | | | 1.4 | |
| 4 | 24 | 885,000 | | | | | | | | | | 0.8 | |
| 5 | 24 | 364,000 | | | | - | | | | | | 1.3 | |
| 6 | 24 | | | | | | | | | | | | |
| 7 | 24 | 1,421,000 | | | | | | | | | | 1.4 | |
| 8 | 24 | 707,000 | | | | | | | | | | 2.0 | |
| 9 | 24 | 593,000 | | | | | | | | | | 1.9 | |
| 10 | 24 | 886,000 | | | | | | | | | | 2.1 | |
| 11 | 24 | 558,000 | | | | | | | | | | 1.0 | |
| 12 | 24 | 836,000 | | | | | | | | | | 1.4 | |
| 13 | 24 | | | | | | | | | | | | |
| 14 | 24 | 1,393,000 | | | | | | | | | | 0.2 | |
| 15 | 24 | 413,000 | | | | | | | | | | 0.6 | |
| 16 | 24 | 645,000 | | | | | | | | / | | 1.0 | |
| 17 | 24 | 632,000 | | | | | | | | | | 1.2 | |
| 18 | 24 | 680,000 | | | | | _ | | | | | 1.3 | |
| 19 | 24 | 703,000 | | | | | | | | | | 1.5 | |
| 20 | 24 | | | | | | | | | | | | |
| 21 | 24 | 1,748,000 | | | | | | | | | | 1.5 | |
| 22 | 24 | 502,000 | | | | | _ | | | | | 1.4 | |
| 23 | 24 | 695,000 | | | | | _ | | | | | 1.3 | |
| 24 | 24 | 736,000 | | | | | | | | | | 1.7 | |
| 25 | 24 | 650,000 | | | | | | | | | | 1.6 | |
| 26 | 24 | 1,344,000 | | | | | | | | | - | 1.0 | |
| 27 | 24 | 2 212 000 | | | | | | | | | u | 1.0 | |
| 28 | 24 | 2,213,000 | | | | | | | | | | 1.0 | |
| 29 | 24 | 942,000 | | | | | | | | | | 2.4 | |
| 30 | 24 | 915,000 | | | | | | | | | | 2.4 | |
| Total | 1922-1 | 23 263 000 | | | | | | | | | 2 | | |
| Average | | 894,731 | | | | | | | | | | | |
| Maximur | n | 2,213,000 | | | | | | | | | | | |

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS Identification Number: 6280049 Plant Name: | GLENWOOD WATER PLANT #2 |
|--|---|
| V. Summary of Use of Polymer Containing Acrylamide, Polymer Containing Ep | bichlorohydrin, and Iron or Manganese Sequestrant for the Year:* 2021 |
| A. Is any polymer containing the monomer <u>acrylamide</u> used at the water treatment | t plant? Vo Yes, and the polymer dose and the acrylamide level in the polymer are as follows: |
| Polymer Dose, ppm= | Acrylamide Level, $\%^{\dagger} =$ |
| B. Is any polymer containing the monomer <u>epichlorohydrin</u> used at the water treat are as follows: | tment plant? I No Yes, and the polymer dose and the epichlorohydrin level in the polymer |
| Polymer Dose, ppm= | Epichlorohydrin Level, $\%^{\dagger} =$ |
| C. Is any iron or manganese sequestrant used at the water treatment plant? | ✓ No ✓ Yes, and the type of sequestrant, sequestrant dose, etc., are as follows: |
| Type of Sequestrant (polyphosphate or sodium silicate): | |
| Sequestrant Dose, mg/L of phosphate as PO_4 or mg/L of silicate as $SiO_2 =$ | 1.67308 mg/L |
| If sodium silicate is used, the amount of added plus naturally occurring silicate | , in mg/L as $SiO_2 =$ |
| | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

† Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555,900(3) Effective August 28, 2003 11/06/21 Jonathan Delgado Printed or Typed Name 20135 License Number

Page 1

| PWS I | dentificatio | on Number: | 6284111 | | | Plant Nam | ne: | Crystal La | ake Club | | | | |
|---------|---|-----------------------------------|-------------------------|---|---|--|----------------------|-------------------|---------------------------|--|--|--|---|
| III. D | aily Data f | or the Month | Year of: | November, 202 | 1 | | | | | | | | |
| Means | of Achievi raviolet Radia | ing Four-Log ' ation | Virus Inacti | ivation/Removal: Describe): | * 🗌 Free | Chlorine | | Chlorine Dio | xide | Ozone | Con | nbine Chlorine (C | horamines) |
| Type o | of Disinfect | ant Residual N | Maintained | in Distribution Sy | /stem: | Free Chlorin | e | Combin | e Chlorine (| Choramines |) | Chlorine Dic | uxide |
| | CT Calculations, or UV Dose, to Demonstrate Four-Log Virus Inactivation, if Applicable* | | | | | | | | | | | | |
| 12 10 1 | 1220-20 | 1-61-121 | CT Calculations UV Dose | | | | | | | | | A link on The | |
| Day of | Hours Plant | Net Quantity of Finished Water | Peak Flow | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During | Disinfectant Contact Time (T) at C Measurement Point During | Lowest CT Provided Before or at First Customer | Temp. of Water | pH of Water if | Minimum CT Required | Lowest Operating UV Dose, mW- | Minimum UV Dose Required, mW- | Lowest Residual Disinfectant Concentration at Remote Point in Distribution | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System |
| Month | Operation | Produced, gal | Rate, gpd | Peak Flow, mg/L | Peak Flow, | During | OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation |
| 1 | 24 | 20,000 | | | | | | | | | | 1.8 | |
| 2 | 24 | 5,000 | | | | | | | | | | 1.6 | |
| 3 | 24 | 0 | | | | | | | | | | 1.6 | |
| 4 | 24 | 0 | | | | | | | | | | 1.6 | |
| 5 | 24 | 4,000 | | | | | | - | | | | 1.8 | |
| 6 | 24 | | | | | | | | | | | | |
| 7 | 24 | 30,000 | | | | | | | | | | 2.0 | |
| 8 | 24 | 29,000 | | | | | | | | | | 1.7 | |
| 9 | 24 | 50,000 | | | | | | | | | | 1.6 | |
| 10 | 24 | 31,000 | | | | | | | | | | 1.9 | |
| 11 | 24 | 36,000 | | | | | | | | | | 1.7 | |
| 12 | 24 | 33,000 | | | | | | | | | | 1.6 | |
| 13 | 24 | | | | | | | | | | | | |
| 14 | 24 | 37,000 | | | | | | | | | | 1.6 | |
| 15 | 24 | 51,000 | | | | | | | | | | 1.6 | |
| 16 | 24 | 34,000 | | | | | | | | _ | _ | 1.7 | |
| 17 | 24 | 37,000 | | | | | - | | | | | 1.5 | |
| 18 | 24 | 360,000 | | | | | | | | | | 1.7 | |
| 19 | 24 | 63,000 | | | | _ | | | | | | 1.7 | |
| 20 | 24 | | | - | | | | _ | | | - | 1.6 | |
| 21 | 24 | 0 | | | | _ | - | | | | | 1.5 | |
| 22 | 24 | 0 | | | - | | | _ | | | | 1.5 | |
| 23 | 24 | 0 | | | | | - | - | - | _ | | 1.5 | |
| 24 | 24 | 0 | | | | | | | | | | 1.5 | |
| 25 | 24 | 0 | | | | | | | | | | 1.7 | |
| 26 | 24 | 0 | | | | | | | | | | 1.7 | |
| 2/ | 24 | 0 | | | | | - | | | | | 1.7 | |
| 28 | 24 | 0 | | | | | | | | | | 1.7 | |
| 29 | 24 | 0 | | | | | | _ | | | | 1.7 | |
| 30 | 24 | 0 | | | | | | | | | - | 2.0 | |
| Total | BRO S | 820,000 | | | | | | | | | 3 | | |

1

Average 31,538.5 Maximum 360,000

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6284111 | Plant Name: | Crystal Lake Ch | ıb | |
|-----|--------------------------|--|-----------------------|-----------------|---|------|
| V.S | ummary of Use of Polyn | er Containing Acrylamide, Polymer C | ontaining Epichlo | rohydrin, and I | on or Manganese Sequestrant for the Year:* | 2021 |
| Α. | Is any polymer containin | ng the monomer acrylamide used at the wa | iter treatment plant' | ? 🗸 No | Yes, and the polymer dose and the acrylamide level in the polymer are as follows: | |



See page 4 for instructions.

| I. | General Informa | ation for | the Month | /Year of: | Novembe | er, 2021 | | | | | | | |
|----|------------------------|---------------------------------------|--------------|------------------|-----------------|-----------------------|---------------------|-------|---------------------------|-----------|-----------|-----------------------|-------|
| A. | Public Water Sys | stem (PV | VS) Informa | ation | | | | | | | | | |
| | PWS Name: | CITY (| OF AVON F | PARK | | | | | PWS Identification Num | ber: | 62800 |)49 | 18 |
| | PWS Type: | ✓ Comn | nunity | Non-Transien | nt Non-Communit | ty 🗌 T | Fransient Non-Comm | nunit | / Consecutiv | е | | | |
| | Number of Servi | ice Conne | ections at E | nd of Month: | 7037 | | Tota | al Po | pulation Served at End | of Month: | | 18561 | |
| | PWS Owner: | CITY (| OF AVON F | PARK | | | | | | | | | |
| | Contact Person: | Jonatha | n Delgado | | | | Con | tact | Person's Title: | Lead | Plant Ope | rator | |
| | Contact Person's | Mailing | Address: | 2504 U.S. | 27 SOUTH | | City | : | AVON PARK | State: | FL | Zip Code | 33825 |
| | Contact Person's | Telepho | one Number: | 863-443-1 | 806 | | Con | tact | Person's Fax Number: | 863-4 | 52-1078 | | |
| | Contact Person's | E-Mail | Address: | operator | avonpark.cc | 2 | | _ | | | | | |
| B. | Water Treatment | t Plant In | formation | | | | | | | | | | |
| | Plant Name: | BELL S | STREET W. | ATER PLANT | #1 | | (⁸ 2/3) | | Plant Telephone Number | : 863-4 | 43-1806 | (1) C | |
| | Plant Address: | 1350 W | . BELL ST | REET | | | City | : 5 | AVON PARK | State: | FL | Zip Code | 33825 |
| | Type of Water T | reated by | y Plant: | Raw Groun | d Water | Purchased | Finished Water | | | | | | |
| | Permitted Maxim | num Day | Operating (| Capacity of Plan | nt, gallons per | day: 5,30 | 0,000 | | | | | | |
| | Plant Category (p | per subse | ection 62-69 | 9.310(4), F.A.C | C.): 4 | and the second second | Plan | t Cl | ass (per subsection 62-69 | 9.310(4) | F.A.C.): | C | |
| | Licensed Opera | ators | | Name | | CONCERCIPACE | License Class | | License Number | | Da | ay(s)/Shift(s) Worked | |
| | Lead/Chief Operation | ator: | | Jonathan De | elgado | | C | | 20135 | | | 6 days per week | |
| | Other Operators: | Carlor B. | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | 1997 | | | | | | | | | | | |
| | | TRACE. | | | | | | | | | | | |
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| | | The second | | | | | | | | | | | |
| | S. P. S. S. S. | 192 | | | | | | | | | | | |
| | 19.00 10 / 20 | | | | | | | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555 900(3) Effective August 28, 2003 Jonathan Delgado Printed or Typed Name 20135 License Number

12/06/21

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| PWS Identification Number: 6280049 | | | | | | BELL STREET WATER PLANT #1 | | | | | | | |
|------------------------------------|-----------------------------|-----------------------|-----------------|--|---|-----------------------------------|----------|----------------|---|---------------------|--------------------|---|---|
| III. Da | ily Data f | or the Month | /Year of: | November, 202 | 1 | | | | | 31 | | | |
| Means | of Achievi aviolet Radia | ing Four-Log | Virus Inacti | ivation/Removal: Describe): | * 🖌 Free | Chlorine | | Chlorine Dio | xide [|] Ozone | Com | bine Chlorine (C | horamines) |
| Type o | f Disinfect | ant Residual M | Maintained | in Distribution S | ystem: | Free Chlorin | e | Combine | Chlorine (| Choramines) |) | Chlorine Dic | xide |
| | | and the second second | TI TALO | CT Calculations | or UV Dose, to I | Demonstrate F | our-Log | Virus Inactiva | ation, if Appl | licable* | | | A Report of Company of the |
| 1 | 1.75 2474 | Contraction of | | | CT Calcu | lations | | A STATE | | UV | Dose | | a la fai de |
| | | | The second | Lowest Residual Disinfectant Concentration (C) | Contact Time (T) at C Measurement | Provided Before or at First | Temp. | | Minimum | Lowest Operating | Minimum UV Dose | Lowest Residual Disinfectant Concentration at | |
| Day of | Hours Plant | Finished Water | Peak Flow | Customer During | Peak Flow | During | Water | Water if | Required | mW- | mW- | Distribution | Maintenance Work that Involves Taking Water System |
| Month | Operation | Produced gal | Rate, gpd | Peak Flow, mg/L | minutes | Peak Flow, | OC OC | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation |
| 1 | 24 | 1,913,000 | Contract Of the | | and the second second | | No marge | | ALC: NO. OF TAXABLE PARTY AND A DESCRIPTION OF TAXABLE PARTY. | | | 2.1 | |
| 2 | 24 | 1,392,000 | | | | | | | | | | 1.8 | |
| 3 | 24 | 971,000 | | | | | | | | | | 1.9 | |
| 4 | 24 | 1,355,000 | | | | | | | | | | 1.6 | |
| 5 | 24 | 1,473,000 | | | | | | | | | | 1.8 | |
| 6 | 24 | | | | | | | | | | | | |
| 7 | 24 | 2,805,000 | | | | | | | | | | 1.4 | |
| 8 | 24 | 1,103,000 | | | | | | | | | | 1.7 | |
| 9 | 24 | 1,182,000 | | | | | | | | | | 1.6 | |
| 10 | 24 | 1,644,000 | | | | | ľ Ý | | | | | 1.7 | |
| 11 | 24 | 10,110,000 | | | | | | | | | | 2.4 | |
| 12 | 24 | 1,358,000 | | | | | | | | | | 1.8 | |
| 13 | 24 | | | | | | | | | | | | |
| 14 | 24 | 2,548,000 | | | | | | | | | | 2.4 | |
| 15 | 24 | 1,261,000 | | | | | | | | _ | | 1.4 | |
| 16 | 24 | 1,232,000 | | | | | | | | | | 1.6 | |
| 17 | 24 | 1,722,000 | | | | | | | | | | 1.7 | |
| 18 | 24 | 1,292,000 | | | | | | | | | | 1.8 | |
| 19 | 24 | 1,497,000 | | | | | | | | | | 1.5 | |
| 20 | 24 | | | | | | | | | | | | |
| 21 | 24 | 2,427,000 | | | | | | 3 | | | | 1.2 | |
| 22 | 24 | 1,530,000 | | | | | | | | | | 1.0 | |
| 23 | 24 | 700,000 | | | | | | | | | | 1.1 | |
| 24 | 24 | 1,885,000 | | | | | | | | | | 1.3 | |
| 25 | 24 | 1,227,000 | | | | | | | | | | 1.4 | |
| 26 | 24 | 1,317,000 | | | | | | | | | | 1.1 | |
| 27 | 24 | | | | | | | | | | | | |
| 28 | 24 | 1,966,000 | | | | | | | | | - | 1.1 | |
| 29 | 24 | 1,077,000 | | | | | | | | - | | 1.7 | |
| 30 | 24 | 1,493,000 | | | | | | | | | | 2.0 | |
| - | - | | | | | | | | | | | 1.6 | |
| Total | and the second | 48,480,000 | | | | | | | | | | | |
| Average | | 1,864,615 | | | | | | | | | | | |

10,110,000

Maximum

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS | Identification Number: | 6280049 | Plant Nan | ne: 1 | BELL STREET | Γ WATER PLANT #1 | |
|--------|---|--|--|------------|---------------------------|---|------|
| IV. St | immary of Use of Poly | mer Containing Acrylam | ide, Polymer Containing | Epichlor | ohydrin, and l | Iron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | | | | | ✓ No | Yes, and the polymer dose and the acrylamide level in the polymer are as follow | v5: |
| | Polymer Dose, ppm= | | | | Acrylamide Lev | vel, $\%^{\dagger} =$ | |
| В. | Is any polymer contain are as follows: | ing the monomer epichloro | <u>hydrin</u> used at the water tr | eatment p | plant? 🗹 | No Yes, and the polymer dose and the epichlorohydrin level in the polymer | |
| | Polymer Dose, ppm= | | | 1 | Epichlorohydrii | n Level, $\%^{\dagger} =$ | |
| C. | Is any iron or mangane | ese sequestrant used at the | water treatment plant? | No | ✓ Yes, and | the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (p | olyphosphate or sodium si | icate): polyphos | phate | | | |
| | Sequestrant Dose, mg/ | L of phosphate as PO ₄ or n | ng/L of silicate as SiO ₂ = | | 1.25385 mg/l | L | |
| | If sodium silicate is us | ed, the amount of added pl | us naturally occurring silic | ate, in mg | g/L as SiO ₂ = | | |
| | It soutuit sincate is us | ed, the amount of added pr | as naturally occurring since | ate, in me | g/L as 510 ₂ | | - |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

* Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



B.

MONTHLY OPERATION REPORT FOR PWSs TREATING RAW GROUND WATER OR PURCHASED FINISHED WATER

See

| page 4 for instruc | ctions. | | | | | | | |
|--------------------|--|----------------------------------|---------|--------------------|---------|------------------------------|-------------------|--------|
| eneral Informat | tion for the Mon | th/Year of: December | r, 2021 | | | | | |
| Public Water Sys | tem (PWS) Inform | nation | | | | | | |
| WS Name: | CITY OF AVON | PARK | | | | PWS Identification Numb | er: 6280 | 049 |
| WS Type: | Community | Non-Transient Non-Communit | ΩY | Transient Non- | Commur | hity Consecutive | | |
| Number of Servic | e Connections at | End of Month: 7037 | | | Total | Population Served at End of | f Month: | |
| WS Owner: | CITY OF AVON | PARK | | | | | | |
| Contact Person: | Jonathan Delgado | 5 | | | Conta | ct Person's Title: | Lead Plant Op | erator |
| Contact Person's I | Mailing Address: | 2504 U.S. 27 SOUTH | | | City: | AVON PARK | State: FL | 1 |
| Contact Person's | Telephone Numbe | er: 863-443-1806 | | | Conta | ct Person's Fax Number: | 863-452-1078 | |
| Contact Person's I | E-Mail Address: | operator@avonpark.cc | ; | | - | | | |
| Vater Treatment | Plant Information | 1 | | | | | | |
| lant Name: | BELL STREET | WATER PLANT #1 | | | | Plant Telephone Number: | 863-443-1806 | |
| lant Address: | 1350 W. BELL S | TREET | | | City: | AVON PARK | State: FL | 12 |
| ype of Water Tr | eated by Plant: | Raw Ground Water | Purch | ased Finished Wate | er | | | |
| ermitted Maxim | um Day Operating | g Capacity of Plant, gallons per | day: | 5,300,000 | | | | |
| lant Category (p | er subsection 62-0 | 599.310(4), F.A.C.): 4 | | | Plant (| Class (per subsection 62-699 | 9.310(4), F.A.C.) | : (|
| Licensed Opera | tors | Name | | License Cla | ISS | License Number | D | ay(s)/ |
| ead/Chief Opera | tor: | Jonathan Delgado | | С | | 20135 | | 6 da |
| ther Operators: | and the second s | | | | | | | |
| | | | | | | | | |
| The state of the | Constant of the second | | | | | | | |
| No. State State | 1993 | | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date DEP Form 62-555,900(3) Effective August 28, 2003

01/07/22

Jonathan Delgado Printed or Typed Name

20135 License Number 18561

33825

33825

Zip Code

Zip Code

Day(s)/Shift(s) Worked 6 days per week

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Page 1

| PWSI | dentificatio | on Number: | 6280049 | | | 1 | | BELL ST | REET WA | TER PLA | NT #1 | | |
|------------------------|--------------------------------|--|------------------------|--|--|---|-----------------------------|----------------------------------|--|---|---|--|--|
| III. D | aily Data f | or the Month | /Year of: | December, 202 | 100-100 | | | | | | | | |
| Means | of Achiev | ing Four-Log | Virus Inact | ivation/Removal: | * 🖌 Free | Chlorine | | Chlorine Dio | xide | Ozone | Con | bine Chlorine (C | Choramines) |
| Ult | raviolet Radi | ation | Other (D | Describe): | | | | | | | | | |
| Type of | of Disinfect | ant Residual | Maintained | in Distribution S | ystem: 🔽 | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dic | vxide |
| 1 | Constant in the | | Par Seil | CT Calculations | , or UV Dose, to | Demonstrate | our-Log | Virus Inactiva | ation, if Appl | licable* | ine-delivery | | a the second second second |
| 1 | Rent | | ET STA | | CT Calcu | lations | | | | UV | Dose | | a many and the second states of the |
| Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Contact Time (T) at C Measurement Point During Peak Flow, minutes | Provided Before or at First Customer During Peak Flow, | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions; Repair or Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | 1,427,000 | | | | | | | | | | 1.9 | |
| 2 | 24 | 1,139,000 | | | | | | | | | | 1.9 | |
| 3 | 24 | 1,370,000 | | | | | | | | | | 1.7 | |
| 4 | 24 | | | | | | | | | | | | |
| 5 | 24 | 2,733,000 | | | | | | | | | | 2.3 | |
| 6 | 24 | 1,524,000 | | | | | | | | | | 1.9 | |
| 7 | 24 | 1,320,000 | | | | | | | | | | 1.9 | |
| 8 | 24 | 1,210,000 | | | | | 1 | | | | | 1.7 | |
| 9 | 24 | 1,445,000 | | | | | | | | 1 | | 1.5 | |
| 10 | 24 | 1,565,000 | | | | | | | | | | 1.7 | |
| 11 | 24 | | | | | | | | | | | | |
| 12 | 24 | 2,410,000 | | | | | | | | | | 1.8 | |
| 13 | 24 | 1,688,000 | | | | | | | | | | 1.4 | |
| 14 | 24 | 1,677,000 | | | | | | | | | | 1.7 | |
| 15 | 24 | 1,357,000 | | | | | | | | | | 1.7 | |
| 16 | 24 | 1,510,000 | | | | | | | | | | 2.4 | |
| 17 | 24 | 1,510,000 | | | | | | | | | | 1.9 | |
| 18 | 24 | | | | | | | | | | | | |
| 19 | 24 | 3,101,000 | | | | | | | | | | 1.5 | |
| 20 | 24 | 1,285,000 | | | | | | | | | | 2.3 | |
| 21 | 24 | 1,448,000 | _ | | | | | | | | | 2.0 | |
| 22 | 24 | 1,037,000 | | | | | | | | | | 1.8 | |
| 23 | 24 | 1,062,000 | | | | | 1 | | | | | 2.0 | |
| 24 | 24 | 1,095,000 | | | | | | * | | | | 1.8 | |
| 25 | 24 | λ | | | | | 1 | | | | | | |
| 26 | 24 | 2,493,000 | | | | | | | | | | 2.4 | |
| 27 | 24 | 899,000 | | | | | | | | | | 1.9 | |
| 28 | 24 | 1,180,000 | | | | | | | | | | 1.7 | |
| 29 | 24 | 1,183,000 | | | | | | _ | | | | 1.7 | |
| 30 | 24 | 1,032,000 | | | | | | | | | | 1.4 | |
| 31 | 24 | 1,136,000 | | | | _ | | | | | | 1.4 | |
| Total | Real Providence | 40,836,000 | | | | | | | | | | | |
| Maximun | 2 | 3 101 000 | | | | | | | | | | | |

* Refer to the instructions for this report to determine which plants must provide this information.

| PWS I | dentification Number: | 6280049 | Plant Name: | BELL STREET | WATER PLANT #1 | |
|--------|---|---|-------------------------|-------------------|--|------------|
| IV. Su | mmary of Use of Poly | mer Containing Acrylamide, Polym | er Containing Epichl | orohydrin, and | ron or Manganese Sequestrant for the Year:* | 2021 |
| Α. | | | | ✓ No | Yes, and the polymer dose and the acrylamide level in the polymer are as | s follows: |
| | Polymer Dose, ppm= | | | Acrylamide Lev | /el, % [†] = | |
| В. | Is any polymer contain are as follows: | ing the monomer epichlorohydrin use | d at the water treatmer | it plant? 🔽 | No Yes, and the polymer dose and the epichlorohydrin level in the polym | ner |
| | Polymer Dose, ppm= | | | Epichlorohydri | 1 Level, $\%^{\dagger} =$ | |
| C. | Is any iron or mangane | se sequestrant used at the water treatm | nent plant? | lo 🗸 Yes, and | the type of sequestrant, sequestrant dose, etc., are as follows: | |
| | Type of Sequestrant (p | olyphosphate or sodium silicate): | polyphosphate | | | |
| | Sequestrant Dose, mg/ | L of phosphate as PO4 or mg/L of silio | cate as $SiO_2 =$ | 1.38519 mg/l | | |
| | If sodium silicate is us | ed, the amount of added plus naturally | occurring silicate, in | mg/L as $SiO_2 =$ | | |
| | | | | | | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

† Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



| See page 4 for instructions. | | | | | | |
|------------------------------|---|--|----------------------------|--------------------|---------------------|--------|
| I. General Information for | the Month/Year of: December, 2021 | Le contra de la co | | | | |
| A. Public Water System (PV | VS) Information | | | | | |
| PWS Name: CITY C | OF AVON PARK | | PWS Identification Num | ber: 62800 | 49 | |
| PWS Type: 🗸 Comm | nunity Non-Transient Non-Community | Transient Non-Communi | ty Consecutive | 3 | | |
| Number of Service Conne | ections at End of Month: 7037 | Total P | opulation Served at End o | of Month: | 18561 | |
| PWS Owner: CITY C |)F AVON PARK | | | | | |
| Contact Person: Jonatha | n Delgado | Contact | Person's Title: | Lead Plant Oper | ator | |
| Contact Person's Mailing | Address: 2504 U.S. 27 SOUTH | City: | AVON PARK . | State: FL | Zip Code: | 33825 |
| Contact Person's Telepho | ne Number: 863-443-1806 | Contact | Person's Fax Number: | 863-452-1078 | | |
| Contact Person's E-Mail | Address: operator@avonpark.cc | | | | | |
| B. Water Treatment Plant In | formation | | | | | |
| Plant Name: GLENV | WOOD WATER PLANT #2 | | Plant Telephone Number | : 863-443-1806 | | |
| Plant Address: 100 S. 0 | GLENWOOD AVENUE | City: | AVON PARK | State: FL | Zip Code: | 33825 |
| Type of Water Treated by | / Plant: 🛛 Raw Ground Water 🗌 Pu | rchased Finished Water | | | | |
| Permitted Maximum Day | Operating Capacity of Plant, gallons per day: | 1,700,000 | | | | 6. |
| Plant Category (per subse | ction 62-699.310(4), F.A.C.): 5 | Plant C | lass (per subsection 62-69 | 9.310(4), F.A.C.): | С | |
| Licensed Operators | Name | License Class | License Number | Day | (s)/Shift(s) Worked | |
| Lead Operator: | Jonathan Delgado | С | 20135 | | 6 days per week | |
| Other Operators: | | | | | | |
| | | | | | | |
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| Contraction and and and | | | | | | |
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| and the second second second | | | | | | |
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II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

gnature and Date

01/07/22 Jonathan Delgado

Printed or Typed Name

20135 License Number

DEP Form 62-555,900(3) Effective August 28, 2003

Page 1

| PWS | dentificatio | on Number: | 6280049 | | | Plant Nan | ne: | GLENWO | DOD WAT | TER PLAN | VT #2 | | |
|------------|---------------|-----------------|--------------------|--|---|---|-------------|---------------|---------------|---------------------------------|---------------------------------|--|---|
| III. D | aily Data f | or the Month | /Year of: | December, 202 | 1 | | | | | | | | |
| Means | of Achiev | ing Four-Log | Virus Inact | ivation/Removal | * / Free | Chlorine | | Chlorine Dio | xide | Ozone | Con | bine Chlorine (C | Choramines) |
| Ult | raviolet Radi | iation | Other ([| Describe): | - | | _ | | Te. | | | | |
| Type of | of Disinfect | tant Residual | Maintained | in Distribution S | ystem: | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Did | oxide |
| toria Part | | ACCESTAL. | 1 2 mg 2 mg | CT Calculations | , or UV Dose, to | Demonstrate | Four-Log | Virus Inactiv | ation, if App | licable* | | (Sales) | |
| 1-12 | 278.57 | DES TON | Child Party of the | | CT Calcu | alations | | | | UV | Dose | 13. 5261 | the second stand |
| Day of | Hours Plant | Net Quantity of | | Lowest Residual Disinfectant Concentration (C) Before or at First | Contact Time (T) at C Measurement Point During | Provided Before or at First Customer | Temp. of | pH of | Minimum CT | Lowest Operating UV Dose, | Minimum UV Dose Required, | Lowest Residual Disinfectant Concentration at Remote Point in | Emergency or Abnormal Operating Conditions; Repair or |
| the | in | Finished Water | Peak Flow | Customer During | Peak Flow, | During Deek Flow | Water, | Water, if | Required, | mW- | mW- | Distribution | Maintenance Work that Involves Taking Water System |
| Month | Operation | Produced, gal | Kate, gpd | Peak Flow, mg/L | minutes | Peak Flow, | oc | Applicable | mg-min/L | sec/cm2 | sec/cm2 | System, mg/L | Components Out of Operation |
| 1 | 24 | 620,000 | | | | | | | | | | 2.1 | |
| 2 | 24 | 734,000 | | | | | - | | | | | 1.9 | |
| 3 | 24 | 715,000 | | | | | - | | | | | 2.1 | |
| 4 | 24 | 1 | | | | _ | | | | | | | |
| 5 | 24 | 1,534,000 | | | | | | | | | | 1.6 | |
| 6 | 24 | 665,000 | | | | | | | | | | 2.0 | |
| 7 | 24 | 671,000 | | | | | | | | | | 1.9 | |
| 8 | 24 | 650,000 | | | | | | | | | | 1.9 | |
| 9 | 24 | 639,000 | | | | | | | | | | 2.0 | |
| 10 | 24 | 699,000 | | | | | | | | | | 2.0 | |
| 11 | 24 | | | | | | | | | | | | |
| 12 | 24 | 1,231,000 | | | | | | | | | | 2.0 | |
| 13 | 24 | 998,000 | | | | | | | | | | 2.0 | |
| 14 | 24 | 622,000 | | | | | | | | | | 1.7 | |
| 15 | 24 | 686,000 | | | | | | | | | | 1.9 | |
| 16 | 24 | 669,000 | | | 1 | | | | | | | 2.6 | |
| 17 | 24 | 564,000 | | | | | | | | | | 2.3 | |
| 18 | 24 | | | | | | | | | | | | |
| 19 | 24 | 1 649 000 | | | | | | | | | | 21 | |
| 20 | 24 | 558 000 | | | | | | | | | | 23 | |
| 21 | 24 | 727,000 | - | | - | | | - | | | | 2.5 | |
| 21 | 24 | 606,000 | - | | and the second second | | | | | | | 2.4 | |
| 22 | 24 | 010,000 | | | | | | - | | | | 2.4 | |
| 20 | 24 | 919,000 | | | | | | | - | | | 2.5 | |
| 24 | 24 | 871,000 | | | | | | | | | | 2.0 | |
| 25 | 24 | 2.071.000 | | | | | | | | | | 2.0 | |
| 20 | 24 | 2,074,000 | | | | | | | | | | 2.0 | |
| - 21 | 24 | 679,000 | | | | | | | | | | 1.9 | |
| 28 | 24 | 901,000 | | | | | | | | | | 1.7 | |
| 29 | 24 | 928,000 | | | | | | | | | | 1.9 | |
| 30 | 24 | 872,000 | | | | | | | | | | 2.1 | |
| 31 | 24 | 901,000 | | | | | | | L | | | 2.0 | |
| Total | | 23,472,000 | | | | | | | | | | | |
| Maximur | n | 2 074 000 | | | | | | | | | | | |

* Refer to the instructions for this report to determine which plants must provide this information.

| IV Com | | | |
|---------|--|---|------|
| Iv. Sun | nmary of Use of Polymer Containing Acrylamide, Polymer Containing Epicl | lorohydrin, and Iron or Manganese Sequestrant for the Year:* | 2021 |
| A. 1 | s any polymer containing the monomer acrylamide used at the water treatment pl | ant? Vo Yes, and the polymer dose and the acrylamide level in the polymer are as follows: | |
| I | Polymer Dose, ppm= | Acrylamide Level, $\%^{\dagger} =$ | |
| B. I | s any polymer containing the monomer <u>epichlorohydrin</u> used at the water treatme are as follows: | ent plant? No See, and the polymer dose and the epichlorohydrin level in the polymer | |
| F | Polymer Dose, ppm= | Epichlorohydrin Level, % [†] = | |
| C. 1 | s any iron or manganese sequestrant used at the water treatment plant? | No Ves, and the type of sequestrant, sequestrant dose, etc., are as follows: | |
| 1 | Type of Sequestrant (polyphosphate or sodium silicate): | | |
| S | Sequestrant Dose, mg/L of phosphate as PO_4 or mg/L of silicate as $SiO_2 =$ | 2.14615 mg/L | |
| 1 | f sodium silicate is used, the amount of added plus naturally occurring silicate, ir | mg/L as SiO ₂ = | |

* Complete and submit Part IV of this report only with the monthly operation report for December of each Year and only for water treatment plants using polymer containing acrylamide, polymer containing epichlorohydrin, and/or an iron and manganese sequestrant.

† Acrylamide and epichlorohydrin levels may be based on the polymer manufacturer's certification or on third-party certification.



1 0

MONTHLY OPERATION REPORT FOR PWSs TREATING RAW GROUND WATER OR PURCHASED FINISHED WATER

| see page 4 for instructions. | | | | | | |
|-------------------------------------|---|--------------------------|------------------------------|---------------------|-----------------------|-------|
| I. General Information for the M | Ionth/Year of: December, 202 | 21 | | | | |
| A. Public Water System (PWS) In | formation | | | | | |
| PWS Name: CRYSTAL L | AKE WATER PLANT #7 | | PWS Identification Nur | nber: 62800 | 049 | |
| PWS Type: 🗹 Community | Non-Transient Non-Community | Transient Non-Comn | nunity Consecutiv | ve | | |
| Number of Service Connections | s at End of Month: 506 | Tot | al Population Served at End | of Month: | 800 | |
| PWS Owner: CITY OF AV | ON PARK | | | | | |
| Contact Person: Jonathan Dels | gado | Cor | tact Person's Title: | Lead Plant Ope | erator | |
| Contact Person's Mailing Addre | ess: 2504 U.S. 27 SOUTH | City | : AVON PARK | State: FL | Zip Code: | 33825 |
| Contact Person's Telephone Nu | mber: 863-443-1806 | Cor | tact Person's Fax Number: | 863-452-1078 | | |
| Contact Person's E-Mail Addres | ss: operator@avonpark.cc | | | | | 2 |
| B. Water Treatment Plant Informa | tion | | | | | |
| Plant Name: CRYSTAL L | AKE WATER PLANT #7 | | Plant Telephone Numbe | er: 863-443-1806 | | |
| Plant Address: | | City | : AVON PARK | State: FL | Zip Code: | 33825 |
| Type of Water Treated by Plant | t: 🔄 Raw Ground Water 🔄 P | Purchased Finished Water | | | | |
| Permitted Maximum Day Opera | ating Capacity of Plant, gallons per day: | 500,000 | | | | |
| Plant Category (per subsection | 62-699.310(4), F.A.C.): 5 | Plan | t Class (per subsection 62-6 | 99.310(4), F.A.C.): | С | |
| Licensed Operators | Name | License Class | License Number | Da | ay(s)/Shift(s) Worked | |
| Lead/Chief Operator: | Jonathan Delgado | C | 20135 | | 6 days per week | |
| Other Operators: | | | | | | |
| | | | | | | |
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| and the second second second second | | | | | | |

II. Certification by Lead/Chief Operator

I, the undersigned water treatment plant operator licensed in Florida, am the lead/chief operator of the water treatment plant identified in Part I of this report. I certify that the information provided in this report is true and accurate to the best of my knowledge and belief. I certify that all drinking water treatment chemicals used at this plant conform to NSF International Standard 60 or other applicable standards referenced in subsection 62-555.320(3), F.A.C. I also certify that the following additional operations records for this plant were prepared each day that a licensed operator staffed or visited this plant during the month indicated above: (1) records of amounts of chemicals used and chemical feed rates; and (2) if applicable, appropriate treatment process performance records. Furthermore, I agree to retain these additional operations records at the plant site for at least ten years and to make them available for review upon request.

Signature and Date

01/07/22 Jonathan Delgado

Printed or Typed Name

20135 License Number

DEP Form 62-555 900(3) Effective August 28, 2003

| PWS | dentificatio | on Number: | 6284111 | 4 | | Plant Nan | ne: | Crystal La | ake Club | | | | |
|------------------------|--------------------------------|--|------------------------|--|---|--|-----------------------------|----------------------------------|--|---|---|--|---|
| II. D | aily Data f | or the Month | /Year of: | December, 2021 | | | | | | | | | |
| | of Achiev raviolet Radi | ing Four-Log ' ation | Virus Inacti | vation/Removal: Describe): | * 🗌 Free | Chlorine | | Chlorine Dio | xide L | Ozone | Con | bine Chlorine (C | horamines) |
| ype o | of Disinfect | ant Residual N | Maintained | in Distribution Sy | /stem: | Free Chlorin | e | Combine | e Chlorine (| Choramines |) | Chlorine Dio | xide |
| | 14.792.90 | 14220 5.24 | Sec. Sec. | CT Calculations, | or UV Dose, to | Demonstrate I | Four-Log | Virus Inactiv | ation, if App | icable* | 1000 | 1 the states | The second card of the second |
| | Mar Shi | -1 23. Th | | | CT Calcu | lations | 199921111111111 | and and are | (TOUGH | UV | Dose | | |
| Day of the Month | Hours Plant in Operation | Net Quantity of Finished Water Produced, gal | Peak Flow Rate, gpd | Lowest Residual Disinfectant Concentration (C) Before or at First Customer During Peak Flow, mg/L | Disinfectant Contact Time (T) at C Measurement Point During Peak Flow, | Lowest CT Provided Before or at First Customer During | Temp. of Water, OC | pH of Water, if Applicable | Minimum CT Required, mg-min/L | Lowest Operating UV Dose, mW- sec/cm2 | Minimum UV Dose Required, mW- sec/cm2 | Lowest Residual Disinfectant Concentration at Remote Point in Distribution System, mg/L | Emergency or Abnormal Operating Conditions; Repair o Maintenance Work that Involves Taking Water System Components Out of Operation |
| 1 | 24 | 20,000 | | | | | | | | | | 1.9 | |
| 2 | 24 | 31,000 | | | | | | | | | | 2.0 | |
| 3 | 24 | 18,000 | | | | | | | | | | 2.0 | |
| 4 | 24 | | | | | | | | | | | | |
| 5 | 24 | 54,000 | | | | | | | | | | 2.0 | |
| 6 | 24 | 83,000 | | | | | | | | | | 2.0 | |
| 7 | 24 | 45,000 | | | | | | | | | | 2.0 | |
| 8 | 24 | 25,000 | | | | | | | | | | 2.0 | |
| 9 | 24 | 28,000 | | | | | | | | | | 2 | |
| 10 | 24 | 47,000 | | | | | | | | | | 2.0 | |
| 11 | 24 | | | | | | 1 million 1 | | | | | | |
| 12 | 24 | 78,000 | | | | | | | | | | 2.0 | |
| 13 | 24 | 24,000 | | | | | - | | | | | 2,0 | |
| 14 | 24 | 40,000 | | | | | | - | | | | 2.0 | |
| 15 | 24 | 56,000 | | | | | | | | | | 2.0 | |
| 16 | 24 | 23,000 | | | | | | | | | | 2.0 | |
| 17 | 24 | 32,000 | | | | | | | | | - | 2.0 | |
| 18 | 24 | | - | | | | - | | | | | 2.0 | and the second second second second second |
| 19 | 24 | 64,000 | | | | | | | | | | 2.0 | |
| 20 | 24 | 35,000 | | | | | | | | | | 2.0 | |
| 21 | 24 | 28,000 | | | | | | | | | | 2.0 | |
| 22 | 24 | 0 | | | | | - | | | | | 1.0 | |
| 20 | 24 | 0 | | | | | | | | | | 1.0 | |
| 24 | 24 | 0 | | | | | - | | | | | 1.0 | |
| 26 | 24 | 0 | | | | | | | - | | | 1.8 | |
| 27 | 24 | 0 | | | | | | | | - | | 11 | |
| 28 | 24 | 0 | | | | | | | | | | 13 | |
| 29 | 24 | 3 000 | | | | | - | | | | | 18 | |
| 30 | 24 | 24 000 | | | | | - | | | | | 1.8 | |
| | 24 | 23,000 | | | | | | | | | | 1.6 | |
| al | and a second | 781,000 | | I | | | | | | | | 1.0 | |
| | - | 28 025 0 | | | | | | | | | | | |

Maximum 83,000

* Refer to the instructions for this report to determine which plants must provide this information.

PWS Identification Number: 6284111 Crystal Lake Club Plant Name: IV. Summary of Use of Polymer Containing Acrylamide, Polymer Containing Epichlorohydrin, and Iron or Manganese Sequestrant for the Year:* 2021 V No

A. Is any polymer containing the monomer acrylamide used at the water treatment plant?

Yes, and the polymer dose and the acrylamide level in the polymer are as follows:

1



APPENDIX C: Capital Improvement Projects – Opinion of Probable Cost

ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST

FOR

The City of Avon Park

Water Improvement No. 1: Development Based 8" and 12" Water Main Transmission Line Extensions and Looping of System

| PROJECT # | DESCRIPTION | UNIT | QUANTITY | UNI | IT PRICE | AMOUNT | |
|---|--|------|----------|-----|-----------|--------|-----------|
| 1 | Development based 8" and 12" water main transmission line extensions and looping of system | LS | 1 | \$ | 4,961,000 | \$ | 4,961,000 |
| SUBTOTAL | | | | | | \$ | 4,961,000 |
| SURVEY, DESIGN AND PERMITTING (15%) | | | | | | \$ | 744,150 |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | \$ | 496,100 |
| CONTINGENCY (30%) | | | | | | \$ | 1,488,300 |
| ΤΟΤΑΙ | | | | | | \$ | 7,689,550 |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs. | | | | | | | |
FOR

The City of Avon Park

Water Improvement No. 2: Upsize 2" and 4" Water Mains in Avon Park Lakes Area and 8" Loop

| PROJECT # | DESCRIPTION | UNIT | QUANTITY | UN | | | AMOUNT | | |
|---|--|------|----------|----|-----------|----|-----------|--|--|
| 2 | Upsizing of multiple 2" and 4" water mains in Avon Park Lakes Area to 6" water mains and 8" loop on the north end. | LS | 1 | \$ | 3,117,000 | \$ | 3,117,000 | | |
| | | | | | | \$ | 3,117,000 | | |
| SURVEY, DESIGN AND PERMITTING (15% | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | | | | |
| CONTINGENCY (30% | | | | | | | | | |
| τοτα | | | | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that bids, or actual construction costs will not vary from its opinions of probable costs. | | | | | | | | | |

FOR

The City of Avon Park

Water Improvement No. 3: Lake Damon Looping and Upsizing

| PROJECT # | DESCRIPTION | UNIT | QUANTITY | U | NIT PRICE | | AMOUNT | | | |
|---|--|------|----------|----|-----------|----|-----------|--|--|--|
| 3 | Installation of a 6" water main along Sun Pure Rd and upsizing of multiple water mains to 6" | LS | 1 | \$ | 1,434,000 | \$ | 1,434,000 | | | |
| | | | | | SUBTOTAL | \$ | 1,434,000 | | | |
| SURVEY, DESIGN AND PERMITTING (15%) | | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | | | | | |
| CONTINGENCY (30%) | | | | | | | | | | |
| TOTAL | | | | | | | | | | |
| Note: Fire hydrants not included. Cost included in improvement 11. | | | | | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are | | | | | | | | | | |
| | based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs. | | | | | | | | | |

FOR

The City of Avon Park

Water Improvement No. 4: E Cornell St Loop

| PROJECT # | DESCRIPTION | UNIT | QUANTITY UNIT PRICE | | | AMOUNT | | | |
|---|---|------|---------------------|-----------|------|--------|--|--|--|
| 4 | 8" water main connection near the intersection of E Cornell St and County Road 17A N and 6" water main for looping. | LS | 1 | \$ 56,000 | \$ | 56,000 | | | |
| | | | | SUBTOTAL | . \$ | 56,000 | | | |
| SURVEY, DESIGN AND PERMITTING (20% | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | | | | |
| CONTINGENCY (30% | | | | | | | | | |
| TOTAL | | | | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that bids, or actual construction costs will not vary from its opinions of probable costs. | | | | | | | | | |

FOR

The City of Avon Park

Water Improvement No. 5: US 27N Water Main Upsize

| PROJECT # | DESCRIPTION | UNIT | QUANTITY | UN | NIT PRICE | | AMOUNT | | |
|---|--|------|----------|----|-----------|----|---------|--|--|
| 5 | The upsizing of the water main that runs along US 27N near the south extent of the city from 8" to 12" | LS | 1 | \$ | 827,000 | \$ | 827,000 | | |
| | | | | | SUBTOTAL | \$ | 827,000 | | |
| SURVEY, DESIGN AND PERMITTING (15%) | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | | | | |
| CONTINGENCY (30%) | | | | | | | | | |
| TOTAL | | | | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that bids, or actual construction costs will not vary from its opinions of probable costs. | | | | | | | | | |

FOR

The City of Avon Park

Water Improvement No. 6: State Road 64 Water Main Upsize

| PROJECT # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | | AMOUNT | | | |
|---|--|------|----------|--------------|----|-----------|--|--|--|
| 6 | The upsizing of the water main that runs along State Road 64 near the Avon Park Executive Airport from 6" to 12" | LS | 1 | \$ 1,323,000 | \$ | 1,323,000 | | | |
| SUBTOTA | | | | | | | | | |
| SURVEY, DESIGN AND PERMITTING (15% | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | | | | |
| CONTINGENCY (30%) | | | | | | | | | |
| TOTAL | | | | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided hereir based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proportion bids, or actual construction costs will not vary from its opinions of probable costs. | | | | | | | | | |

FOR

The City of Avon Park

Water Improvement No. 7: South Florida State College Water Main Upsize

| PROJECT # | DESCRIPTION | UNIT | QUANTITY | UN | NIT PRICE | | AMOUNT | | | |
|------------------------------------|---|------|----------|----|-----------|----|---------|--|--|--|
| 7 | The upsizing of 6" segments of water mains to 8" throughout the South Florida State College Campus | LS | 1 | \$ | 819,000 | \$ | 819,000 | | | |
| SUBTOTA | | | | | | | | | | |
| SURVEY, DESIGN AND PERMITTING (15% | | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | | | | | |
| CONTINGENCY (30%) | | | | | | | | | | |
| TOTAL | | | | | | | | | | |
| The Engine are base | The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs. | | | | | | | | | |

FOR

The City of Avon Park

Water Improvement No. 8: Upsize 3" and 4" Water Mains and Looping Near Valerie Blvd

| PROJECT # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | | AMOUNT | | |
|--|--|------|----------|--------------|----|-----------|--|--|
| 8 | Upsize 3" and 4" water mains along Valerie Blvd and loop system by connecting to the 8" water main that runs along Panther Parkway | LS | 1 | \$ 3,334,000 | \$ | 3,334,000 | | |
| | | | | SUBTOTA | \$ | 3,334,000 | | |
| SURVEY, DESIGN AND PERMITTING (15% | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | | | |
| CONTINGENCY (30%) | | | | | | | | |
| TOTAL | | | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based | | | | | | | | |
| on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs. | | | | | | | | |

FOR

The City of Avon Park

Water Improvement No. 9: Deer Lake Looping and Upsizing

| PROJECT # | DESCRIPTION | UNIT QUANTITY UNIT PRICE | | QUANTITY UNIT PRICE | | | | | |
|--|---|--------------------------|---|---------------------|----|-------------|--|--|--|
| 9 | 8" water main along E Albritton Rd and the upsizing of 2" water mains near Deer Lake. | LS | 1 | \$ 953,00 |)0 | \$ 953,000 | | | |
| SUBTOTA | | | | | | | | | |
| SURVEY, DESIGN AND PERMITTING (15%) | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | | | | |
| | | | (| CONTINGENCY (30 | %) | \$ 285,90 | | | |
| | | | | тот | AL | \$ 1,477,15 | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided here the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, l construction costs will not vary from its opinions of probable costs. | | | | | | | | | |

FOR

The City of Avon Park Water Improvement No. 10: Crystal Lake Club Pressure Control Valve

| 10 The installation of an 8" pressure control valve where the existing 8" water main ties into Crystal Lake Club Area LS 1 \$ 37,000 \$ 3 10 The installation of an 8" pressure control valve where the existing 8" water main ties into Crystal Lake Club Area LS 1 \$ 37,000 \$ 3 10 The installation of an 8" pressure control valve where the existing 8" water main ties into Crystal Lake Club Area LS 1 \$ 37,000 \$ 3 10 CONTINGENCY (30%) S CONTINGENCY (30%) \$ 5 1 \$ 5 1 \$ 5 | PROJECT # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | | AMOUNT | | |
|---|---------------------------------|--|------|----------|------------|------|--------|--|--|
| SUBTOTAL \$< | 10 | The installation of an 8" pressure control valve where the existing 8" water main ties into Crystal Lake Club Area | LS | 1 | \$ 37,000 | \$ | 37,000 | | |
| CONTINGENCY (30%) \$ 1 Total \$ 1 The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the formation of the second state of the | SUBTOT | | | | | | | | |
| TOTAL \$ 4 | CONTINGENCY (30%) | | | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on | | | | | TOTAL | . \$ | 48,100 | | |
| costs will not vary from its opinions of probable costs. | based on the 1l construction | | | | | | | | |

FOR

The City of Avon Park

Water Improvement No. 11: Installation of Additional Fire Hydrants Throughout System and Associated Pipe Upsizes

| PROJECT # | DESCRIPTION | UNIT | QUANTITY | U | NIT PRICE | | AMOUNT | | | |
|------------------------------------|---|------|----------|----|-----------|----|-----------|--|--|--|
| 11 | The addition of fire hydrants and improvements to the City system where fire protection does not meet the City's Standards | LS | 1 | \$ | 8,439,000 | \$ | 8,439,000 | | | |
| | | | | | SUBTOTAL | \$ | 8,439,000 | | | |
| SURVEY, DESIGN AND PERMITTING (15% | | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | | | | | |
| CONTINGENCY (30%) | | | | | | | | | | |
| TOTAL | | | | | | | | | | |
| The Engin are base | The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs. | | | | | | | | | |

FOR

The City of Avon Park

Water Improvement No. 12: Little Red Water Lake Looping

| PROJECT # | DESCRIPTION | UNIT | QUANTITY | UN | NIT PRICE | | AMOUNT | | |
|--|--|------|----------|--------|-------------|----|---------|--|--|
| 12 | The Installation of a 6" water main along Panther Parkway to loop the City Water System. | LS | 1 | \$ | 225,000 | \$ | 225,000 | | |
| | | | | | SUBTOTAL | \$ | 225,000 | | |
| SURVEY, DESIGN AND PERMITTING (15%) | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | | | | |
| | | | С | ONTING | GENCY (30%) | \$ | 67,500 | | |
| TOTAL | | | | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs pr are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not gu proposals, bids, or actual construction costs will not vary from its opinions of probable costs. | | | | | | | | | |

FOR

The City of Avon Park

Water Improvement No. 13: Glenwood Avenue WTP Pump Upgrades

| PROJECT # | DESCRIPTION | UNIT | AMOUNT | | | | |
|-------------------------------------|--|------|--------|------------|----|---------|--|
| 13 | Addition of a third pump at the Glenwood Ave WTP and electrical and piping modifications | LS | 1 | \$ 186,000 | \$ | 186,000 | |
| SUBTOTAI | | | | | | | |
| SURVEY, DESIGN AND PERMITTING (15%) | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | | |
| CONTINGENCY (30%) | | | | | | | |
| ΤΟΤΑ | | | | | | | |
| - | | | | | | | |

FOR

The City of Avon Park

Water Improvement No. 14: Bell Street WTP Pump Upgrades

| PROJECT # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | | AMOUNT |
|-------------------|--|------|----------|------------|----|---------|
| 14 | Upsizing of 2 pumps at the Bell Street WTP and electrical and piping modifications | LS | 1 | \$ 381,000 | \$ | 381,000 |
| SUBTOTAL | | | | | | 381,000 |
| | SURVEY, DESIGN AND PERMITTING (15%) | | | | | |
| | CONSTRUCTION ADMINISTRATION (10%) | | | | | 38,100 |
| CONTINGENCY (30%) | | | | | | 114,300 |
| TOTAL | | | | | | 600,000 |
| | | | | | - | |

FOR

The City of Avon Park

Water Improvement No. 15: Wilhite St Upsize

| PROJECT # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | | AMOUNT |
|------------------|--|------|----------|------------|----|---------|
| 15 | Upsizing of water main along Wilhite St and S Lake Ave from a 6" to 8" | LS | 1 | \$ 464,000 | \$ | 464,000 |
| SUBTOTAL | | | | | | 464,000 |
| | SURVEY, DESIGN AND PERMITTING (15%) | | | | | |
| | CONSTRUCTION ADMINISTRATION (10%) | | | | | |
| CONTINGENCY (30% | | | | | | 139,200 |
| TOTAI | | | | | | 720,000 |
| | | | | | | |

FOR

The City of Avon Park

Water Improvement No. 16: Glenwood Avenue WTP Discharge Pipe Upgrades

| PROJECT # | DESCRIPTION | | QUANTITY | UNIT PRICE | | AMOUNT |
|-------------------|---|----|----------|------------|----|--------|
| 16 | Upsizing of 6" water main along Shaw St to 12" water main | LS | 1 | \$ 21,000 | \$ | 21,000 |
| SUBTOTAL | | | | | | 21,000 |
| | SURVEY, DESIGN AND PERMITTING (25%) | | | | | 5,000 |
| | CONSTRUCTION ADMINISTRATION (10%) | | | | | 2,100 |
| CONTINGENCY (30%) | | | | | | 6,300 |
| TOTAL | | | | | | 40,000 |
| | | | | | | |

FOR

The City of Avon Park

Water Improvement No. 17: Bell Street WTP Discharge Pipe Upgrades

| PROJECT # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | | AMOUNT |
|-----------------------------------|---|------|-------------------|------------------|----|---------|
| 17 | Upsizing of water main discharging from the plant from a 16" to 20" | LS | 1 | \$ 112,000 | \$ | 112,000 |
| SUBTOTAL | | | | | | 112,000 |
| | | S | URVEY, DESIGN AND | PERMITTING (15%) | \$ | 17,000 |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | 11,200 |
| CONTINGENCY (30%) | | | | | | 33,600 |
| | | | | TOTAL | \$ | 180,000 |
| | | | | | | |



CITY OF AVON PARK

Wastewater Master Utility Plan

Prepared for



Prepared by

Kimley » Horn

CITY OF AVON PARK

Wastewater Master Utility Plan

THIS IS TO CERTIFY THAT THE ENCLOSED ENGINEERING CALCULATIONS WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

Jamison R. Tondreault, PE Florida Registration Number 84396 Kimley-Horn Registry No. 696

Prepared for

Date:



AVON PARK The City of Charm

Prepared by

Kimley » Horn

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EXECUTIVE SUMMARY

The primary objective of this report is to identify capacity limitations within the wastewater system and to provide recommended improvements to meet future demands in the City of Avon Park's wastewater service area. The intent of this wastewater master plan is to provide the City with guidance in both identifying and prioritizing future improvements and Capital Improvement Plan (CIP) projects necessary to meet the projected demands of the City's wastewater collection system. The primary scope elements of this Wastewater Master Utility Plan report are as follows:

- 1. Create and calibrate a SewerCAD hydraulic model of the City's wastewater service area that consists of the wastewater conveyance system, which includes lift stations, force mains, and segments of gravity sewer that receive pumped wastewater flow from City lift stations.
- 2. Analyze existing and future (5-year, 10-year, 20-year) system demands placed on the wastewater conveyance system.
- 3. Perform draw down tests at each lift station.
- 4. Identify capacity limitations.
- 5. Recommend system improvements for present-day, 5-year, 10-year, and 20-year planning horizons based on the calibrated model.

The analysis presented herein is based on the following assumptions and should be updated as conditions change with time:

- SewerCAD Model scenarios were evaluated under extended period simulation conditions. This simulation requires the wet well diameter, pump operating ranges, peak inflows into the wet well, and pump selection. Extended period simulation allows for a better analysis of the multiple lift stations that contribute to a force main via manifold. This analysis provides for more realistic results than steady state conditions, which typically assumes all lift stations are on at once.
- 2. When evaluating and recommending proposed improvements to the system, the 20-year projected peak hour flows were considered.
- 3. When manhole invert elevations and/or gravity slopes were not available, 10 State Standards minimum slopes were used when evaluating the gravity sewer and estimating the capacity. Only gravity segments that receive pumped wastewater flow from City lift stations were evaluated for capacity.
- 4. The following hydraulic parameters were used to evaluate the model for deficiencies:

Lift Stations – Identified as not having capacity if the primary duty pump(s) could not pump estimated peak hour flows and/or meet the pressures in the system which would result in adverse impacts to the lift station (ex. Possible Overflow).

Force Mains – Identified as not having capacity if velocities exceeded 8.0 feet per second (fps) and pressures that exceeded one-half of the force main pipe pressure rating. Since the pressure rating of the force mains was unknown, a conservative assumption of DR-25 (165 PSI) pipe was assumed.

Gravity Sewer – Identified as not having capacity if the max flow in the model exceeded the capacity of the gravity sewer. A manning's friction coefficient of 0.013 was utilized in the model.

This current master utility plan projects the wastewater flows to be approximately 1.86 MGD at year 2042 utilizing SWFWMD/BEBR population projections and known future developments which doubles the current day demands of 0.84 MGD (2021).

To meet the objectives of the Wastewater Master Utility Plan, hydraulic models of the City's wastewater conveyance system was constructed and calibrated utilizing SewerCAD, respectively. The wastewater hydraulic model consisted of the City's lift stations, force mains, and gravity segments that received pumped flow from City lift stations. Calibration of the model was performed using lift station drawdown test data, runtime data, and pump manufacturer data that was provided by the City. The existing system wastewater flows were developed from the City's wastewater treatment plant (WWTP) flows and from the City's water billing data. Flow projections were then developed for the 5, 10, and 20-year scenarios utilizing the City Southwest Florida Water Management District/BEBR population projections and known developments for Avon Park. The calibrated model was then used to identify capital improvement projects (i.e. force main upgrades and lift station improvements) that are needed to meet the projected demands of the City's existing, 5-year, 10-year, and 20-year wastewater system. These improvements. **Appendix A** provides a map and an opinion of probable cost in today's dollars for each recommended improvement. The following improvements were identified for each planning period:

EXISTING SYSTEM DEMANDS (2022) –Kimley-Horn coordinated with the City on a list of improvements including lift station rehabilitation and generator installations due to aging infrastructure and backup power. These improvements were identified as Improvements **No.1A** through **1B** and are generally described below:

- **Improvement No.1A** considers rehabilitation of Lift Station #8 to replace the pumps, piping, and valve vault that are in poor condition. In addition, cleaning and coating or lining the wet well.
- **Improvements No.1B** considers installing generators at three lift stations to provide emergency backup power. These stations receive flows from other lift stations.

A condition assessment for gravity sewer and force mains was not included as part of this master plan and is recommended due to the known aging of the collection system.

This existing demand scenario modeled the City's wastewater conveyance system with existing (2021) peak hour flows. The model results identified two (2) force mains that were not meeting a cleansing velocity of 2.0 fps. In addition, calculated peak flows exceeded the pumping capacity of Lake Tulane's Lift Station. The City desires to relocate Lake Tulane's Lift Station (LS #18) away from the Lake. This station has been known to hit the high-level alarm during high flow periods because a combination of the limited storage capacity and pumping capacity. As a result, relocation and upgrade of the lift station was considered for improvement.

Present-day improvements for the existing system were identified as **Improvements No. 2, No. 3, No. 4**, and No. 5 are generally described below:

• **Improvement No. 2**. considers relocating Lake Tulane's (LS #18) Lift Station, gravity sewer upsizing, proposed manholes, a proposed 12-ft diameter lift station, and 12-inch force main.

- Improvement No. 3 & No. 4 considers pigging/cleaning Lift Station #3's 16-inch force main and Lift Station #26's force main due to the potential of not achieving a velocity of 2.0 fps in the force main.
- **Improvements No. 5** considers upsizing the Central Avenue force main from 6-inch to 10-inch and upsizing downstream gravity sewer to 15-inch.

5-YEAR DEMANDS (2027) – The 5-year demand scenario analysis modeled the City's pressurized wastewater conveyance system utilizing the 5-year projected peak hour flows. The model results identified two (2) lift stations having insufficient capacity and gravity sewer improvements to be considered. The lift station was further evaluated to determine what improvements could be made to the system to provide adequate capacity. The improvements that were considered were identified as **Improvements No. 6, No. 7, and No. 8** and are generally described below:

- **Improvement No. 6** considers increasing the pumps capacity at Lift Station 6 to meet the estimated peak hour flows (PHFs).
- Improvement No. 7 considers upsizing multiple gravity sewer segments to increase capacity:
 - 12-inch gravity sewer to 15-inch
 - 8-inch gravity sewer to 12-inch
- Improvement No. 8 considers upsizing Lake Tulane's force main from 8-inch to 12-inch force main and upsizing Cummings force main from a 10-inch to a 16-inch and connection to Lake Tulane's force main. In addition, the force main would connect to Lift Station's #3 16-inch force main, bypassing Lift Station #3 and ultimately flowing directly to the Wastewater Treatment Plant.

10-YEAR DEMANDS (2032) – The 10-year demand scenario analysis modeled the City's pressurized wastewater conveyance system with 10-year projected peak hour flows. The model results identified one (2) lift stations having insufficient capacity, and gravity sewer improvements to be considered. The lift station was further evaluated to determine what improvements could be made to the system to provide adequate capacity. The improvements that were considered were identified as **Improvements No. 9, No. 10, and No. 11** and are generally described below:

- Improvement No. 9 considers adding a third pump at Lift Station #7 to increase its pumping capacity to meet the estimated PHFs. Improvements include internal piping and the addition of third pump.
- **Improvement No. 10** considers increasing the pumps capacity at Lift Stations #8 to meet the estimated peak hour flows (PHFs).
- Improvement No. 11 considers upsizing the multiple gravity sewer segments to increase capacity:
 - 8-inch gravity sewer to 12-inch
 - 12-inch gravity sewer to 18-inch
 - 14-inch gravity sewer to 18-inch

20-YEAR DEMANDS (2042) – The 20-year scenario analysis modeled the City's wastewater pressurized conveyance system with 20-year projected peak hour flows. The model results identified two (2) lift stations having insufficient capacity, and gravity sewer improvements to be considered. The lift stations were further

evaluated to determine what improvements could be made to the system to provide adequate capacity. The improvements that were considered were identified as **Improvements No. 12, No. 13, No. 14., No. 15. And No. 16** and are generally described below:

- Improvement No. 12 and No. 13 considers increasing the pumps capacity at Lift Stations #17 and Lift Stations 24 to meet the estimated peak hour flows (PHFs).
- **Improvement No. 14** considers upsizing Lift Station #7's force main from 6-inch to 10-inch to increase pumping capacity and installing VFDs to decrease velocities through the force main and downstream gravity sewer.
- **Improvement No. 15** considers upsizing Lift Station #6's force main from 4-inch to 6-inch to increase pumping capacity and decrease velocities through the force main.
- **Improvement No. 16** considers upsizing the following gravity sewer segments to increase capacity:
 - 8-inch gravity sewer to 12-inch
 - 12-inch gravity sewer to 15-inch
 - 15-inch gravity sewer to 18-inch

Based on the system modeling, field observations, and through discussions with City, a list of capital improvement projects were developed for implementation over the next 20 years. The capital improvements plan (CIP) consists of improvement projects and is provided for guidance to assist the City in developing a sustainable CIP that includes a planning level cost estimate for budgeting purposes. The 10 and 20 year improvements should be for conceptual use. Location and amount of growth may change over time and improvements shall be re-evaluated once they see the growth trigger a potential improvement. A list of the recommended capital improvements projects is listed in section "**RECOMMENDED WASTEWATER SYSTEM CAPITAL IMPROVEMENT PROJECTS." Appendix A** includes an exhibit of each improvement and the opinion of probable cost.

4



INTRODUCTION

Background

The City of Avon Park (City) requested professional services from Kimley-Horn & Associates, Inc. to develop a comprehensive wastewater master utility plan for the purpose of identifying and prioritizing capital improvement plan (CIP) projects. The scope of services included information gathering, development of hydraulic models, hydraulic analysis, cost development, report recommendations, and a prioritized list of capital improvement needs. This master utility plan focuses on identifying capital improvements required to the City's wastewater conveyance system to serve the present-day, 5-year, 10-year, and 20-year future needs of the utility service area.

Objectives, Scope, and Assumptions

Objectives

The primary objective of this report is to identify wastewater conveyance system improvements needed to meet future demands and identify hydraulic capabilities and limitations of the systems. This Master Utility Plan provides guidance for system improvements that are needed to adequately meet the City's projected wastewater and reclaimed demands for the specific scenarios presented in this report. The analyses presented herein are based on certain assumptions, hydraulic requirements and standards, and should be updated as conditions change with time.

Scope

The scope of this report is limited to creating and calibrating a hydraulic model for the City's wastewater conveyance system and identifying improvements to meet the future demands in the present-day utility service area. This report focuses on planning level system improvements for meeting service area demands at the 5-year, 10-year, and 20-year planning horizons. The City's gravity system and existing private utility systems within the City's service area are not included in the analysis. However, portions of City's gravity system just prior to lift stations were analyzed by comparing estimated gravity line capacities to the projected peak hour flows (PHFs). Specific scope elements are described below.

- Create and calibrate a SewerCAD hydraulic model of the City's service area that consist of the wastewater conveyance system, which includes lift stations and connecting force mains.
- Analyze existing and future (5-year, 10-year, 20-year) system demands placed on the wastewater system.
- Perform draw down tests at each lift station.
- Identify capacity limitations.
- Recommend system improvements for 5-year, 10-year, and 20-year planning horizons based on the calibrated model results.

Assumptions

Kimley»Horn

1. SewerCAD Model scenarios were evaluated under extended period simulation conditions. This simulation requires the wet well diameter, pump operating ranges, peak inflows into the wet well, and pump selection. Extended period simulation allows for a better analysis of the multiple lift



stations that contribute to a force main via manifold. This analysis is used to develop more realistic results than steady state conditions, which typically assumes all lift stations are on at once.

- 2. Minimum slopes were used when evaluating the gravity sewer and estimating the capacity. Only the segments that received pumped flows were evaluated.
- 3. The following hydraulic parameters were used to evaluate the model for deficiencies:

Lift Stations – Identified as not having capacity if the primary duty pump(s) could not pump estimated peak hour flows and/or meet the pressures in the system which would result in adverse impacts to the lift station (ex. Possible Overflow).

Force Mains – Identified as not having capacity if velocities exceeded 8.0 feet per second (fps) or if pressures exceeded one-half of the force main pipe pressure rating. Since the pressure rating of the force mains was unknown, a conservative assumption of DR-25 (165 PSI) pipe was assumed.

Gravity Mains – Identified as not having capacity if the max flow in the model exceeded the capacity of the gravity sewer. A manning's friction coefficient of 0.013 was utilized in the model.





EXISTING WASTEWATER SYSTEM

System Description

The City of Avon Park (City) utility service area encompasses approximately 20 square miles within Highlands County, FL. Within the utility service area, the City's existing wastewater conveyance system consists of thirty-five (35) lift stations and approximately 103,700 linear feet (LF) of force mains that convey wastewater flows to one (1) Wastewater Treatment Plant (WWTP). *Table 1* provides a summary of the force main lengths by diameter. *Figure 1* provides an aerial overview of the City's existing wastewater conveyance system as identified by the City of Avon Park.

| Table 1: City of Avon Park Force Mains | | | | | |
|--|-------------|--|--|--|--|
| Force Main Diameter | Length (If) | | | | |
| 16-inch | 4,000 | | | | |
| 12-inch | 2,705 | | | | |
| 10-inch | 11,025 | | | | |
| 8-inch | 33,890 | | | | |
| 6-inch or less | 52,065 | | | | |
| Total | 103,685 | | | | |





Wastewater Facility Permitting Agencies

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

The Florida Department of Environmental Protection (FDEP) is responsible for the permitting and monitoring of domestic Wastewater Treatment Plants (WWTP) for compliance with federal, state, and permitted effluent and public access reclaimed standards. The FDEP is also responsible for the permitting of the capacity and reclaimed water quality standards of public access and restricted public access sites. *Table 2* summarizes the City's WWTP as designated and permitted by FDEP.

| Table 2: City of Avon Park WWTP | | | | | | | |
|--|---------------|-------------------|----------------------------------|--|--|--|--|
| WWTP | Permit Number | Permit Expiration | Permitted Capacity AADF (MGD) | | | | |
| City of Avon Park Wastewater Treatment Facility | FLA14313 | May 9, 2026 | 1.5 | | | | |

EXISTING FLOWS

FDEP Discharge Monitoring Reports (DMR) were obtained to evaluate the monthly flows from October 2014 to June 2018 from the City's WWTP. *Table 3* summarizes the flows from 2018 through 2021. *Figure 2* summarizes the flows from the WWTP and illustrates the increase in flows.

| Table 3: WWTP Flows | | | | | | | | |
|---------------------|---------------------------|------|---------------|---------------------------------|----------------------------|--|--|--|
| Year | Year Annual Average (MGD) | | Max Day (MGD) | Max Day Peaking Factor | MMADF Peaking Factor | | | |
| 2018 | 0.80 | 0.87 | 1.27 | 1.58 | 1.08 | | | |
| 2019 | 0.78 | 0.86 | 1.62 | 2.07 | 1.10 | | | |
| 2020 | 0.80 | 0.92 | 1.58 | 1.97 | 1.13 | | | |
| 2021 | 0.84 | 0.89 | 1.62 | 1.92 | 1.04 | | | |





Figure 2: WWTP Monthly Average Flows



WASTEWATER DEMAND PROJECTIONS

Discussion

This section presents the methodology and analysis results of the flow projections within the City's wastewater utility service area. The key element in evaluating the future demands on a utility system is population growth. Population projections provide the basis for the demands that will be placed on the utility infrastructure. Identifying, quantifying, and locating these demands allows for proper analysis and planning of capital improvements that can efficiently and cost-effectively be implemented to service existing and new customers. Increases in demands within the City's utility system are anticipated to occur in one of four ways:

- 1. Existing and Infill Demands growth within the areas currently served by the City where new connections will be made to the existing utility system. Infill demands were classified as unoccupied parcels located within 100 feet of existing utility infrastructure.
- 2. Expansion Demands increased demands from the physical expansion of the utility system to bring currently non-served customers onto the network. This expansion can be driven by new development where customers along the expansion route may also be served. No proposed wastewater extensions were identified by the City at this time.
- 3. Known Future Developments increased demands resulting from new developments identified by the City that is not currently served by existing utilities.
- 4. Septic to Sewer Demands selected regions that are currently using septic tanks for wastewater disposal. No septic to sewer areas were identified by the City or included in this Master Plan.

METHODOLOGY FOR ESTIMATING DEMANDS

The wastewater demands are linked to population and the City's future land use data. The City's service territory was categorized to consists of three (3) major land use categories:

- 1. Residential
- 2. Commercial and Industrial
- 3. Known Future Developments

A specific demand calculation methodology was applied for each land use category. The following is a discussion of each methodology.

Residential – Residential demands were determined by spatially allocating the estimated population per parcel in each lift station basin for each planning period. The population projections for the City's service area are based on the *Small-Area Population Projection Methodology provided by Southwest Florida Water Management District (SWFWMD)* (2014). The following analysis was performed to determine the 5, 10, and 20-year population projections.

- 1. The population values for each parcel were obtained from the SWFWMD population projections GIS spatial data.
- 2. Population values were summarized for the years 2027 (5yr), 2032 (10yr), and 2042 (20yr) for each parcel.





Since water billing data was insufficient, to calculate the demand for 5, 10, and 20-years, the projected population for each parcel was divided by a value of 2.4 (Average persons in household per SWFWMD data) people per equivalent residential unit (ERU). Each ERU value for each parcel was then multiplied by 250 gpd/ERU, the City's current level of service standard for water and wastewater.

Projected Demand = [(Projected Population/2.4 people per ERU) x 250 (gpd/ERU)]

Commercial and Industrial – The City's water billing data were used as the basis for calculating future commercial and industrial wastewater demands. One of two approaches below were used to calculate the demands for Commercial and Industrial properties.

- Approach 1: Commercial and Industrial property with current billing data (Top 25 Water Users) – The parcel specific annual average water demand from the City's billing information was used for Commercial property with current billing data from the top 25 water users. The water demand was multiplied by a typical wastewater to water factor of approximately 75%. Wastewater meter data was utilized for the sole Industrial User (Nucor).
- Approach 2: Commercial property (Outside of the Top 25 Water Users) Existing wastewater demand was calculated for the smaller Commercial and Industrial properties by taking the average water billing data (outside of the 25 top water users) per square foot for commercial users and applying to the size of the parcel.

The 5, 10, and 20-year demands were calculated by multiplying the demand by the ratio of the 5,10- or 20year projected population growth as calculated using Bureau of Economics and Business Research (BEBR) high population projections.

Known Future Developments – Future demands were based the number of residential units provided by the City or Developer. The future demands were then calculated by multiplying the City's current level of service by the projected development equivalent residential units (ERU). Known future developments were assumed to be built out by year 2034.

SUMMARY OF PROJECTED FLOWS

The wastewater demands for each category were calculated using one or more of the approaches discussed above. These estimates were based on best available data and are subject to change as population growth rates may vary from current future predictions and should be updated accordingly. The summary of the projected wastewater flows is summarized in *Table 4* and *Figure 3* provides an aerial showing the general location for each demand.



| Table 4: Summary of Total Projected Wastewater Flows | | | | | | | | | | |
|--|---|------------------------------|-----------|------------------|-----------|------------------|-----------|------------------|-----------|--|
| | Demand | 2021 (Existing) ¹ | | 2027 5-Year | | 2032 10-Year | | 2042 20-Year | | |
| Demand | | ERU ² | ADF (MGD) | ERU ² | ADF (MGD) | ERU ² | ADF (MGD) | ERU ² | ADF (MGD) | |
| Existing | Existing Utility Service Area | 3,360 | 0.840 | 3,360 | 0.840 | 3,360 | 0.840 | 3,360 | 0.840 | |
| | Residential- | 0 | 0 | 499 | 0.125 | 987 | 0.247 | 2,225 | 0.556 | |
| Infill | Commercial/Industrial- Outside City Limits | 0 | 0 | 143 | 0.036 | 275 | 0.069 | 576 | 0.144 | |
| | Subtotal | 3,360 | 0.840 | 4,002 | 1.001 | 4,622 | 1.156 | 6,161 | 1.54 | |
| | Twin Lakes | 0 | 0 | 177 | 0.044 | 325 | 0.081 | 385 | 0.096 | |
| Future | Avon Manor | 0 | 0 | 115 | 0.028 | 211 | 0.052 | 250 | 0.062 | |
| Development | Avon Park Apartments | 0 | 0 | 37 | 0.009 | 67 | 0.016 | 80 | 0.020 | |
| | Lake Lotela Development | 0 | 0 | 9 | 0.002 | 15 | 0.004 | 20 | 0.005 | |
| | Subtotal | 0 | 0 | 338 | 0.083 | 618 | 0.153 | 735 | 0.183 | |
| Total | | 3,360 | 0.840 | 4,340 | 1.084 | 5,250 | 1.309 | 6,896 | 1.723 | |

1. From Historical Daily Monitoring Report (DMR) Data

2. Assumes 250 gpd/ERU

Table 5 summarizes the total projected ADF from the lift stations contributing to the WWTP based on the adjusted flow rates and current flow configuration and the percent of WWTP permitted capacity. Treatment plant evaluation and improvements was not a part of this master plan.

| Table 5: WWTP Projected Flows and Percent of WWTP Permitted Capacity | | | | | | | | | | |
|--|------------------------|-----------------------|----------------------------------|-----------------------------------|-----------------------------------|--|--|--|--|--|
| WWTP No. | Permitted ADF (MGD) | Existing ADF (MGD) | 5-Year Projected ADF (MGD) | 10-Year Projected ADF (MGD) | 20-Year Projected ADF (MGD) | | | | | |
| WWTP Lift Station Contributing Flows | 1.5 | 0.84 (56 %) | 1.08 (72%) | 1.31 (87%) | 1.86 (115%) | | | | | |





WASTEWATER MODEL DEVELOPMENT

The primary purpose for developing a wastewater hydraulic model is to allow for a better understanding of system performance and operation. Hydraulic models can be used to simulate various system conditions to identify areas within the system that need improvements to meet existing and future needs. This section provides a description of the data used to create the wastewater hydraulic model and how it was calibrated.

Level of Detail

The wastewater hydraulic modeling software used in this analysis is SewerCAD. SewerCAD is a CADbased wastewater conveyance modeling program that, with user input, calculates a wide variety of system parameters. These results assist engineers and others in identifying locations in the system where capacity limitations exist. The model can be used to assess the existing system and how the system will respond to future increases in demand. It also allows for modification to system components to evaluate how the system responds to the changes.

The City maintains data on its wastewater collections system utilizing a GIS database. The City's GIS data was initially used to create the hydraulic model. Review of existing drawings received and coordination with the City occurred to confirm the final connectivity and flow directions. *Figure 4* provides the general layout and connectivity used for the model. The following provides a narrative on how each attribute was constructed in the model:

Force Mains: The force main network was initially developed by importing the City's GIS wastewater system into the model. In the model, pipes have multiple input parameters that directly impact system performance which include length, diameter, and roughness coefficients. Force main length and diameter were assigned based on the City's GIS data. Data may have been revised based on coordination with the City or field observations. Roughness coefficients used a Hazen-Williams friction coefficient (C-factor) ranging from 90 to 150 as adjustments were made during calibration.

Junctions were added to the force main network where changes in diameter and where additional force mains manifold to the system. At each junction, ground elevation data was input by extracting elevations from SWFWMD contour data in Highlands County. Pipe invert elevations were calculated by assuming three (3) feet of cover. The elevations assigned to the junctions in the model are referenced to the North American Vertical Datum of 1988 (NAVD88). Initial, logical assumptions on connectivity and flow direction were used followed by conversations with the City to confirm the assumptions and finalize the force main network to reflect actual system configurations.

Wet Wells: The model inputs for the lift station wet wells include wet well diameter, bottom elevation, initial water level, maximum water level, high level alarm, and minimum water level. The location of each wet well was obtained from the City's GIS wastewater system and wet well ground elevations were extracted from the contour data or based on lift station details provided by the City. Locations were revised by comparing with aerials. The wet well bottom elevation was determined by subtracting the City provided wet well depths from the contour ground elevations. Elevations may have been revised based on lift station information provided by the City or information received from draw down tests.

Pumps: Pump elements were added to the model at each lift station, connecting the lift station wet well to the force main. Pump curves were input into the model based on the information provided by the City, and/or the pump manufacturers.

Gravity Mains: Mains that received pumped flows were added based on GIS or record drawing info.








Model Calibration

Model calibration is the process of adjusting estimated model parameters to adequately match observed conditions in the system. There are no standard or absolute metrics required in terms of number of wet-weather events, number of monitoring points, or any other characteristic that must be met to have a "valid" calibration/validation approach. Rather, it is an experience-based process that is successful when the end users are comfortable applying the model for its intended purpose. While it is not universal, some regulatory reviewers recognize that a visual "goodness-of-fit" comparison should be the base measure of calibration/validation adequacy. Statistical percent difference comparisons can be used in addition to this base measure and provide a useful secondary measure if their purpose and limitations are properly understood. This process helped to ensure that the model was sufficiently representative of the City's conveyance system and would reasonably predict system head and flow conditions and provide a tool for predicting system performance.

HYDRAULIC CALIBRATION

Calibration of City's conveyance hydraulic model focused on adjusting hydraulic inputs in the model. The hydraulic inputs were calibrated by adjusting the Hazen-Williams C-factors until model results indicated that pump operating conditions at each of the lift stations were within +/- 15 percent of drawdown data or design conditions. For some areas where the drawdown data did not seem reliable, the pump design point was used as a comparison. Draw down tests may be inaccurate due to inaccuracy of pressure gauges, and ranges of inflow and tie in pressures during the tests. Some lift stations did not include pressure gauges at the time of the draw down test. Draw down test pressure or flow information that varied greatly from the design point was further brought up to the City and further evaluated. Model parameters were adjusted and if the process required that parameters be adjusted outside of reasonable ranges, the model configuration and assumptions were re-evaluated to verify the contributing areas and force main routing were correct.

HYDROLOGIC CALIBRATION

The influent flow for each lift station in the analysis was obtained by adding up the demand projections within each lift station sewer shed as described above in section **WASTEWATER DEMAND PROJECTIONS**. The sewer sheds were created around gravity mains/potential connections that may lead to each appropriate lift station. With no historical flow data, the total demands calculated within each sewer shed was used to determine average daily flow (ADF) and peak hour flow (PHF). Once the ADFs were calibrated, the PHF to each lift station were calculated using the 10 State Standards peaking factor equation.

$$PHF = ADF * \frac{18 + \sqrt{P}(\text{population in thousands})}{4 + \sqrt{P}(\text{population in thousands})}$$

A summary of the individual lift station's ADF and PHF for the existing and future scenarios can be found in **Appendix B**.





WASTEWATER CAPACITY ANALYSIS

As part of the of the City's Wastewater Master Plan, a capacity analysis of the system was performed using the calibrated hydraulic model. The following analyses considered the pressure and velocities in force mains and lift station pumping capacities.

Analysis and Methodology

The primary objective of this analysis is to identify the system improvements needed for the wastewater conveyance system to meet existing and future demands. To identify capacity limitations, the following hydraulic standards where used:

Lift Stations – Identified as not having capacity if the primary duty pump(s) could not pump estimated peak hour flows and/or meet the pressures in the system which would result in adverse impacts to the lift station (ex. Possible Overflow).

Force Mains – Identified as not having capacity if velocities exceeded 8.0 feet per second (fps). If velocities were less than 2.0 fps, force main was identified as not meeting scour velocities and identified for potential maintenance requirements. Pressures that exceeded one-half of the force main pipe pressure rating were considered at capacity. Since the pressure rating of the force mains was unknown, a conservative assumption of DR-25 (165 PSI) pipe was assumed.

Gravity Mains –Identified as not having capacity if the max flow in the model exceeded the capacity of the gravity sewer. A manning's friction coefficient of 0.013 was utilized in the model.

Using the calibrated model, scenarios for the existing, 5-year, 10-year, and 20-year projected wastewater flows were evaluated under extended period simulation (EPS) due to the amount of manifolding lift stations to get more realistic results. This simulation is over a 24-hour period which includes calculated peak flows for each station, operating conditions, and typical peak diurnal curve for the flows. The diurnal curve is a flow pattern over a 24-hour period.

The wastewater system hydraulic standards and operating guidelines were developed from information provided by the City and FDEP standards. The wastewater system hydraulic standards are described below.

- Minimum force main design velocity: 2.0 fps
- Maximum force main design velocity: 8.0 fps
- 100% pipe flow for 8-inch gravity sewer: 343 gpm
- 100% pipe flow for 10-inch gravity sewer: 520 gpm
- 100% pipe flow for 12-inch gravity sewer: 750 gpm
- 100% pipe flow for 15-inch gravity sewer: 1,130 gpm
- 100% pipe flow for 21-inch gravity sewer: 2,249 gpm

The lift stations that do not pump directly to the WWTP were added to the flows of the appropriate downstream lift station. The results of the flow model are summarized in *Appendix B.*



Model Results

The "Flow" and "Pump" modeling methods were used to evaluate system performance for each of the flow scenarios against specific hydraulic standards, evaluation criteria, or operating guidelines. If an evaluation criterion was not met, then a proposed system improvement was identified.

Model results indicate that several lift stations would have insufficient capacity and are unable to pump the estimated influent PHFs given the projected PHFs or pressures in the system. A summary of the lift stations impacted per each planning period indicated in *Table 6.* A complete list of flow model results for each individual lift station can be found in **Appendix B.**

| Table 6:- Capacity Limited Lift Stations | | | | | | | |
|--|--|---|---|--|--|--|--|
| Scenario 1: Existing System Flows | Scenario 2: 5-Year Projected Flows | Scenario 3: 10-Year Projected Flows | Scenario 4: 20-Year Projected Flows | | | | |
| LS18 | LS 6 | LS 7 | LS 17 | | | | |
| | LS 17 | LS 8 | LS 24 | | | | |

To identify potential improvements for each lift station identified in *Table 6*, the projected wastewater flows were input as fixed capacity pumps to determine the required pump head necessary to pump the estimated flows. The recommended improvements were then simulated in the model to assess if any additional lift stations, gravity sewer, or force mains would be impacted from the increase in flows. Variable frequency drives (VFDs) were recommended for most lift stations to keep downstream improvements and flows to a minimum.



PRESENT-DAY SYSTEM IMPROVEMENTS

Kimley-Horn coordinated with the City on a list of improvements including lift station rehabilitation and generator installations due to aging infrastructure and need for emergency backup power. These improvements were identified as Improvements **No.1A through 1B** and are generally described below:

- **Improvement No.1A** considers rehabilitation of Lift Station #8 to replace the pumps, discharge piping, and valve vault that are in poor condition. In addition, cleaning and lining of the wet well.
- **Improvements No.1B** considers installing generators at three lift stations to provide backup power. These stations receive flows from other lift stations.

A condition assessment for gravity sewer and force mains was not included as part of this master plan and is recommended due to the known aging of the collection system.

This existing demand scenario modeled the City's wastewater conveyance system with existing (2021) peak hour flows. The model results identified two (2) force mains that were not meeting a cleansing velocity of 2.0 fps. In addition, calculated peak flows exceeded the pumping capacity of Lake Tulane's Lift Station as shown in the flow model results listed in **Appendix B**. The City desires to relocate Lake Tulane's Lift Station (LS #18) away from the Lake. This station has been known to have high-level alarms during high flow periods due to a combination of the limited storage capacity and pumping capacity. As a result, relocation and upgrade of the lift station was considered the recommended improvement.

The model results identified one (1) lift station having insufficient capacity when simulating existing PHFs. *Table 7* provides a summary of the capacity limited lift stations and their performance in the model.

| Table 7: Existing Scenario – Lift Stations with Insufficient Pumping Capacity | | | | | | | |
|---|---------------|---------------|----------------------------------|--|--|--|--|
| Lift Ctation | Existing Wast | tewater Flows | Existing Pump(s) (Model Results) | | | | |
| Lift Station | ADDF (gpm) | PHF (gpm) | Pumped Flow (gpm) | | | | |
| LS18 | 243 | 759 | 650* | | | | |

*Note – Pumped Flow for LS #18 included two pumps discharging due to a triplex station

Present-day improvements for the existing system were identified as **Improvements No. 2, No. 3, No. 4, No. 5 and are generally described below:**

- Improvement No.2 considers relocating Lake Tulane's (LS #18) Lift Station off the lake at a nearby potential site at the corner of Twin Lakes known development. Improvements include approximately 710 LF of 18-inch gravity sewer, manholes, a new lift station (12-ft dia. wet well), and approximately 50 LF of 12-inch force main. Pumps would be sized for 20 year demands but slowed down with VFDs to meet the current peak flows and reduce the pressures within the force main.
- **Improvement No.3 & 4** considers pigging/cleaning Lift Station #3's 16-inch force main and Lift Station #26's force main due to the potential of sediments built up in the force main from not achieving a minimum velocity of 2.0 fps in the force main.
- Improvements No. 5 considers upsizing the Central Avenue Force Main from 6-inch to 10-inch (Approximately 1,630 LF) and upsizing the two downstream 8-inch gravity sewer segments to 15inch (Approximately 656 LF) and one 12-inch gravity segment to 15-inch (Approximately 200 LF).



This is due to exceeding capacity in the two 8-inch gravity segments on Central Avenue and to help the two lift stations achieve design capacity. Also, since the 12-inch gravity sewer just downstream is anticipated to exceed capacity in 5 years, this segment was included in the improvement.

5-YEAR SYSTEM IMPROVEMENTS

Model results from simulating the 5-year projected PHFs identified two (2) additional lift stations having insufficient capacity. *Table 8* provides a summary of the capacity limited lift stations and their performance in the model.

| Table 8: 5-Year Scenario – Lift Stations with Insufficient Pumping Capacity | | | | | | | |
|---|------------------|------------------|----------------------------------|--|--|--|--|
| Lift Station | 5-Year Projected | Wastewater Flows | Existing Pump(s) (Model Results) | | | | |
| Lint Station | ADDF (gpm) | PHF (gpm) | Pumped Flow (gpm) | | | | |
| LS 6 | 49 | 181 | 135 | | | | |
| LS17 | 349 | 1036 | 920 | | | | |

To provide adequate capacity at the lift stations listed in *Table 8* and gravity sewer, the following improvements were evaluated in the model.

- **Improvement No. 6** considers increasing the pumps capacity at Lift Stations 6 to meet the estimated peak hour flows (PHFs).
- Improvement No. 7 considers upsizing the following gravity sewer segments to increase capacity:
 - Upsizing approximately 34 LF of 12-inch gravity sewer to 15-inch. The 12-inch is surrounded by 14-inch gravity sewer, so the gravity pipe size should be field verified.
 - Upsizing approximately 3,178 LF of 8-inch Gravity Sewer to 12-inch Gravity Sewer.
- Improvement No. 8 considers upsizing Lake Tulane's force main approximately 1,840 LF of 8-inch to 12-inch force main and upsizing Cummings force main from a 10-inch to a 16-inch force main (approximately 7,743 LF) and connecting Lake Tulane's force main to it. In addition, the force main would connect to Lift Station's 3 16-inch force main, bypassing Lift Station #3 and ultimately flowing directly to the Wastewater Treatment Plant. This improvement was due to insufficient capacity at Lift Station 18 and the high pressures in Lake Tulane's force main.

10-YEAR SYSTEM IMPROVEMENTS

Model results from simulating the 10-year projected PHFs identified two (2) additional lift stations having insufficient capacity. *Table 9* provides a summary of the capacity limited lift stations and their performance in the model.





| Table 9: 10-Year Scenario – Lift Stations with Insufficient Pumping Capacity | | | | | | | | |
|--|-------------------|------------------|----------------------------------|--|--|--|--|--|
| Lift Station | 10-Year Projected | Wastewater Flows | Existing Pump(s) (Model Results) | | | | | |
| Lift Station | ADDF (gpm) | PHF (gpm) | Pumped Flow (gpm) | | | | | |
| LS7 | 128 | 433 | 276 | | | | | |
| LS8 | 136 | 456 | 450 | | | | | |

- Improvement No. 9 considers adding a third pump at Lift Station #7 to increase its pumping capacity to meet the estimated PHFs. The lift station was originally designed to be a triplex (3 pumps) station. Improvements include internal piping and the addition of third pump. Assumed control panel was designed to handle the load of three pumps.
- **Improvement No. 10** considers increasing the pumps capacity at Lift Station #8 to meet the estimated peak hour flows (PHFs).
- **Improvement No. 11** considers upsizing the following gravity sewer segments to increase capacity:
 - Upsizing approximately 2,548 LF of 8-inch gravity sewer to 12-inch
 - Upsizing approximately 480 LF of 12-inch gravity sewer to 18-inch
 - Upsizing approximately 8,885 LF of 14-inch gravity sewer to 18-inch

20-YEAR SYSTEM IMPROVEMENTS

Model results from simulating the 20-year projected PHFs identified one (1) additional lift stations having insufficient capacity. *Table 10* provides a summary of the capacity limited lift stations and their performance in the model.

| Table 10: 20-Year Scenario – Lift Stations with Insufficient Pumping Capacity | | | | | | | |
|---|-------------------|------------------|----------------------------------|--|--|--|--|
| Lift Station | 20-Year Projected | Wastewater Flows | Existing Pump(s) (Model Results) | | | | |
| Lift Station | ADDF (gpm) | PHF (gpm) | Pumped Flow (gpm) | | | | |
| LS17 | 665 | 1786 | 1400 | | | | |
| LS24 | 115 | 393 | 292 | | | | |

- Improvement No. 12 and No. 13 considers increasing the pumps capacity at Lift Stations 17 and Lift Stations 24 to meet the estimated peak hour flows (PHFs).
- Improvement No. 14 considers upsizing approximately 4,385 LF of Lift Station 7's force main from 6-inch to 10-inch to increase pumping capacity and installing VFDs to decrease velocities through the force main and downstream gravity sewer.



- **Improvement No. 15** considers upsizing approximately 2,050 LF of Lift Station 6's force main from 4-inch to 6-inch to increase pumping capacity and decrease velocities through the force main.
- **Improvement No. 16** considers upsizing the following gravity sewer segments to increase capacity:
 - Upsizing approximately 925 LF of 8-inch gravity sewer to 12-inch
 - Upsizing approximately 6,171 LF of 12-inch gravity sewer to 15-inch
 - Upsizing approximately 650 LF of 15-inch gravity sewer to 18-inch



RECOMMENDED WASTEWATER SYSTEM CAPITAL IMPROVEMENT PROJECTS

Using the model results as discussed in the Wastewater Capacity Analysis section, capital improvement projects were identified to address current deficiencies and to meet future wastewater demands. Please see **Appendix A** for an opinion of probable cost and location map for each individual improvement listed below. Variations in material costs, labor, construction methods, and market conditions will affect the final cost of these projects. The following capital projects should be considered for improving the existing system for the safety and reliability of the wastewater service throughout the City.

PRESENT-DAY SYSTEM IMPROVEMENTS

- **Improvement No.1A** considers rehabilitation of Lift Station #8 to replace the pumps, discharge piping, and valve vault that are in poor condition. In addition, cleaning and lining of the wet well.
- **Improvements No.1B** considers installing generators at three lift stations to provide backup power. These stations receive flows from other lift stations.
- Improvement No.2 considers relocating Lake Tulane's (LS #18) Lift Station off the lake at a nearby potential site at the corner of Twin Lakes known development. Improvements include approximately 754A LF of 18-inch gravity sewer, manholes, a new lift station (12-ft dia. wet well), and approximately 50 LF of 12-inch Force Main.
- **Improvement No.3 & 4** considers pigging/cleaning Lift Station #3's 16-inch force main and Lift Station #26's force main due to the potential of not achieving a velocity of 2.0 fps in the force main.
- Improvements No. 5 considers upsizing the Central Avenue Force Main from 6-inch to 10-inch (Approximately 1,630 LF) and upsizing the two downstream 8-inch gravity sewer segments to 15-inch (Approximately 656 LF) and one 12-inch gravity segment to 15-inch (Approximately 200 LF). This is due to exceeding capacity in the two 8-inch gravity segments on Central Avenue and to help the two lift stations near capacity discharge more. Also, since the 12-inch gravity sewer just downstream is planned to exceed capacity in 5 years, this segment was included in the improvement.

5-YEAR SYSTEM IMPROVEMENTS

- **Improvement No. 6** considers increasing the pumps capacity at Lift Stations 6 to meet the estimated peak hour flows (PHFs).
- Improvement No. 7 considers upsizing the following gravity sewer segments to increase capacity:
 - Upsizing approximately 34 LF of 12-inch gravity sewer to 15-inch. The 12-inch is surrounded by 15-inch gravity sewer, so the gravity pipe size should be field verified.
 - Upsizing approximately 3,178 LF of 8-inch Gravity Sewer to 12-inch Gravity Sewer.
- Improvement No. 8 considers upsizing Lake Tulane's force main approximately 1,840 LF of 8-inch to 12-inch force main and upsizing Cummings force main from a 10-inch to a 16-inch force main (approximately 7,743 LF) and connecting Lake Tulane's force main to it. In addition, the force main would connect to Lift Station's 3 16-inch force main, bypassing Lift Station 3 and ultimately flowing



directly to the Wastewater Treatment Plant. This improvement was due to insufficient capacity at Lift Station 18 and the high pressures in Lake Tulane's force main.

10-YEAR SYSTEM IMPROVEMENTS

- **Improvement No. 9** considers adding a third pump at Lift Station #7 to increase its pumping capacity to meet the estimated PHFs. The lift station was originally designed to be a triplex (3 pumps) station. Improvements include internal piping and the addition of third pump. Assumed control panel was designed to handle the load of three pumps.
- **Improvement No. 10** considers increasing the pumps capacity at Lift Stations 8 to meet the estimated peak hour flows (PHFs).
- **Improvement No. 11** considers upsizing the following gravity sewer segments to increase capacity:
 - Upsizing approximately 2,548 LF of 8-inch gravity sewer to 12-inch
 - Upsizing approximately 480 LF of 12-inch gravity sewer to 18-inch
 - Upsizing approximately 8,885 LF of 14-inch gravity sewer to 18-inch

20-YEAR SYSTEM IMPROVEMENTS

- Improvement No. 12 and No. 13 considers increasing the pumps capacity at Lift Stations 17 and Lift Stations 24 to meet the estimated peak hour flows (PHFs).
- Improvement No. 14 considers upsizing approximately 4,385 LF of Lift Station 7's force main from 6-inch to 10-inch to increase pumping capacity and installing VFDs to decrease velocities through the force main and downstream gravity sewer.
- **Improvement No. 15** considers upsizing approximately 2,050 LF of Lift Station 6's force main from 4-inch to 6-inch to increase pumping capacity and decrease velocities through the force main
- **Improvement No. 16** considers upsizing the following gravity sewer segments to increase capacity:
 - Upsizing approximately 925 LF of 8-inch gravity sewer to 12-inch
 - Upsizing approximately 6,171 LF of 12-inch gravity sewer to 15-inch
 - Upsizing approximately 650 LF of 15-inch gravity sewer to 18-inch

RECOMMENDED SYSTEM IMPROVEMENTS SUMMARY

Based on the system modeling, field observations, and through discussions with City, a list of capital improvements were developed for implementation over the next 20-years. The capital improvements plan (CIP) consists of improvement projects and is provided for guidance to assist the City in developing a sustainable CIP that includes a planning level cost estimate for budgeting purposes. Please see **Appendix A** for an opinion of probable cost (today's dollars) and location map for each individual improvement listed below.

Table 11 summarizes total cost per planning period of the improvement projects that were identified from the analyses.



| Table 11: Recommended System Improvement Projects Cost Summary | | | | | | | |
|--|----------|----|---------------------------|--|--|--|--|
| Planning Period Improvement Projects | | | Dpinion of obable Cost | | | | |
| Present Day System Improvements | Subtotal | \$ | 2,600,000 | | | | |
| 5-Year System Improvements | Subtotal | \$ | 5,160,000 | | | | |
| 10-Year System Improvements | Subtotal | \$ | 8,650,000 | | | | |
| 20-Year System Improvements | Subtotal | \$ | 6,320,000 | | | | |
| Total | | \$ | 23,600,000 | | | | |



APPENDICES



APPENDIX A: Modeled Improvements Map & Opinion of Probable Cost





| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | |
|--|---|------|--------------------|-----------------|------------|--|
| | FOR The City of Aven Deck | | | | | |
| | WW Improvement No. 1 A: South Jake Isis (15#8) lift Station Rehabilitat | ion | | | | |
| ITEM # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | AMOUNT | |
| 1 | Lift Station #8 Lift Station Rehabilitation (Pumps, Valve Vault, Coating, Piping) | LS | 1 | \$ 182,692 | \$ 182,692 | |
| SUBTOTAL | | | | | | |
| | | SUR | VEY, DESIGN AND PI | ERMITTING (15%) | \$ 27,000 | |
| | | COI | ISTRUCTION ADMIN | ISTRATION (10%) | \$ 18,300 | |
| | | | CON | ITINGENCY (30%) | \$ 54,900 | |
| | | | | TOTAL | \$ 290,000 | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or a costs will not vary from its opinions of probable costs. | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | |
|--|---|------|------------------|------------------|----|---------|
| | FOR | | | | | |
| | The City of Avon Park | | | | | |
| | WW Improvement No.1.L: Addition of Generators for Lift Stations | | | | | |
| ITEM # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | A | MOUNT |
| 1 | Generators to be added to lift stations at South Lake Isis, Walmart, and Memorial | LS | 1 | \$ 247,500 | \$ | 247,500 |
| | | | | SUBTOTAL | \$ | 248,000 |
| | | SUI | RVEY, DESIGN AND | PERMITTING (15%) | \$ | 37,000 |
| | | CO | NSTRUCTION ADMI | NISTRATION (10%) | \$ | 24,800 |
| | | | CC | ONTINGENCY (30%) | \$ | 74,400 |
| | | | | TOTAL | \$ | 390,000 |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are bas the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or ac construction costs will not vary from its opinions of probable costs. | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | | | | |
| | FOR | | | | | | | | |
| | The City of Avon Park | | | | | | | | |
| | WW Improvement No.2: Relocate and Upgrade Tulane's Lift Statio | n | | | | | | | |
| ITEM # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | | AMOUNT | | | |
| 1 | Relocation and upgrade of Tulane's Lift Station (Gravity Sewer, New Lift Station, and Force Main) | LS | 1 | \$ 1,193,549 | \$ | 1,193,549 | | | |
| | | | | SUBTOTAL | \$ | 1,194,000 | | | |
| | | SURV | ey, design and pe | RMITTING (15%) | \$ | 179,000 | | | |
| | | CONS | STRUCTION ADMIN | ISTRATION (10%) | \$ | 119,400 | | | |
| | | | CON | ITINGENCY (30%) | \$ | 358,200 | | | |
| | | | | TOTAL | \$ | 1,860,000 | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual costs will not vary from its opinions of probable costs. | | | | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST FOR The City of Avon Park | | | | | | | | |
|------------------------|--|------|----------|------------------|----|--------|--|--|--|
| ITEM # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | | AMOUNT | | | |
| 1 | Pigging of Lift Station 3's 16-inch Ductile Iron Force Main | LS | 1 | \$ 22,000 | \$ | 22,000 | | | |
| | | | • | SUBTOTAL | \$ | 22,000 | | | |
| | | | CC | ONTINGENCY (30%) | \$ | 6,600 | | | |
| | | | | TOTAL | \$ | 30,000 | | | |
| The Engine on the i | he Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs. | | | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | |
|---|---|------|----------|-----------------|----|--------|
| | FOR | | | | | |
| | The City of Avon Park | | | | | |
| | WW Improvement No.4: Pigging of Lift Station #26 Crystal Lake Force Mai | n | | | | |
| ITEM # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | AM | NOUNT |
| 1 | Pigging of Lift Station #26 Crystal Lake Force Main | LS | 1 | \$ 22,321 | \$ | 22,321 |
| | | | | SUBTOTAL | \$ | 22,000 |
| | | | CON | NTINGENCY (30%) | \$ | 6,600 |
| | | | | TOTAL | \$ | 30,000 |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs. | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | | |
|--|--|---------------|-------------------|------------------|----|---------|--|
| | FOR | | | | | | |
| | The City of Avon Park | | | | | | |
| | WW Improvement No.5: Upsizing of Central Avenue Force Main and Downstream | Gravity Sewer | | | | | |
| ITEM # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | | AMOUNT | |
| 1 | The upsizing of Central Avenue Force Main (Approximately 1,630 LF) and Downstream Gravity Sewer (Approximately 856 LF) | LS | 1 | \$ 558,103 | \$ | 558,103 | |
| | · | | | SUBTOTAL | \$ | 558,000 | |
| | | SUR | /ey, design and p | ERMITTING (15%) | \$ | 84,000 | |
| | | CON | STRUCTION ADMIN | IISTRATION (10%) | \$ | 55,800 | |
| | | | COI | VTINGENCY (30%) | \$ | 167,400 | |
| | | | | TOTAL | \$ | 870,000 | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are to information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual costs will not vary from its opinions of probable costs. | | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | | | | | | | | |
|--|--|-----|-----------------|------------------|----|---------|--|--|--|--|--|--|--|
| FOR | | | | | | | | | | | | | |
| The City of Avon Park | | | | | | | | | | | | | |
| WW Improvement No.1.6: Replace Both Pumps and Control Panel in Lift Station #6 (North Lake) | | | | | | | | | | | | | |
| ITEM # | ITEM # DESCRIPTION UNIT QUANTITY UNIT PRICE | | | | | | | | | | | | |
| 1 | 1 Replace Both Pumps, Base Elbows, Control Panel and Install VFDs in Lift Station #6 LS 1 \$ 172.546 | | | | | | | | | | | | |
| | | | | SUBTOTAL | \$ | 173,000 | | | | | | | |
| SURVEY, DESIGN AND PERMITTING (15) | | | | | | | | | | | | | |
| | | CON | STRUCTION ADMIN | IISTRATION (10%) | \$ | 17,300 | | | | | | | |
| | | | 100 | NTINGENCY (30%) | \$ | 51,900 | | | | | | | |
| | | | | TOTAL | \$ | 270,000 | | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or a costs will not vary from its opinions of probable costs. | | | | | | | | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | | | | | | | |
|---|--|--|-----|-----------------|----|-----------|--|--|--|--|--|--|
| | FOR | | | | | | | | | | | |
| The City of Avon Park | | | | | | | | | | | | |
| WW Improvement No.7: 5 Year Gravity Sewer Improvements | | | | | | | | | | | | |
| ITEM # | ITEM # DESCRIPTION UNIT QUANTITY UNIT PRICE | | | | | | | | | | | |
| 1 | 1 5 Year Gravity Sewer Improvements (Upsizing 34 LF of 12" to 15" and 3,178 LF of 8" to 12") LS 1 \$ 1,133,603 | | | | | | | | | | | |
| | | | | SUBTOTAL | \$ | 1,134,000 | | | | | | |
| SURVEY, DESIGN AND PERMITTING (15% | | | | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10) | | | | | | | | | | | | |
| | | | CON | NTINGENCY (30%) | \$ | 340,200 | | | | | | |
| | | | | TOTAL | \$ | 1,760,000 | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or ac costs will not vary from its opinions of probable costs. | | | | | | | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | | | | | | | |
|--|---|------|--------------------|-----------------|----|-----------|--|--|--|--|--|--|
| | FOR | | | | | | | | | | | |
| The City of Avon Park | | | | | | | | | | | | |
| | WW Improvement No.8: Upsizing of Lake Tulane's and Cumming's Force Main | | | | | | | | | | | |
| ITEM # | ITEM # DESCRIPTION UNIT QUANTITY UNIT PRICE | | | | | | | | | | | |
| 1 | Upsizing of Lake Tulane's and Cumming's Force Main (1,840 LF of 8" to 12" and 7,743 LF of 10" to 16") LS 1 \$ 2,017.074 | | | | | | | | | | | |
| | | | | SUBTOTAL | \$ | 2,017,000 | | | | | | |
| | | SUR/ | VEY, DESIGN AND PE | RMITTING (15%) | \$ | 303,000 | | | | | | |
| | | CON | STRUCTION ADMIN | ISTRATION (10%) | \$ | 201,700 | | | | | | |
| | | | CON | ITINGENCY (30%) | \$ | 605,100 | | | | | | |
| | | | | TOTAL | \$ | 3,130,000 | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or a costs will not vary from its opinions of probable costs. | | | | | | | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST FOR | | | | | | | | | | |
|---|--|------|----------|------------------------|------|--------|--|--|--|--|--|
| 1 | The City of Avon Park | | | | | l | | | | | |
| | WW Improvement No.9: Addition of a Third Pump at Lift Station #7 | | | | | | | | | | |
| ITEM # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | | AMOUNT | | | | | |
| 1 | Addition of a third Pump at Lift Station #7 and Internal Piping | LS | 1 | \$ 48,250 | \$ | 48,250 | | | | | |
| SUBTOT | | | | | | | | | | | |
| | | | 100 | JTINGENCY (30%) | \$ | 14,400 | | | | | |
| | | | | TOTAL | . \$ | 70,000 | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein an information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or act costs will not vary from its opinions of probable costs. | | | | | | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | | | | | | | |
|---|--|------|------------------|-----------------|----|---------|--|--|--|--|--|--|
| | FOR | | | | | | | | | | | |
| | The City of Avon Park | | | | | | | | | | | |
| WW Improvement No.10: Replace Both Pumps and Control Panel in Lift Station #8 (S Lake Isis) and Install VFDs | | | | | | | | | | | | |
| ITEM # | ITEM # DESCRIPTION UNIT QUANTITY UNIT PRICE AMO | | | | | | | | | | | |
| 1 | 1 Replace Both Pumps, Base Elbows, Control Panel and Install VFDs in Lift Station #8 LS 1 \$ 1 | | | | | | | | | | | |
| | | | | SUBTOTAL | \$ | 173,000 | | | | | | |
| SURVEY, DESIGN AND PERMITTING (15%) | | | | | | | | | | | | |
| | | CONS | STRUCTION ADMINI | ISTRATION (10%) | \$ | 17,300 | | | | | | |
| | | | CON | ITINGENCY (30%) | \$ | 51,900 | | | | | | |
| | | | | TOTAL | \$ | 270,000 | | | | | | |
| To TAL The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herei the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, b construction costs will not vary from its opinions of probable costs. | | | | | | | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | | | | | | |
|--|--|----|-----|-----------------|----|-----------|--|--|--|--|--|
| FOR | | | | | | | | | | | |
| The City of Avon Park | | | | | | | | | | | |
| | WW Improvement No.11: Gravity Sewer Upsizing | | | | | | | | | | |
| ITEM # | ITEM # DESCRIPTION UNIT QUANTITY UNIT PRICE | | | | | | | | | | |
| 1 | The upsizing of gravity sewer segments (2,548 LF of 8" to 12", 480 LF of 12" to 18", 8,885 LF of 14" to 18") | LS | 1 | \$ 5,356,562 | \$ | 5,356,562 | | | | | |
| | | | | SUBTOTAL | \$ | 5,357,000 | | | | | |
| SURVEY, DESIGN AND PERMITTING (15%) | | | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | | | | | | |
| | | | COI | NTINGENCY (30%) | \$ | 1,607,100 | | | | | |
| | | | | TOTAL | \$ | 8,310,000 | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided hereii information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or act will not vary from its opinions of probable costs. | | | | | | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | | | | | | | |
|---|--|-----|-------------------|-----------------|----|---------|--|--|--|--|--|--|
| FOR | | | | | | | | | | | | |
| The City of Avon Park | | | | | | | | | | | | |
| WW Improvement No.12: Replace Both Pumps, Control Panel and Install VFDs in Lift Station #17 | | | | | | | | | | | | |
| ITEM # DESCRIPTION UNIT QUANTITY UNIT PRICE | | | | | | | | | | | | |
| 1 | 1 Replace Both Pumps, Base Elbows,Control Panel and Install VFDs in LS #17 LS 1 \$ 305,646 | | | | | | | | | | | |
| | | | | SUBTOTAL | \$ | 306,000 | | | | | | |
| | | SUR | /EY, DESIGN AND P | ERMITTING (15%) | \$ | 46,000 | | | | | | |
| CONSTRUCTION ADMINISTRATION (10% | | | | | | | | | | | | |
| | | | CO | NTINGENCY (30%) | \$ | 91,800 | | | | | | |
| | | | | TOTAL | \$ | 480,000 | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein i information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or ac costs will not vary from its opinions of probable costs. | | | | | | | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | | | | | | |
|--|--|--|-----|----------------|----|---------|--|--|--|--|--|
| | FOR | | | | | | | | | | |
| The City of Avon Park | | | | | | | | | | | |
| WW Improvement No.13: Replace Both Pumps, Control Panel and Install VFDs in Lift Station #24 (Lake Byrd) | | | | | | | | | | | |
| ITEM# DESCRIPTION UNIT QUANTITY UNIT PRICE | | | | | | | | | | | |
| 1 | 1 Replace Both Pumps, Base Elbows, Control Panel and Install VFDs in LS #24 LS 1 \$ 172,546 \$ | | | | | | | | | | |
| SUBTOTA | | | | | | | | | | | |
| SURVEY, DESIGN AND PERMITTING (15% | | | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10% | | | | | | | | | | | |
| | | | CON | TINGENCY (30%) | \$ | 51,900 | | | | | |
| | | | | TOTAL | \$ | 270,000 | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided h on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that prope actual construction costs will not vary from its opinions of probable costs. | | | | | | | | | | | |
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| FOR | | | | | | | | | | | | |
|--|---|----|-----------------|----|-----------|--|--|--|--|--|--|--|
| The City of Avon Park | | | | | | | | | | | | |
| WW Improvement No.14: Upsizing of Lift Station #7 Force Main and VFD Installation | | | | | | | | | | | | |
| ITEM # DESCRIPTION UNIT QUANTITY UNIT PRICE | | | | | | | | | | | | |
| 1 Upsizing of Lift Station #7 Force Main from 6" to 10" and installing VFDs | 1 Upsizing of Lift Station #7 Force Main from 6" to 10" and installing VFDs LS 1 \$ 645.164 1 | | | | | | | | | | | |
| SUBTOT/ | | | | | | | | | | | | |
| SURVEY, DESIGN AND PERMITTING (15% | | | | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10% | | | | | | | | | | | | |
| | | CO | NTINGENCY (30%) | \$ | 193,500 | | | | | | | |
| | | | TOTAL | \$ | 1,000,000 | | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided here the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, l construction costs will not vary from its opinions of probable costs. | | | | | | | | | | | | |

| ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | | | | | | | | |
|--|------|-----------------|------------------|----|---------|--|--|--|--|--|--|--|
| FOR | | | | | | | | | | | | |
| The City of Avon Park | | | | | | | | | | | | |
| WW Improvement No.15: Upsizing of Lift Station #6 Force Main | | | | | | | | | | | | |
| EM # DESCRIPTION UNIT QUANTITY UNIT PRICE | | | | | | | | | | | | |
| 1 Upsizing 2,050 LF of Lift Station #6 Force Main from 4" to 6" LS 1 \$ 220,490 | | | | | | | | | | | | |
| | | | SUBTOTAL | \$ | 220,000 | | | | | | | |
| SURVEY, DESIGN AND PERMITTING (25' | | | | | | | | | | | | |
| | CONS | STRUCTION ADMIN | IISTRATION (10%) | \$ | 22,000 | | | | | | | |
| | | 100 | NTINGENCY (30%) | \$ | 66,000 | | | | | | | |
| | | | TOTAL | \$ | 370,000 | | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided here the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, construction costs will not vary from its opinions of probable costs. | | | | | | | | | | | | |
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| | ENGINEER'S PRELIMINARY OPINION OF PROBABLE COST | | | | | | | | | | | |
|--|---|------|----------|-----------------|----|-----------|--|--|--|--|--|--|
| | FOR | | | | | | | | | | | |
| The City of Avon Park | | | | | | | | | | | | |
| WW Improvement No.16: 20 Year Gravity Sewer Improvements | | | | | | | | | | | | |
| ITEM # | DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | | AMOUNT | | | | | | |
| 1 | 20 Year Gravity Sewer Improvements (Upsizing 925 LF of 8" to 12", 6,171 LF of 12" to 15", and 650 LF of 15" to 18") | LS | 1 | \$ 2,704,027 | \$ | 2,704,027 | | | | | | |
| SUBTOTAL | | | | | | | | | | | | |
| SURVEY, DESIGN AND PERMITTING (15%) | | | | | | | | | | | | |
| CONSTRUCTION ADMINISTRATION (10%) | | | | | | | | | | | | |
| | | | CON | ITINGENCY (30%) | \$ | 811,200 | | | | | | |
| | | | | TOTAL | \$ | 4,200,000 | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or costs will not vary from its opinions of probable costs. | | | | | | | | | | | | |
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APPENDIX B: Lift Station Capacity Analysis

| | | | | | | Avon I | Park Lift Station | Capacity A | nalysis | | | | | | | | |
|----------------------|---|-----------------------------|---|--------------------|---------------|-----------------------------|---|-----------------------|---------------|--------------------------------|---|--------------------|---------------|-----------------------------|---|-----------------------|---------------|
| | | E | xisting Wastewa | ater Flows | | 5-1 | ear Projected W | /astewater | | 10-Y | 10-Year Projected Wastewater Flows | | | | ar Projected Wast | tewater Flo | ws |
| Lift Station No | Contributing Lift Stations | AADF Influent Flow (gpm) | Total Peak Hour Influent Flow (gpm) | Pump Flow (gpm) | % Capacity | AADF Influent Flow (gpm) | Total Peak Hour Influent Flow (gpm) | Pump Flow (gpm) | % Capacity | AADF Influent Flow (gpm) | Total Peak Hour Influent Flow (gpm) | Pump Flow (gpm) | % Capacity | AADF Influent Flow (gpm) | Total Peak Hour Influent Flow (gpm) | Pump Flow (gpm) | % Capacity |
| LS1 | | 36 | 136 | 407 | 33% | 36 | 136 | 407 | 33% | 50 | 184 | 407 | 45% | 104 | 359 | 407 | 88% |
| LS3 | LS17, LS18, LS19, LS32 | 553 | 1530 | 1,103 | 69% | 567 | 1562 | 1,103 | 71% | 594 | 1624 | 1,103 | 74% | 621 | 1687 | 1,103 | 76% |
| LS4 | | 1 | 6 | 135 | 5% | 1 | 6 | 135 | 5% | 1 | 6 | 135 | 5% | 1 | 6 | 135 | 5% |
| LS5 | | 6 | 23 | 109 | 21% | 6 | 23 | 109 | 21% | 6 | 23 | 109 | 21% | 6 | 23 | 109 | 21% |
| LS6 | LS21 | 27 | 104 | 135 | 77% | 49 | 181 | 135 | 134% | 72 | 257 | 135 | 190% | 129 | 436 | 135 | 323% |
| LS7 | LS1, LS24 | 55 | 202 | 276 | 73% | 70 | 253 | 307 | 82% | 128 | 433 | 340 | 127% | 280 | 856 | 1100 | 78% |
| LS8 | LS9 | 101 | 350 | 367 | 95% | 124 | 420 | 456 | 92% | 136 | 456 | 456 | 100% | 152 | 502 | 456 | 110% |
| LS9 | LS36 | 10 | 39 | 130 | 30% | 21 | 81 | 130 | 63% | 21 | 83 | 130 | 64% | 27 | 103 | 130 | 79% |
| LS10 | | 3 | 13 | 64 | 21% | 3 | 13 | 64 | 21% | 3 | 13 | 64 | 21% | 3 | 13 | 64 | 21% |
| LS11 | | 1 | 3 | 219 | 1% | 1 | 4 | 219 | 2% | 1 | 5 | 219 | 2% | 1 | 6 | 219 | 3% |
| LS12 | | 1 | 6 | 180 | 3% | 1 | 6 | 180 | 3% | 1 | 6 | 180 | 3% | 1 | 6 | 180 | 3% |
| LS13 | | 14 | 55 | 119 | 46% | 16 | 64 | 119 | 54% | 18 | 70 | 119 | 59% | 20 | 81 | 119 | 68% |
| LS14 | | 1 | 3 | 29 | 9% | 1 | 3 | 29 | 9% | 1 | 3 | 29 | 9% | 1 | 3 | 29 | 9% |
| LS15 | | 50 | 186 | 425 | 44% | 69 | 249 | 425 | 59% | 96 | 334 | 425 | 79% | 124 | 420 | 425 | 99% |
| LS16 | | 3 | 14 | 173 | 8% | 5 | 20 | 173 | 12% | 6 | 25 | 173 | 15% | 20 | 77 | 173 | 45% |
| LS17 | LS6, LS11, LS12, LS13, LS14, LS15, LS16 | 250 | 776 | 920 | 84% | 349 | 1036 | 1,400 | 74% | 486 | 1372 | 1,400 | 98% | 665 | 1786 | 1,400 | 128% |
| LS18 | LS4, LS5, LS7, LS8, LS10, LS22, LS23, LS33 | 243 | 759 | 650 | 117% | 281 | 859 | 1200 | 72% | 323 | 970 | 1200 | 81% | 410 | 1188 | 1200 | 99% |
| LS19 | | 4 | 18 | 430 | 4% | 18 | 71 | 390 | 18% | 43 | 160 | 300 | 53% | 68 | 246 | 255 | 96% |
| LS20 | LS26 | 37 | 140 | 543 | 26% | 37 | 140 | 543 | 26% | 37 | 140 | 543 | 26% | 37 | 141 | 543 | 26% |
| LS21 | LS30 | 8 | 33 | 193 | 17% | 12 | 49 | 193 | 25% | 13 | 53 | 193 | 28% | 35 | 132 | 193 | 68% |
| LS22 | | 1 | 5 | 69 | 7% | 0 | 0 | 69 | 0% | 0 | 0 | 69 | 0% | 0 | 0 | 69 | 0% |
| LS23 | | 1 | 5 | 30 | 15% | 0 | 0 | 30 | 0% | 0 | 0 | 30 | 0% | 0 | 0 | 30 | 0% |
| LS24 | LS37 | 9 | 37 | 292 | 13% | 19 | 75 | 292 | 26% | 34 | 129 | 292 | 44% | 115 | 393 | 292 | 135% |
| LS26 | LS27 | 36 | 136 | 157 | 87% | 36 | 136 | 157 | 87% | 36 | 136 | 157 | 87% | 36 | 136 | 157 | 87% |
| LS27 | LS28 | 6 | 26 | 35 | 74% | 6 | 26 | 35 | 74% | 6 | 26 | 35 | 74% | 6 | 26 | 35 | 74% |
| LS28 | | 3 | 12 | 76 | 16% | 3 | 12 | 76 | 16% | 3 | 12 | 76 | 16% | 3 | 12 | 76 | 16% |
| LS29 | LS31 | 1 | 3 | 67 | 5% | 1 | 3 | 67 | 5% | 1 | 3 | 67 | 5% | 1 | 3 | 67 | 5% |
| LS30 | LS29 | 8 | 32 | 141 | 22% | 8 | 32 | 141 | 23% | 8 | 32 | 141 | 23% | 23 | 89 | 141 | 63% |
| LS31 | | 1 | 5 | 74 | 6% | 0 | 0 | 74 | 0% | 0 | 0 | 74 | 0% | 0 | 0 | 74 | 0% |
| LS32 | LS34 | 56 | 205 | 846 | 24% | 56 | 205 | 846 | 24% | 58 | 212 | 846 | 25% | 60 | 219 | 846 | 26% |
| LS33 | | 4 | 18 | 72 | 26% | 5 | 22 | 72 | 31% | 5 | 22 | 72 | 31% | 6 | 24 | 72 | 33% |
| LS34 | | 8 | 32 | 247 | 13% | 8 | 32 | 247 | 13% | 8 | 32 | 247 | 13% | 8 | 32 | 247 | 13% |
| LS36 | | 2 | 10 | 41 | 24% | 2 | 10 | 41 | 24% | 2 | 10 | 41 | 24% | 2 | 10 | 41 | 24% |
| LS37 | | 9 | 37 | 70 | 52% | 9 | 38 | 70 | 54% | 9 | 38 | 70 | 54% | 9 | 38 | 70 | 55% |
| Note: Pump flow prov | vided was the designed pum | p flow, pump fl | ow recorded fro | m drawdowr | n test, or m | odeled flow, wh | nichever was leas | st. | | • | | | • | • | | | |
| Pump flows increased | I due to downstream force r | main improveme | ents | | | | | | | | | | | | | | |



APPENDIX C: FDEP Permit



FLORIDA DEPARTMENT OF Environmental Protection

South District Office 2295 Victoria Ave, Suite 364 Ft. Myers, Florida 33901-3875 Ron DeSantis Governor

Jeanette Nuñez Lt. Governor

Noah Valenstein Secretary

March 16, 2021

In the Matter of an Application for Permit by:

City of Avon Park Rick Whalen 110 E Main St Avon Park, Florida 33825-3945 <u>rwhalen@avonpark.cc</u> <u>Highlands County – Domestic Wastewater</u>

File Number FLA014313-016-DW1P City of Avon Park WWTP

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number FLA014313-016 to operate the City of Avon Park WWTP. This permit is accompanied by Administrative Order Number AO-014313-016 to provide the permittee a schedule to come into compliance with groundwater requirements. This permit and Order are issued under Chapter 403, Florida Statutes.

Monitoring requirements under this permit are effective on July 1, 2021. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements.

NOTICE OF RIGHTS

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even denial of the application.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;
City of Avon Park WWTP FLA014313-016-DW1P Page 2

- (b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@FloridaDEP.gov. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant and persons entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first. You cannot justifiably rely on the finality of this decision unless notice of this decision and the right of substantially affected persons to challenge this decision has been duly published or otherwise provided to all persons substantially affected by the decision. While you are not required to publish notice of this action, you may elect to do so pursuant Rule 62-110.106(10)(a), F.A.C.

The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C. If you do not publish notice of this action, this waiver may not apply to persons who have not received a clear point-of-entry.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time.

City of Avon Park WWTP FLA014313-016-DW1P Page 3

Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@FloridaDEP.gov, before the deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

Mediation is not available in this proceeding.

Judicial Review

Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department in the Office of General Counsel (Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000) and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days from the date this action is filed with the Clerk of the Department.

EXECUTION AND CLERKING

Executed in Ft. Myers, Florida. STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Jon M. Iglehart Director of District Management

Attachments:

- 1. Permit No. FLA014313-016
- 2. Administrative Order No. AO-014313-016

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this document and all attachments were sent on the filing date below to the following listed persons:

Jamison R. Tondreault, PE, Kimely-Horn and Associates, Inc., jamison.tondreault@kimleyhorn.com City of Avon Park WWTP FLA014313-016-DW1P Page 4

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

<u>March 16, 2021</u> Date



FLORIDA DEPARTMENT OF Environmental Protection

South District Office 2295 Victoria Ave, Suite 364 Ft. Myers, Florida 33901-3875

STATE OF FLORIDA DOMESTIC WASTEWATER FACILITY PERMIT

PERMITTEE: City of Avon Park

RESPONSIBLE OFFICIAL: Rick Whalen, P.E., Public Works Director 110 E. Main St Avon Park, Florida 33825-3945 (863) 452-4400 rwhalen@avonpark.cc PERMIT NUMBER: FILE NUMBER: ISSUANCE DATE: EFFECTIVE DATE: EXPIRATION DATE:

FLA014313 FLA014313-016-DW1P March 16, 2021 May 10, 2021 May 9, 2026

FACILITY:

City of Avon Park WWTF US Highway 27 S. Avon Park, FL 33825 Highlands County Latitude: 27°33' 36.5343" N Longitude: 81°31' 2.4283" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and applicable rules of the Florida Administrative Code (F.A.C.). This permit does not constitute authorization to discharge wastewater other than as expressly stated in this permit. This permit is accompanied by an Administrative Order, pursuant to paragraphs 403.088(2)(e) and (f), Florida Statutes. Compliance with Administrative Order, AO-014313-016, is a specific requirement of this permit. The above-named permittee is hereby authorized to operate the facilities in accordance with the documents attached hereto and specifically described as follows:

WASTEWATER TREATMENT:

Operate an existing 1.50 million gallons per day (MGD) design capacity wastewater treatment plant (WWTP) annual average daily flow (AADF) extended aeration process. The WWTP consists of: pretreatment works with a mechanical micro-screen and aerated grit channel system, two concrete oxidation ditches with a total capacity of 1,500,000 gallons, dual clarifiers for a total of 416,000 gallons, RAS/WAS pump station, dual holding tanks for a total of 90,000 gallons, dual sludge drying beds and a single 49,000 gallon chlorine contact chamber. Disinfection is accomplished using liquid sodium hypochlorite. This facility also has automated septage processing equipment to manage their own and other WWTP facilities biosolids. The maximum capacity of the screw press is 250 dry pounds per hour and 1,095 dry tons per year. All of the filtrate from the press will be pumped back to the headworks of the wastewater treatment facility.

The permittee is authorized to demolish and replace the headworks with the following configuration: mechanical bar screen in a stainless steel channel, a bypass channel with manual bypass screen, grit removal system, lamella plate separator, grease removal system grit classifier screw and associated appurtenances.

REUSE OR DISPOSAL:

Land Application R-001: An existing 1.85 MGD annual average daily flow permitted capacity rapid infiltration basin system. R-001 is a reuse system which consists of an existing 1.85 MGD annual average daily flow (AADF) capacity rapid rate land application system (R-001) consisting of eight evaporation/percolation ponds. R-001 is located approximately at latitude 27°33' 38" N, longitude 81°31' 3" W.

IN ACCORDANCE WITH: The limitations, monitoring requirements, and other conditions set forth in this cover sheet and Part I through Part IX on pages 1 through 18 of this permit.

Ron DeSantis Governor

Jeanette Nuñez Lt. Governor

Noah Valenstein Secretary

I. RECLAIMED WATER AND EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Reuse and Land Application Systems

1. During the period beginning on the effective date and lasting through the expiration date of this permit, the permittee is authorized to direct reclaimed water to Reuse System R-001. Such reclaimed water shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.B.6:

| | | | | aimed Water Limitations | Mon | | | |
|---|---------|--------------------------|------------------------------|--|---|----------|------------------------------|------------------------------|
| Parameter | Units | Max. /Min | Limit | Statistical Basis | Frequency of Analysis Sample Type | | Monitoring Site Number | Notes |
| Flow | MGD | Max Max | 1.85 Report | Annual Average Monthly Average | Continuous Recording Flow Meter with Totalizer | | FLW-1 | See I.A.4 |
| BOD, Carbonaceous 5 day, 20C | mg/L | Max Max Max Max | 20.0 30.0 45.0 60.0 | Annual Average Monthly Average Weekly Average Single Sample | Weekly | 8-hr FPC | EFA-1 | |
| Solids, Total Suspended | mg/L | Max Max Max Max | 20.0 30.0 45.0 60.0 | Annual Average Monthly Average Weekly Average Single Sample | Weekly | 8-hr FPC | EFA-1 | |
| Coliform, Fecal | #/100mL | Max Max Max Max | 200 200 400 800 | Annual Average Monthly Geometric Mean 90th Percentile Single Sample | Weekly | Grab | EFA-1 | See I.A.5 and I.A.6 |
| рН | s.u. | Min Max | 6.0 8.5 | Single Sample Single Sample | Continuous | Meter | EFA-1 | See I.A.3 |
| Chlorine, Total Residual (For Disinfection) | mg/L | Min | 0.5 | Single Sample | Continuous | Meter | EFA-1 | See I.A.7 and I.A.3 |
| Nitrogen, Nitrate, Total (as N) | mg/L | Max | 12.0 | Single Sample | Weekly | 8-hr FPC | EFA-1 | |
| Nitrogen, Total | mg/L | Max | Report | Single Sample | Quarterly | Grab | EFA-1 | |
| Phosphorus, Total (as P) | mg/L | Max | Report | Single Sample | Quarterly | Grab | EFA-1 | |

2. Reclaimed water samples shall be taken at the monitoring site locations listed in Permit Condition I.A.1. and as described below:

| Monitoring Site Number | Description of Monitoring Site |
|------------------------|---|
| FLW-1 | Flow measurement: Effluent flow meter (ultrasonic) with recorder and totalizer located near the overflow weir at the discharge of the chlorine contact chamber. |
| EFA-1 | Effluent sample taken at discharge from CCC and prior to reclaimed water entering the disposal distribution line. |

- 3. Hourly measurement of pH and total residual chlorine for disinfection during the period of required operator attendance may be substituted for continuous measurement. [62-600.660(1)]
- 4. A recording flow meter with totalizer shall be utilized to measure flow and calibrated at least once every 12 months. *[62-600.200(25)]*

- 5. The effluent limitation for the monthly geometric mean for fecal coliform is only applicable if 10 or more values are reported. If fewer than 10 values are reported, the monthly geometric mean shall be calculated and reported on the Discharge Monitoring Report to be used to calculate the annual average. All other fecal coliform effluent limitations included in permit condition I.A.1 apply regardless of the number of values reported. [62-600.440(5)(b)]
- 6. To report the "90th percentile,"
 - a. Place the bacteria results in ascending order (from lowest to highest value) and assign each sample a number, 1 for the lowest value.
 - b. Multiply the total number of samples by 0.9 to determine the 90th percentile level.
 - c. Report the value of the sample that corresponds to the 90th percentile level (e.g., 10 samples x 0.9 = 9, report the value of the 9th sample). If the 90th percentile level is not a whole number, rounding or interpolation should be used to determine the 90th percentile. When rounding, round down to the nearest whole number if the decimal is 0.4 or lower, and round up to the nearest whole number if the decimal is 0.5 or higher (e.g., 12 samples x 0.9 = 10.8, report the value of the 11th sample if rounding).

[62-600.440(5)(a)3]

7. Total residual chlorine must be maintained for a minimum contact time of 15 minutes based on peak hourly flow. [62-610.510][62-600.440(5)(c) and (6)(b)]

B. Other Limitations and Monitoring and Reporting Requirements

1. During the period beginning on the effective date and lasting through the expiration date of this permit, the treatment facility shall be limited and monitored by the permittee as specified below and reported in accordance with condition I.B.6:

| | | | | Limitations | Mon | | | |
|--|---------|--------------|--------|-------------------|-----------------------|-------------|------------------------------|--------------|
| Parameter | Units | Max. /Min | Limit | Statistical Basis | Frequency of Analysis | Sample Type | Monitoring Site Number | Notes |
| Percent Capacity, (TMADF/Permitted Capacity) x 100 | percent | Max | Report | Monthly Average | Monthly | Calculated | CAL-1 | |
| BOD, Carbonaceous 5 day, 20C (Influent) | mg/L | Max | Report | Single Sample | Weekly | 8-hr FPC | INF-1 | See I.B.3 |
| Solids, Total Suspended (Influent) | mg/L | Max | Report | Single Sample | Weekly | 8-hr FPC | INF-1 | See I.B.3 |

2. Samples shall be taken at the monitoring site locations listed in Permit Condition I.B.1. and as described below:

| Monitoring Site Number | Description of Monitoring Site |
|------------------------|---|
| CAL-1 | Calculated from flow measurements. |
| INF-1 | Influent sample taken at the headworks of the WWTF. |

- 3. Influent samples shall be collected so that they do not contain digester supernatant or return activated sludge, or any other plant process recycled waters. [62-600.660(4)(a)]
- 4. The sample collection, analytical test methods, and method detection limits (MDLs) applicable to this permit shall be conducted using a sufficiently sensitive method to ensure compliance with applicable water quality standards and effluent limitations and shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-600, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantitation limits), which is titled "FAC 62-4 MDL/PQL Table (November 10, 2020)" is available at https://floridadep.gov/dear/quality-

assurance/content/quality-assurance-resources. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:

- a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;
- b. The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide an MDL, which is equal to or less than the applicable water quality criteria stated in 62-302, F.A.C.; and
- c. If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

When the analytical results are below method detection or practical quantitation limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

Where necessary, the permittee may request approval of alternate methods or for alternative MDLs or PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the above-referenced list is not necessary if the analytical method is approved in accordance with 40 CFR 136 or deemed acceptable by the Department. *[62-4.246, 62-160]*

- 5. The permittee shall provide safe access points for obtaining representative samples which are required by this permit. [62-600.650(2)]
- 6. Monitoring requirements under this permit are effective on the first day of the second month following the effective date of the permit. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements. If not already registered to use the Department's Ez Discharge Monitoring Report (EzDMR) system, the permittee should register now in order to begin using the EzDMR system when the monitoring requirements under this permit are effective. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e. monthly, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this permit. Unless specified otherwise in this permit, monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below. DMRs shall be submitted for each required monitoring period including periods of no discharge.

| REPORT Type on DMR | Monitoring Period | Submit by |
|--------------------|--|-----------------------------|
| Monthly | First day of month - last day of month | 28th day of following month |
| Quarterly | January 1 - March 31 | April 28 |
| | April 1 - June 30 | July 28 |
| | July 1 - September 30 | October 28 |
| | October 1 - December 31 | January 28 |
| Semiannual | January 1 - June 30 | July 28 |
| | July 1 - December 31 | January 28 |
| Annual | January 1 - December 31 | January 28 |

The permittee shall submit the completed DMR to the Department by the twenty-eighth (28th) of the month following the month of operation. Please contact the Department at (239) 344-5600 if you are unable to submit the completed DMR electronically using the EzDMR system.

The Department electronic EzDMR system at the time of permit issuance is available through the DEP Business Portal at: <u>http://www.fldepportal.com/go/submit-report/</u>

[62-620.610(18)][62-600.680(1)]

- 7. During the period of operation authorized by this permit, reclaimed water or effluent shall be monitored annually for the primary and secondary drinking water standards contained in Chapter 62-550, F.A.C., (except for asbestos, total coliform, color, odor, and residual disinfectants). These monitoring results shall be reported to the Department annually on the DMR. During years when a permit is not renewed, a certification stating that no new non-domestic wastewater dischargers have been added to the collection system since the last reclaimed water or effluent analysis was conducted may be submitted with the signed DMR in lieu of performing the analysis. When such a certification is submitted with the DMR, monitoring not required this period should be noted on the DMR. The annual reclaimed water or effluent analysis report, and certification if applicable, shall be completed and submitted in a timely manner so as to be received by the Department at the address identified on the DMR by January 28 of each year. Approved analytical methods identified in Rule 62-620.100(3)(j), F.A.C., shall be used for the analysis. If no method is included for a parameter, methods specified in Chapter 62-550, F.A.C., shall be used. *[62-600.660(2) and (3)(d)][62-600.680(2)][62-610.300(4)]*
- 8. The permittee shall submit an Annual Reuse Report using DEP Form 62-610.300(4)(a)2. on or before January 1 of each year. [62-610.870(3)]
- 9. Except as otherwise specified in this permit, all reports and other information required by this permit, including 24-hour notifications, shall be submitted to the Department in a digital format when practicable. The Department's electronic mailing address is:

SouthDistrict@FloridaDEP.gov

Please contact the Department at (239) 344-5600 if you are unable to submit electronically.

[62-620.610(11)]

10. All reports and other information shall be signed in accordance with the requirements of Rule 62-620.305, F.A.C. *[62-620.305]*

II. BIOSOLIDS MANAGEMENT REQUIREMENTS

A. Basic Requirements

- 1. Biosolids generated by this facility may be Landfill and/or transferred to unknown or disposed of in a Class I solid waste landfill. Transferring biosolids to an alternative biosolids treatment facility does not require a permit modification. However, use of an alternative biosolids treatment facility requires submittal of a copy of the agreement pursuant to Rule 62-640.880(1)(c), F.A.C., along with a written notification to the Department at least 30 days before transport of the biosolids. *[62-620.320(6), 62-640.880(1)]*
- 2. The permittee shall monitor and keep records of the quantities of biosolids generated, received from source facilities, treated, distributed and marketed, land applied, used as a biofuel or for bioenergy, transferred to another facility, or landfilled. These records shall be kept for a minimum of five years. [62-640.650(4)(a)]
- 3. Biosolids quantities shall be monitored by the permittee as specified below. Results shall be reported on the permittee's Discharge Monitoring Report for Monitoring Group RMP-Q in accordance with Condition I.B.6:

PERMITTEE:City of Avon ParkFACILITY:City of Avon Park WWTP

PERMIT NUMBER: PA FILE NUMBER:

FLA014313 FLA014313-016-DW1P

| | | | | Biosolids Limitation | Mon | | | |
|-------------------------------------|----------|--------------|--------|---------------------------------|---------|-------------|------------------------------|-------|
| Parameter | Units | Max. /Min | Limit | F Limit Statistical Basis of | | Sample Type | Monitoring Site Number | Notes |
| Biosolids Quantity (Received) | dry tons | Max | Report | Monthly Total | Monthly | Calculated | RMP-2 | |
| Biosolids Quantity (Landfilled) | dry tons | Max | Report | Monthly Total | Monthly | Calculated | RMP-1 | |
| Biosolids Quantity (Transferred) | dry tons | Max | Report | Monthly Total | Monthly | Calculated | RMP-1 | |

[62-640.650(5)(a)1]

4. Biosolids quantities shall be calculated as listed in Permit Condition II.3 and as described below:

| Monitoring Site Number | Description of Monitoring Site Calculations |
|------------------------|---|
| RMP-1 | Biosolids sent out |
| RMP-2 | Biosolids received |

- 5. The treatment, management, transportation, use, land application, or disposal of biosolids shall not cause a violation of the odor prohibition in subsection 62-296.320(2), F.A.C. [62-640.400(6)]
- 6. Storage of biosolids or other solids at this facility shall be in accordance with the Facility Biosolids Storage Plan. [62-640.300(4)]
- 7. Biosolids shall not be spilled from or tracked off the treatment facility site by the hauling vehicle. [62-640.400(9)]

B. Disposal

1. Disposal of biosolids, septage, and "other solids" in a solid waste disposal facility, or disposal by placement on land for purposes other than soil conditioning or fertilization, such as at a monofill, surface impoundment, waste pile, or dedicated site, shall be in accordance with Chapter 62-701, F.A.C. [62-640.100(6)(b) & (c)]

C. Transfer

- 1. The permittee shall not be held responsible for treatment and management violations that occur after its biosolids have been accepted by a permitted biosolids treatment facility with which the source facility has an agreement in accordance with subsection 62-640.880(1)(c), F.A.C., for further treatment, management, or disposal. [62-640.880(1)(b)]
- 2. The permittee shall keep hauling records to track the transport of biosolids between the facilities. The hauling records shall contain the following information:

Source Facility

- 1. Date and time shipped
- 2. Amount of biosolids shipped
- 3. Degree of treatment (if applicable)
- 4. Name and ID Number of treatment facility
- 5. Signature of responsible party at source facility
- 6. Signature of hauler and name of hauling firm

Biosolids Treatment Facility or Treatment Facility

- 1. Date and time received
- 2. Amount of biosolids received
- 3. Name and ID number of source facility
- 4. Signature of hauler
- 5. Signature of responsible party at treatment facility

A copy of the source facility hauling records for each shipment shall be provided upon delivery of the biosolids to the biosolids treatment facility or treatment facility. The treatment facility permittee shall report to the Department within 24 hours of discovery any discrepancy in the quantity of biosolids leaving the source facility and arriving at the biosolids treatment facility or treatment facility.

[62-640.880(4)]

D. Receipt

- 1. The permittee shall be responsible for proper treatment, management, and disposition of biosolids accepted from source facilities. [62-640.880(1)(a)]
- 2. The permittee shall enter into a written agreement with each source facility that it intends to receive biosolids from. The agreement shall address the quality and quantity of the biosolids accepted by the permittee. The agreement shall include a statement, signed by the permittee, as to the availability of sufficient permitted capacity to receive the biosolids from the source facility, and indicating that the permittee will continue to operate in compliance with the requirements of its permit. The agreement shall also address responsibility during transport of biosolids between the facilities. The permittee shall submit a copy of this agreement to the Department's South District Office at least 30 days before transporting biosolids from the source facility to the permittee. [62-640.880(1)(c)]

III. GROUND WATER REQUIREMENTS

A. Construction Requirements

- 1. The permittee shall give at least 72-hour notice to the Department's South District Office, prior to the installation of any monitoring wells. [62-520.600(6)(h)]
- Before construction of new ground water monitoring wells, a soil boring shall be made at each new monitoring well location to properly determine monitoring well specifications such as well depth, screen interval, screen slot, and filter pack. [62-520.600(6)(g)]
- 3. Within 30 days after installation of a monitoring well, the permittee shall submit to the Department's South District Office well completion reports and soil boring/lithologic logs on DEP Form 62-520.900(3), Monitoring Well Completion Report. [62-520.600(6)(j) and .900(3)]
- 4. All piezometers and monitoring wells not part of the approved ground water monitoring plan shall be plugged and abandoned in accordance with Rule 62-532.500(5), F.A.C., unless future use is intended. [62-532.500(5)]

B. Operational Requirements

- 1. For the Part IV land application system(s), all ground water quality criteria specified in Chapter 62-520, F.A.C., shall be met at the edge of the zone of discharge. The zone of discharge for Land Application Site R-001 shall extend horizontally 100 or to the facilities property line, whichever is less and vertically to the base of the shallow water table aquifer. [62-520.200(27)] [62-520.465]
- 2. The ground water minimum criteria specified in Rule 62-520.400 F.A.C., shall be met within the zone of discharge. [62-520.400 and 62-520.420(4)]
- 3. If the concentration for any constituent listed in Permit Condition III.6. in the natural background quality of the ground water is greater than the stated maximum, or in the case of pH is also less than the minimum, the representative background quality shall be the prevailing standard. *[62-520.420(2)]*
- 4. During the period of operation authorized by this permit, the permittee shall continue to sample ground water at the monitoring wells identified in Permit Condition III.5., below in accordance with this permit and the

approved ground water monitoring plan prepared in accordance with Rule 62-520.600, F.A.C. [62-520.600] [62-610.510]

5. The following monitoring wells shall be sampled for Reuse System R-001 located at Land Application Site RIB-001:

| Monitoring Well | Alternate Well Name and/or Description of Monitoring | | | Depth | Aquifer | | New or |
|-----------------|---|------------|------------|--------|-----------|--------------|----------|
| ID | Location | Latitude | Longitude | (Feet) | Monitored | Well Type | Existing |
| MWC-20805 | MONITORING WELL #4 | 27°30' 39" | 81°30' 45" | 15 | Surficial | Compliance | Existing |
| MWC-151292 | NE corner compliance well | 24°35' 27" | 83°51' 3" | 40 | Surficial | Compliance | Existing |
| MWC-20806 | MONITORING WELL #3 | 27°30' 40" | 81°30' 45" | 15 | Surficial | Compliance | Existing |
| MWC-20807 | MONITORING WELL #2 | 27°30' 40" | 81°30' 58" | 15 | Surficial | Compliance | Existing |
| MWB-151297 | Background well Northwest of North pond | 24°35' 27" | 83°51' 4" | 40 | Surficial | Background | Existing |
| MWB-151298 | Background well Southwest of South pond | 24°35' 26" | 83°51' 4" | 40 | Surficial | Background | Existing |
| MWB-20808 | MONITORING WELL #1 | 27°31' 34" | 81°31' 10" | 15 | Surficial | Background | Existing |
| MWC-151293 | SE corner compliance well | 24°35' 26" | 83°51' 3" | 40 | Surficial | Compliance | Existing |
| MWI-151295 | Intermediate well west of North pond | 24°35' 27" | 83°51' 4" | 40 | Surficial | Intermediate | Existing |
| MWI-151296 | Intermediate well West of South pond | 24°35' 26" | 81°51' 4" | 40 | Surficial | Intermediate | Existing |
| MWI-151294 | Intermediate well between the 2 ponds | 24°35' 26" | 81°51' 3" | 40 | Surficial | Intermediate | Existing |

[62-520.600] [62-610.510]

6. The following parameters shall be analyzed for each monitoring well identified in Permit Condition III.5.:

| Parameter | Compliance Well Limit | Units | Sample Type | Monitoring Frequency |
|-------------------------------|--------------------------|---------|-------------|-------------------------|
| Water Level Relative to NGVD | Report | ft | Grab | Quarterly |
| Nitrogen, Nitrate, Dissolved | Report | mg/L | Grab | Quarterly |
| Solids, Total Dissolved (TDS) | 500 | mg/L | Grab | Quarterly |
| Arsenic, Total Recoverable | 0.010 | mg/L | Grab | Quarterly |
| Chloride (as Cl) | 250 | mg/L | Grab | Quarterly |
| Cadmium, Total Recoverable | 0.005 | mg/L | Grab | Quarterly |
| Chromium, Total Recoverable | 0.1 | mg/L | Grab | Quarterly |
| Lead, Total Recoverable | 0.015 | mg/L | Grab | Quarterly |
| Coliform, Fecal | 4 | #/100mL | Grab | Quarterly |
| pН | 6.5 - 8.5 | s.u. | In Situ | Quarterly |
| Sulfate, Total | 250 | mg/L | Grab | Quarterly |
| Turbidity | Report | NTU | Grab | Quarterly |
| Nitrogen, Total | 3 | mg/L | Grab | Quarterly |
| Phosphorus, Total (as P) | 1 | Mg/L | Grab | Quarterly |

[62-520.600(11)(b)] [62-600.670] [62-600.650(3)] [62-520.310(5)]

- 7. Water levels shall be recorded before evacuating each well for sample collection. Elevation references shall include the top of the well casing and land surface at each well site (NAVD allowable) at a precision of plus or minus 0.01 foot. [62-520.600(11)(c)] [62-610.510(3)(b)]
- 8. Ground water monitoring wells shall be purged prior to sampling to obtain representative samples. [62-160.210] [62-600.670(3)]

- 9. Analyses shall be conducted on unfiltered samples, unless filtered samples have been approved by the Department's South District Office as being more representative of ground water conditions. [62-520.310(5)]
- 10. Ground water monitoring test results shall be submitted on Part D of Form 62-620.910(10) in accordance with Permit Condition I.B.6. [62-520.600(11)(b)] [62-600.670] [62-600.680(1)] [62-620.610(18)]
- 11. If any monitoring well becomes inoperable or damaged to the extent that sampling or well integrity may be affected, the permittee shall notify the Department's South District Office within two business days from discovery, and a detailed written report shall follow within ten days after notification to the Department. The written report shall detail what problem has occurred and remedial measures that have been taken to prevent recurrence or request approval for replacement of the monitoring well. All monitoring well design and replacement shall be approved by the Department's South District Office before installation. [62-520.600(6)(l)]
- 12. The permittee shall sample the monitoring wells listed in Section III.B.5 above for the primary and secondary drinking water parameters included in Rules 62-550.310 and 62-550.320, F.A.C., (except for asbestos and all parameters in Table 5 of Chapter 62-550, F.A.C., other than Di(2-ethylhexyl) adipate and Di(2-ethylhexyl) phthalate). Results of this sampling shall be submitted to the Department's South District Office with the application for permit renewal. Sampling shall occur no sooner than 180 days before submittal of the renewal application. *[62-520.600(5)(b)]*

IV. ADDITIONAL REUSE AND LAND APPLICATION REQUIREMENTS

A. Part IV Rapid Infiltration Basins

- 1. Advisory signs shall be posted around the site boundaries to designate the nature of the project area. [62-610.518]
- 2. The maximum annual average loading rate to land application system shall be limited to 3 inches per day (as applied to the entire bottom area). [62-610.523(3)]
- 3. Each of the ponds in R-001 shall be loaded for 7 days and shall be rested for 7 days and shall be allowed to dry during the resting portion of the cycle.[62-610.523(4)]
- 4. Rapid infiltration basins shall be routinely maintained to control vegetation growth and to maintain percolation capability by scarification or removal of deposited solids. Basin bottoms shall be maintained to be level. [62-610.523(6) and (7)]
- 5. Routine aquatic weed control and regular maintenance of storage pond embankments and access areas are required. [62-610.514 and 62-610.414]
- 6. Overflows from emergency discharge facilities on storage ponds or on infiltration ponds, basins, or trenches shall be reported as abnormal events in accordance with Permit Condition IX.20. [62-610.800(9)]

V. OPERATION AND MAINTENANCE REQUIREMENTS

A. Staffing Requirements

1. During the period of operation authorized by this permit, the wastewater facilities shall be operated under the supervision of one or more operators certified in accordance with Chapter 62-602, F.A.C. In accordance with Chapter 62-699, F.A.C., this facility is a Category III, Class C facility and, at a minimum, operators with appropriate certification must be on the site as follows:

A Class C or higher operator 6 hours/day for 5 days/week and one visit on each weekend day. The lead/chief operator must be a Class C operator, or higher.

2. An operator meeting the lead/chief operator class for the plant shall be available during all periods of plant operation. "Available" means able to be contacted as needed to initiate the appropriate action in a timely manner. [62-699.311(1)]

B. Capacity Analysis Report and Operation and Maintenance Performance Report Requirements

- 1. The application to renew this permit shall include an updated capacity analysis report prepared in accordance with Rule 62-600.405, F.A.C. [62-600.405(5)]
- 2. The application to renew this permit shall include a detailed operation and maintenance performance report prepared in accordance with Rule 62-600.735, F.A.C. [62-600.735(1)]

C. Recordkeeping Requirements

- 1. The permittee shall maintain the following records and make them available for inspection at the following address: on the site of the permitted facility.
 - a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;
 - b. Copies of all reports required by this permit for at least three years from the date the report was prepared;
 - c. Records of all data, including reports and documents, used to complete the application for this permit for at least three years from the date the application was filed;
 - d. Monitoring information, including a copy of the laboratory certification showing the laboratory certification number, related to the residuals use and disposal activities for the time period set forth in Chapter 62-640, F.A.C., for at least three years from the date of sampling or measurement;
 - e. A copy of the current wastewater facility permit;
 - f. Copies of the current operation and maintenance manuals for the wastewater facility and the collection/transmission systems owned or operated by the wastewater facility permittee as required by Chapters 62-600 and 62-604, F.A.C.;
 - g. A copy of any required record drawings for the wastewater facility and the collection/transmission systems owned or operated by the wastewater facility permittee;
 - h. Copies of the licenses of the current certified operators;
 - i. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules. The logs shall, at a minimum, include identification of the plant; the signature and license number of the operator(s) and the signature of the person(s) making any entries; date and time in and out; specific operation and maintenance activities, including any preventive maintenance or repairs made or requested; results of tests performed and samples taken, unless documented on a laboratory sheet; and notation of any notification or reporting completed in accordance with Rule 62-602.650(3), F.A.C. The logs shall be maintained on-site in a location accessible to 24-hour inspection, protected from weather damage, and current to the last operation and maintenance performed; and
 - j. Records of biosolids quantities, treatment, monitoring, and hauling for at least five years.

[62-620.350, 62-604.500, 62-602.650, 62-640.650(4)]

VI. SCHEDULES

- 1. In accordance with section 403.088(2)(e) and (f), Florida Statutes, a compliance schedule for this facility is contained in Administrative Order AO-014313-016 which is hereby incorporated by reference.
- 2. The permittee is not authorized to discharge to waters of the state after the expiration date of this permit, unless:

- a. The permittee has applied for renewal of this permit at least 180 days before the expiration date of this permit using the appropriate forms listed in Rule 62-620.910, F.A.C., and in the manner established in the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.; or
- b. The permittee has made complete the application for renewal of this permit before the permit expiration date.

[62-620.335(1) - (4)]

- 3. The permittee shall submit notification of completion of construction the headworks on DEP Form 62-620.910(12) prior to placing the newly constructed or modified portion of an existing facility into operation or any individual unit processes into operation, for any purpose other than testing for leaks and equipment operation. Provide notification to the Department on DEP Form 62-620.910(12) that construction has been completed.
- 4.. Within six months after a facility is placed in operation, the permittee shall provide written certification to the Department on Form 62-620.910(13) that record drawings pursuant to Chapter 62-600, F.A.C., and that an operation and maintenance manual pursuant to Chapters 62-600 and 62-610, F.A.C., as applicable, are available at the location specified on the form. [62-620.410(6) and 62-620.630(7)]

VII. INDUSTRIAL PRETREATMENT PROGRAM REQUIREMENTS

This facility is not required to have a pretreatment program at this time. [62-625.500]

VIII. OTHER SPECIFIC CONDITIONS

- 1. In the event that the wastewater facilities or equipment, including collection/transmission systems, no longer function as intended, are no longer safe in terms of public health and safety (including inactive or abandoned facilities), or odor, noise, aerosol drift, or lighting adversely affects neighboring developed areas at the levels prohibited by paragraphs 62-600.400(2)(a) and 62-604.400(2)(c), F.A.C., corrective action (which may include additional maintenance or modifications of the permitted facilities) shall be taken by the permittee. Other corrective action may be required to ensure compliance with rules of the Department. Additionally, the treatment, management, use or land application of residuals shall not cause a violation of the odor prohibition in subsection 62-296.320(2), F.A.C. [62-600.410(5), 62-604.500(3) and 62-640.400(6)]
- 2. All collection/transmission systems shall be operated and maintained so as to provide uninterrupted service. [62-604.500(2)]
- 3. The deliberate introduction of stormwater in any amount into collection/transmission systems designed solely for the introduction (and conveyance) of domestic/industrial wastewater; or the deliberate introduction of stormwater into collection/transmission systems designed for the introduction or conveyance of combinations of storm and domestic/industrial wastewater in amounts which may reduce the efficiency of pollutant removal by the treatment plant is prohibited, except as provided by Rule 62-610.472, F.A.C. [62-604.130(4)]
- 4. Cross-connection, as defined in Rule 62-550.200, F.A.C., between the wastewater facility, including the collection/transmission system, and a potable water system is prohibited. [62-550.360][62-604.130(3)]
- 5. The collection/transmission operation and maintenance manual shall be maintained and revised periodically in accordance with subsection 62-604.500(4), F.A.C., to reflect any alterations performed or to reflect experience resulting from operation. However, a new operation and maintenance manual is not required to be developed for each project if there is already an existing manual that is applicable to the facilities being constructed. [62-604.500(4)]

- 6. Collection/transmission system overflows shall be reported to the Department in accordance with Permit Condition IX. 20. [62-604.550] [62-620.610(20)]
- 7. The operating authority of a collection/transmission system and the permittee of a treatment plant are prohibited from accepting connections of wastewater discharges which have not received necessary pretreatment or which contain materials or pollutants (other than normal domestic wastewater constituents):
 - a. Which may cause fire or explosion hazards; or
 - b. Which may cause excessive corrosion or other deterioration of wastewater facilities due to chemical action or pH levels; or
 - c. Which are solid or viscous and obstruct flow or otherwise interfere with wastewater facility operations or treatment; or
 - d. Which result in the wastewater temperature at the introduction of the treatment plant exceeding 40°C or otherwise inhibiting treatment; or
 - e. Which result in the presence of toxic gases, vapors, or fumes that may cause worker health and safety problems.

[62-604.130(5)]

- 8. The treatment facility and rapid infiltration basins shall be enclosed with a fence or otherwise provided with features to discourage the entry of animals and unauthorized persons. [62-610.518(1) and 62-600.400(2)(b)]
- 9. Screenings and grit removed from the wastewater facilities shall be collected in suitable containers and hauled to a Department approved Class I landfill or to a landfill approved by the Department for receipt/disposal of screenings and grit. [62-701.300(1)(a)]
- 10. Where required by Chapter 471 or Chapter 492, F.S., applicable portions of reports that must be submitted under this permit shall be signed and sealed by a professional engineer or a professional geologist, as appropriate. [62-620.310(4)]
- 11. The permittee shall provide verbal notice to the Department's South District Office as soon as practical after discovery of a sinkhole or other karst feature within an area for the management or application of wastewater, wastewater residuals (sludges), or reclaimed water. The permittee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department's South District Office in a written report within 7 days of the sinkhole discovery. *[62-620.320(6)]*
- 12. The permittee shall provide notice to the Department of the following:
 - a. Any new introduction of pollutants into the facility from an industrial discharger which would be subject to Chapter 403, F.S., and the requirements of Chapter 62-620, F.A.C., if it were directly discharging those pollutants; and
 - b. Any substantial change in the volume or character of pollutants being introduced into that facility by a source which was identified in the permit application and known to be discharging at the time the permit was issued.

Notice shall include information on the quality and quantity of effluent introduced into the facility and any anticipated impact of the change on the quantity or quality of effluent or reclaimed water to be discharged from the facility. If pretreatment becomes necessary, this permit may be modified to require the permittee to develop and implement a local pretreatment program in accordance with the requirements of Chapter 62-625, F.A.C.

[62-620.625(2)]

IX. GENERAL CONDITIONS

- 1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, Florida Statutes. Any permit noncompliance constitutes a violation of Chapter 403, Florida Statutes, and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. [62-620.610(1)]
- 2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviations from the approved drawings, exhibits, specifications, or conditions of this permit constitutes grounds for revocation and enforcement action by the Department. [62-620.610(2)]
- 3. As provided in subsection 403.087(7), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. [62-620.610(3)]
- 4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. [62-620.610(4)]
- 5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [62-620.610(5)]
- 6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. [62-620.610(6)]
- 7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. [62-620.610(7)]
- 8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [62-620.610(8)]
- 9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to:
 - a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;
 - b. Have access to and copy any records that shall be kept under the conditions of this permit;
 - c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and
 - d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.

[62-620.610(9)]

- 10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, F.S., or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. [62-620.610(10)]
- 11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. [62-620.610(11)]
- 12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. *[62-620.610(12)]*
- 13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. [62-620.610(13)]
- 14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. [62-620.610(14)]
- 15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility or activity and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. [62-620.610(15)]
- 16. The permittee shall apply for a revision to the Department permit in accordance with Rules 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. [62-620.610(16)]
- 17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:
 - a. A description of the anticipated noncompliance;
 - b. The period of the anticipated noncompliance, including dates and times; and
 - c. Steps being taken to prevent future occurrence of the noncompliance.

[62-620.610(17)]

18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246 and Chapters 62-160, 62-600, and 62-610, F.A.C., and 40 CFR 136, as appropriate.

- a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10), or as specified elsewhere in the permit.
- b. If the permittee monitors any contaminant more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
- c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.
- d. Except as specifically provided in Rule 62-160.300, F.A.C., any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). Such certification shall be for the matrix, test method and analyte(s) being measured to comply with this permit. For domestic wastewater facilities, testing for parameters listed in Rule 62-160.300(4), F.A.C., shall be conducted under the direction of a certified operator.
- e. Field activities including on-site tests and sample collection shall follow the applicable standard operating procedures described in DEP-SOP-001/01 adopted by reference in Chapter 62-160, F.A.C.
- f. Alternate field procedures and laboratory methods may be used where they have been approved in accordance with Rules 62-160.220, and 62-160.330, F.A.C.

[62-620.610(18)]

- 19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. [62-620.610(19)]
- 20. The permittee shall report to the Department any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. For noncompliance events related to sanitary sewer overflows or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (sanitary sewer overflows or bypass events), type of sewer overflow (e.g., manhole), discharge volumes by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather. The written submission may be provided electronically using the Department's Business Portal at https://www.fldepportal.com/go/ (via "Submit" followed by "Report" or "Registration/Notification"). Notice required under paragraph (d) may be provided together with the written submission using the Business Portal. All noncompliance events related to sanitary sewer overflows or bypass events submitted after December 21, 2020 shall be submitted electronically.
 - a. The following shall be included as information which must be reported within 24 hours under this condition:
 - (1) Any unanticipated bypass which causes any reclaimed water or the effluent to exceed any permit limitation or results in an unpermitted discharge,
 - (2) Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
 - (4) Any unauthorized discharge to surface or ground waters.
 - b. Oral reports as required by this subsection shall be provided as follows:
 - (1) For unauthorized releases or spills of treated or untreated wastewater reported pursuant to subparagraph (a)4. that are in excess of 1,000 gallons per incident, or where information indicates that

public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WATCH OFFICE TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Watch Office:

- (a) Name, address, and telephone number of person reporting;
- (b) Name, address, and telephone number of permittee or responsible person for the discharge;
- (c) Date and time of the discharge and status of discharge (ongoing or ceased);
- (d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
- (e) Estimated amount of the discharge;
- (f) Location or address of the discharge;
- (g) Source and cause of the discharge;
- (h) Whether the discharge was contained on-site, and cleanup actions taken to date;
- (i) Description of area affected by the discharge, including name of water body affected, if any; and
- (j) Other persons or agencies contacted.
- (2) Oral reports not otherwise required to be provided pursuant to subparagraph (b)1. above, shall be provided to the Department within 24 hours from the time the permittee becomes aware of the circumstances.
- c. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department shall waive the written report.
- d. In accordance with Section 403.077, F.S., unauthorized releases or spills reportable to the State Watch Office pursuant to subparagraph (b)1. above shall also be reported to the Department within 24 hours from the time the permittee becomes aware of the discharge. The permittee shall provide to the Department information reported to the State Watch Office. Notice of unauthorized releases or spills may be provided to the Department through the Department's Public Notice of Pollution web page at https://floridadep.gov/pollutionnotice.
 - (1) If, after providing notice pursuant to paragraph (d) above, the permittee determines that a reportable unauthorized release or spill did not occur or that an amendment to the notice is warranted, the permittee may submit additional notice to the Department documenting such determination.
 - (2) If, after providing notice pursuant to paragraph (d) above, the permittee discovers that a reportable unauthorized release or spill has migrated outside the property boundaries of the installation, the permittee must provide an additional notice to the Department that the release has migrated outside the property boundaries within 24 hours after its discovery of the migration outside of the property boundaries.

[62-620.610(20)] [62-620.100(3)] [403.077, F.S.]

- 21. The permittee shall report all instances of noncompliance not reported under Permit Conditions IX.17., IX.18., or IX.19. of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Permit Condition IX.20. of this permit. [62-620.610(21)]
- 22. Bypass Provisions.
 - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment works.
 - b. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:
 - (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
 - (2) 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

FLA014313 FLA014313-016-DW1P

- (3) The permittee submitted notices as required under Permit Condition IX.22.c. of this permit.
- c. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible, at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Permit Condition IX.20. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.
- d. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Permit Condition IX.22.b.(1) through (3) of this permit.
- e. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Permit Condition IX.22.b. through d. of this permit.

[62-620.610(22)]

- 23. Upset Provisions.
 - a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee.
 - (1) An upset does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation.
 - (2) An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of upset provisions of Rule 62-620.610, F.A.C., are met.
 - b. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in Permit Condition IX.20. of this permit; and
 - (4) The permittee complied with any remedial measures required under Permit Condition IX.5. of this permit.
 - c. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the permittee.
 - d. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.

[62-620.610(23)]

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Jon M. Iglehart Director of District Management

Attachments: Administrative Order Number AO-014313-016 Discharge Monitoring Report Statement of Basis



FLORIDA DEPARTMENT OF Environmental Protection

Ron DeSantis Governor

Jeanette Nuñez Lt. Governor

Noah Valenstein Secretarv

Administrative Order No. AO-014313-016

South District PO Box 2549 Fort Myers FL 33902-2549 SouthDistrict@FloridaDEP.gov

BEFORE THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

IN THE MATTER OF:

City of Avon Park Rick Whalen, P.E., Public Works Director 110 E. Main Street Avon Park, Florida 33825-3945 <u>rwhalen@avonpark.cc</u>

City of Avon Park WWTF Department Permit No: FLA014313-016-DW1P

ORDER ESTABLISHING COMPLIANCE SCHEDULE UNDER SECTION 403.088(2)(f), F.S.

I. STATUTORY AUTHORITY

The Department of Environmental Protection (Department) issues this Administrative Order (Order) under the authority of §403.087, Florida Statutes (F.S.). The Secretary of the Department has delegated this authority to the Director of District Management, who issues this Order and makes the following findings of fact.

II. FINDINGS OF FACT

- 1. City of Avon Park, ("Permittee") is a person under section 403.031, F.S
- The Permittee owns and operates the City of Avon Park WWTF, located at US Highway 27 S., Avon Park, Florida which discharges wastewater into ground water of the State as defined in Section 403.031 of the Florida Statutes.
- The Department has issued Final Order Number 20-0065 Lake Okeechobee Basin Management Action Plan which establishes limits for Total Nitrogen and Total Phosphorus. The text for this order can be found at the following link: <u>https://floridadep.gov/ogc/ogc/documents/20-0040</u>
- 4. The Permittee has filed application for permit renewal of the above referenced Department permit under §403.087, F.S.
- 5. The Permittee has not provided reasonable assurance that the facility discharge will meet the effluent requirements of Final Order 20-0065.

- 6. Sections 403.088(2)(e) and (f), F.S., authorize the Department to issue a permit for the discharge of wastes into waters of the state, accompanied by an order establishing a schedule for achieving compliance with all permit conditions if specified criteria are met.
- 7. There is no present, reasonable, alternative means of disposing of the waste other than by discharging it into the waters of the state.

III. ORDER

Based on the foregoing findings of fact,

IT IS ORDERED,

- 1. The Permittee shall be in full compliance with the final conditions of the permit by November 30, 2023.
- 2. The Permittee shall submit comply with the following schedule:

| | Action Item | Due Date | | |
|----|--|---|--|--|
| a. | Sample the effluent monthly for total nitrogen and total phosphorus concentrations. This shall be a "report" only requirement during the active administrative order. | Beginning July 1, 2021 | | |
| b. | Retain a licensed engineer or geologist to evaluate the effluent and groundwater qualities of total nitrogen and total phosphorus. | October 1, 2021 | | |
| c. | Submit a licensed engineer or geologist's report demonstrating that the effluent discharge does not cause or contribute to total nitrogen or total phosphorus violations at the edge of the zone of discharge. | June 31, 2022 | | |
| d. | If the report provided to the Department does not demonstrate that the effluent discharge does not cause or contribute to total nitrogen or total phosphorus violations, the permittee shall:i. Submit a complete application to modify the treatment facility for nutrient removal, or | August 31, 2022 | | |
| i | i. Submit a complete application to modify the reuse or disposal system, or | | | |
| ii | i. Submit an application for a domestic wastewater collection system connection to another wastewater treatment facility | | | |
| e. | The permittee shall commence construction of the chosen modifications. | Within 6 months of permit revision or collection system permit | | |

3. The Permittee shall report the concentrations of Total Nitrogen and Total Phosphorus in the effluent and the monitoring wells, monthly on the Interim Discharge Monitoring Report.

- 4. The Permittee shall submit quarterly status reports (due by the 28th of January, April, July, and October) which show progress of the actions required to bring the facility into compliance.
- 5. Reports or other information required by this Order shall be sent electronically to <u>SouthDistrict@floridadep.gov</u>.
- 6. The Permittee shall maintain and operate its facilities in compliance with all other conditions of Department Permit No. FLA014313-016.
- 7. This Order may be modified through revisions as set forth in Chapter 62-620, F.A.C.
- 8. This Order does not operate as a permit under §403.087, F.S. This Order shall be incorporated by reference into Department Permit No. FLA014313-016., which shall require compliance by the Permittee with the requirements of this order.
- 9. Failure to comply with the requirements of this Order shall constitute a violation of this Order and Department Permit No. FLA014313-016 and may subject the Permittee to penalties as provided in §403.161, F.S.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Jon M. Iglehart Director of District Management

|--|

| PERMITTEE NAME: | City of Avon Park 110 E Main St Avon Park, Florida 33825- 3945 City of Avon Park WWTP US Highway 27 S Avon Park, FL 33825- | | | PERMIT NUMBER: LIMIT: CLASS SIZE: MONITORING GROUP NUMBER: MONITORING GROUP DESCRIPTION: RE-SUBMITTED DMR: | | | FLA014313-016-DW1P | | | | | |
|--|---|----------|---------------------|---|----------------|-------------------|---|-------------------|-------|----------------------|--------------------------|---------------------|
| FACILITY: LOCATION: | | | | | | | Interim RE N/A PR R-001 Eight percolation ponds, with Influe | | | ORT FI IGRAM t | REQUENCY: : | Monthly Domestic |
| COUNTY: OFFICE: | Highlands South District | | | MONITORI | NG PERIOD | From: | | | То: | | | |
| Parameter | | Quantity | or Loading | Units | (| Quality or Con | centratio | n | Units | No. Ex. | Frequency of Analysis | Sample Type |
| Flow | Sample Measurement | | | | | | | | | | | |
| PARM Code 50050 Y Mon. Site No. FLW-1 | Permit Requirement | | 1.85 (An.Avg.) | MGD | | | | | | | Continuous | Flow Totalizer |
| Flow | Sample Measurement | | | | | | | | | | | |
| PARM Code 50050 1 Mon. Site No. FLW-1 | Permit Requirement | | Report (Mo.Avg.) | MGD | | | | | | | Continuous | Flow Totalizer |
| BOD, Carbonaceous 5 day, 20 | C Sample Measurement | | | | | | | | | | | |
| PARM Code 80082 Y Mon. Site No. EFA-1 | Permit Requirement | | | | | 20.0 (An.Avs | g.) | | mg/L | | Weekly | 8-hr FPC |
| BOD, Carbonaceous 5 day, 20 | C Sample Measurement | | | | | | | | | | | |
| PARM Code 80082 A Mon. Site No. EFA-1 | Permit Requirement | | | | 60.0 (Max.) | 45.0 (Max.Wk./ | Avg.) | 30.0 (Mo.Avg.) | mg/L | | Weekly | 8-hr FPC |
| Solids, Total Suspended | Sample Measurement | | | | | | | | | | | |
| PARM Code 00530 Y Mon. Site No. EFA-1 | Permit Requirement | | | | | 20.0 (An.Avs | g.) | | mg/L | | Weekly | 8-hr FPC |
| Solids, Total Suspended | Sample Measurement | | | | | | | | | | | |
| PARM Code 00530 A Mon. Site No. EFA-1 | Permit Requirement | | | | 60.0 (Max.) | 45.0 (Max.Wk./ | Avg.) | 30.0 (Mo.Avg.) | mg/L | | Weekly | 8-hr FPC |

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.

| NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | TELEPHONE NO | DATE (mm/dd/yyyy) |
|---|--|--------------|-------------------|
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COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

R-001

FACILITY: City of Avon Park WWTP

MONITORING GROUP NUMBER: PERMIT NUMBER: FLA014313-016-DW1P

MONITORING PERIOD From: _____ To: _____

| Parameter | | Quantity or Loading | | Units | Quality or Concentration | | | Units | No. Ex. | Frequency of Analysis | Sample Type |
|--|-----------------------|---------------------|--|-------|--------------------------|------------------|---------------------------------------|---------|------------|--------------------------|-------------|
| Coliform, Fecal | Sample Measurement | | | | | | | | | | |
| PARM Code 74055 Y Mon. Site No. EFA-1 | Permit Requirement | | | | | 200 (An.Avg.) | | #/100mL | | Weekly | Grab |
| Coliform, Fecal | Sample Measurement | | | | | | | | | | |
| PARM Code 74055 A Mon. Site No. EFA-1 | Permit Requirement | | | | 800 (Max.) | 400 (90th %) | 200 (Mo.Geo.Mn.) | #/100mL | | Weekly | Grab |
| pН | Sample Measurement | | | | · · · · · | | | | | | |
| PARM Code 00400 A Mon. Site No. EFA-1 | Permit Requirement | | | | 6.0 (Min.) | | 8.5 (Max.) | s.u. | | Continuous | Meter |
| Chlorine, Total Residual (For Disinfection) | Sample Measurement | | | | | | , , , , , , , , , , , , , , , , , , , | | | | |
| PARM Code 50060 A Mon. Site No. EFA-1 | Permit Requirement | | | | 0.5 (Min.) | | | mg/L | | Continuous | Meter |
| Nitrogen, Nitrate, Total (as N) | Sample Measurement | | | | X | | | | | | |
| PARM Code 00620 A Mon. Site No. EFA-1 | Permit Requirement | | | | | | 12.0 (Max.) | mg/L | | Weekly | 8-hr FPC |
| Nitrogen, Total | Sample Measurement | | | | | | | | | | |
| PARM Code 00600 P Mon. Site No. EFA-1 | Permit Requirement | | | | | | Report (Max.) | mg/L | | Monthly | Grab |
| Phosphorus, Total (as P) | Sample Measurement | | | | | | | | | | |
| PARM Code 00665 P Mon. Site No. EFA-1 | Permit Requirement | | | | | | Report (Max.) | mg/L | | Monthly | Grab |
| Percent Capacity, (TMADF/Permitted Capacity) x 100 | Sample Measurement | | | | | | | | | | |
| PARM Code 00180 P Mon. Site No. CAL-1 | Permit Requirement | | | | | | Report (Mo.Avg.) | percent | | Monthly | Calculated |
| BOD, Carbonaceous 5 day, 20C (Influent) | Sample Measurement | | | | | | | | | | |
| PARM Code 80082 G Mon. Site No. INF-1 | Permit Requirement | | | | | | Report (Max.) | mg/L | | Weekly | 8-hr FPC |
| Solids, Total Suspended (Influent) | Sample Measurement | | | | | | | | | | |
| PARM Code 00530 G Mon. Site No. INF-1 | Permit Requirement | | | | | | Report (Max.) | mg/L | | Weekly | 8-hr FPC |

| When Completed submit this report to: http://www.fldepportal.com/go/submit- | report/ |
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| PERMITTEE NAME: O | City of Avon Park | | | PERMIT NU | MBER: | | FLA01 | 4313-016-DW1P | | | | |
|--|---|-----------|---------------------|-------------------------------------|--|-------------------|------------------|-------------------|--------------|------------|--------------------------|----------------|
| MAILING ADDRESS: I | Avon Park, Florida 338 | 825- 3945 | | LIMIT: CLASS SIZE | - . | | Final N/A | | REI | PORT FI | REQUENCY: | Monthly |
| FACILITY: C LOCATION: U | City of Avon Park WW JS Highway 27 S Avon Park, FL 33825- | 'TP | | MONITORII MONITORII RE-SUBMIT | NG GROUP NUM NG GROUP DESC TTED DMR: | BER: CRIPTION: | R-001 Eight p | ercolation ponds, | with Influer | it | | Domestic |
| COUNTY: H OFFICE: S | Highlands South District | | | MONITORII | NG PERIOD | From: | | | То: | | | |
| Parameter | | Quantity | or Loading | Units | (| Quality or Cond | centratio | n | Units | No. Ex. | Frequency of Analysis | Sample Type |
| Flow | Sample Measurement | | | | | | | | | | | |
| PARM Code 50050 Y Mon. Site No. FLW-1 | Permit Requirement | | 1.85 (An.Avg.) | MGD | | | | | | | Continuous | Flow Totalizer |
| Flow | Sample Measurement | | | | | | | | | | | |
| PARM Code 50050 1 Mon. Site No. FLW-1 | Permit Requirement | | Report (Mo.Avg.) | MGD | | | | | | | Continuous | Flow Totalizer |
| BOD, Carbonaceous 5 day, 200 | C Sample Measurement | | | | | | | | | | | |
| PARM Code 80082 Y Mon. Site No. EFA-1 | Permit Requirement | | | | | 20.0 (An.Avg | g.) | | mg/L | | Weekly | 8-hr FPC |
| BOD, Carbonaceous 5 day, 200 | C Sample Measurement | | | | | | | | | | | |
| PARM Code 80082 A Mon. Site No. EFA-1 | Permit Requirement | | | | 60.0 (Max.) | 45.0 (Max.Wk.4 | Avg.) | 30.0 (Mo.Avg.) | mg/L | | Weekly | 8-hr FPC |
| Solids, Total Suspended | Sample Measurement | | | | , , , , , , , , , , , , , , , , , | | | | | | | |
| PARM Code 00530 Y Mon. Site No. EFA-1 | Permit Requirement | | | | | 20.0 (An.Avg | g.) | | mg/L | | Weekly | 8-hr FPC |
| Solids, Total Suspended | Sample Measurement | | | | | | | | | | | |
| PARM Code 00530 A Mon. Site No. EFA-1 | Permit Requirement | | | | 60.0 (Max.) | 45.0 (Max.Wk.4 | Avg.) | 30.0 (Mo.Avg.) | mg/L | | Weekly | 8-hr FPC |

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.

| NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | TELEPHONE NO | DATE (mm/dd/yyyy) |
|---|--|--------------|-------------------|
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COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

R-001

FACILITY: City of Avon Park WWTP

MONITORING GROUP NUMBER: PERMIT NUMBER: FLA014313-016-DW1P

То: _____

MONITORING PERIOD From: _____

| Parameter | Quantity or Loading Units Quality or Concentration | | | | ion | Units | No. Ex. | Frequency of Analysis | Sample Type | | |
|--|--|--|--|--|---------------|------------------|---------------------|--------------------------|-------------|------------|------------|
| Coliform, Fecal | Sample Measurement | | | | | | | | | | |
| PARM Code 74055 Y Mon. Site No. EFA-1 | Permit Requirement | | | | | 200 (An.Avg.) | | #/100mL | | Weekly | Grab |
| Coliform, Fecal | Sample Measurement | | | | | | | | | | |
| PARM Code 74055 A Mon. Site No. EFA-1 | Permit Requirement | | | | 800 (Max.) | 400 (90th %) | 200 (Mo.Geo.Mn.) | #/100mL | | Weekly | Grab |
| рН | Sample Measurement | | | | | | | | | | |
| PARM Code 00400 A Mon. Site No. EFA-1 | Permit Requirement | | | | 6.0 (Min.) | | 8.5 (Max.) | s.u. | | Continuous | Meter |
| Chlorine, Total Residual (For Disinfection) | Sample Measurement | | | | | | | | | | |
| PARM Code 50060 A Mon. Site No. EFA-1 | Permit Requirement | | | | 0.5 (Min.) | | | mg/L | | Continuous | Meter |
| Nitrogen, Nitrate, Total (as N) | Sample Measurement | | | | | | | | | | |
| PARM Code 00620 A Mon. Site No. EFA-1 | Permit Requirement | | | | | | 12.0 (Max.) | mg/L | | Weekly | 8-hr FPC |
| Percent Capacity, (TMADF/Permitted Capacity) x 100 | Sample Measurement | | | | | | | | | | |
| PARM Code 00180 P Mon. Site No. CAL-1 | Permit Requirement | | | | | | Report (Mo.Avg.) | percent | | Monthly | Calculated |
| BOD, Carbonaceous 5 day, 20C (Influent) | Sample Measurement | | | | | | | | | | |
| PARM Code 80082 G Mon. Site No. INF-1 | Permit Requirement | | | | | | Report (Max.) | mg/L | | Weekly | 8-hr FPC |
| Solids, Total Suspended (Influent) | Sample Measurement | | | | | | | | | | |
| PARM Code 00530 G Mon. Site No. INF-1 | Permit Requirement | | | | | | Report (Max.) | mg/L | | Weekly | 8-hr FPC |
| | | | | | | | | | | | |
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When Completed submit this report to: http://www.fldepportal.com/go/submit-report/

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|--------------------------|----------------------|-------------|------------|-----------------------|---------------------|---------------|--------------|----------------------|---------------|--------|--------------|-------------|
| PERMITTEE NAME: | City of Avon Park | | | PERMIT NU | JMBER: | | FLA01 | 4313-016-DW1P | | | | |
| MAILING ADDRESS: | 110 E Main St | 2025 2045 | | | | | F : 1 | | DED | | | 0 1 |
| | Avon Park, Florida 3 | 3825-3945 | | LIMIT: CLASS SIZI | E. | | Final N/A | | REP | GRA FR | REQUENCY: | Quarterly |
| FACILITY: | City of Avon Park W | WTP | | MONITORI | L. NG GROUP NUME | BER: | R-001 | | TRO | UKAWI | | Domestic |
| LOCATION: | US Highway 27 S | | | MONITORI | NG GROUP DESCI | RIPTION: | Eight p | percolation ponds, v | vith Influent | | | |
| | Avon Park, FL 33825 | - | | RE-SUBMI | ITED DMR: | | | | | | | |
| COUNTY | Highlands | | | NO DISCHA MONITORI | ARGE FROM SITE: | From | | | To | | | |
| OFFICE: | South District | | | MONTORI | NOTERIOD | FIOIII. | | | 10. | | | |
| | South District | | | | | | | | | | | |
| Parameter | | Quantity of | or Loading | Units | Q | uality or Cor | ncentratio | on | Units | No. | Frequency of | Sample Type |
| NT: | | | | | | 1 | | | | Ex. | Analysis | |
| Nitrogen, I otal | Sample | | | | | | | | | | | |
| PARM Code 00600 P | Permit | | | | | | | Report | mg/L | | Ouarterly | Grab |
| Mon. Site No. EFA-1 | Requirement | | | | | | | (Max.) | _ | | | |
| Phosphorus, Total (as P) | Sample | | | | | | | | | | | |
| | Measurement | | | | | | | D | 17 | | <u> </u> | <u> </u> |
| PARM Code 00665 P | Permit | | | | | | | (Max) | mg/L | | Quarterly | Grab |
| Woll. She No. EFA-1 | Kequitement | | | | | | | (Widx.) | | | | |
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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.

| NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | TELEPHONE NO | DATE (mm/dd/yyyy) |
|---|--|--------------|-------------------|
| | | | |
| | | | |

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

When Completed submit this report to: <u>http://www.fldepportal.com/go/submit-report/</u>

| PERMITTEE NAME: | City of | Avon Park | | | PERMIT NU | JMBER: | | FLA0143 | 313-016-DW1P | | | | |
|--|---------------------------------------|---|------------------------|----------------------|---|--|------------------|------------------------------------|--------------|------------|------------------|--------------------------|---------------------|
| FACILITY: LOCATION: | Avon P City of US Hig Avon P | Park, Florida 3 Avon Park W hway 27 S Park, FL 33825 | 3825- 3945 WTP - | | LIMIT: CLASS SIZI MONITORI MONITORI RE-SUBMIT | E: NG GROUP NUME NG GROUP DESCI TTED DMR: | BER: RIPTION: | Final N/A RMP-Q Biosolids | s Quantity | REI PRO | PORT FI OGRAM | REQUENCY: : | Monthly Domestic |
| COUNTY: OFFICE: | Highlar South E | nds District | | | MONITORI | NG PERIOD | From: | | | То: | | | |
| Parameter | | | Quantity of | or Loading | Units | Q | uality or Coi | ncentration | | Units | No. Ex. | Frequency of Analysis | Sample Type |
| Biosolids Quantity (Received | i) S N | Sample Measurement | | | | | | | | | | | |
| PARM Code B0002 + Mon. Site No. RMP-2 | H F | Permit Requirement | | Report (Mo.Total) | dry tons | | | | | | | Monthly | Calculated |
| Biosolids Quantity (Landfille | ed) S | Sample Measurement | | | | | | | | | | | |
| PARM Code B0008 + Mon. Site No. RMP-1 | H F | Permit Requirement | | Report (Mo.Total) | dry tons | | | | | | | Monthly | Calculated |
| Biosolids Quantity (Transferr | red) S | Sample Measurement | | | | | | | | | | | |
| PARM Code B0007 + Mon. Site No. RMP-1 | F F | Permit Requirement | | Report (Mo.Total) | dry tons | | | | | | | Monthly | Calculated |
| | _ | | | | | | | | | | | | |
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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.

| NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | TELEPHONE NO | DATE (mm/dd/yyyy) |
|---|--|--------------|-------------------|
| | | | |
| | | | |

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

When Completed submit this report to: http://www.fldepportal.com/go/submit-report/

| 1 | • • | | · · · · | | | | | | | |
|--|--|------------------------|------------|---|--|---|-------------------------------|----------------------------|---------------------|----------------------|
| PERMITTEE NAME: | City of Avon Park | | | PERMIT NUMI | BER: | FLA014313-016-DW1P | | | | |
| FACILITY: LOCATION: COUNTY: OFFICE: | Avon Park, Florida 3 City of Avon Park W US Highway 27 S Avon Park, FL 33825 Highlands South District | 3825- 3945 WTP - | | LIMIT: CLASS SIZE: MONITORING MONITORING RE-SUBMITTE NO DISCHARC MONITORING MONITORING | GROUP NUMBER: GROUP DESCRIPTION: D DMR: GE FROM SITE: NOT REQUIRED:* PERIOD From: | Final N/A RWS-A Annual Reclaimed Wate: | REP PRO r or Effluent . | ORT FF GRAM Analysis | REQUENCY: : s | Annually Domestic |
| Parameter | | Quantity | or Loading | Units | Quality or Co | oncentration | Units | No. | Frequency of | Sample Type |
| Antimony, Total Recoverable | e Sample | | | | | | | EX. | Analysis | |
| $(GWS = 6)^{**}$ | Measurement | | | | | | | | | |
| PARM Code 01268 P Mon. Site No. RWS-A | Permit Requirement | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Arsenic, Total Recoverable (GWS = 10) | Sample Measurement | | | | | | | | | |
| PARM Code 00978 P Mon. Site No. RWS-A | Permit Requirement | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Barium, Total Recoverable $(GWS = 2,000)$ | Sample Measurement | | | | | | | | | |
| PARM Code 01009 P Mon. Site No. RWS-A | Permit Requirement | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Beryllium, Total Recoverable (GWS = 4) | e Sample Measurement | | | | | | | | | |
| PARM Code 00998 P Mon. Site No. RWS-A | Permit Requirement | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Cadmium, Total Recoverable (GWS = 5) | e Sample Measurement | | | | | | | | | |
| PARM Code 01113 P Mon. Site No. RWS-A | Permit Requirement | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Chromium, Total Recoverab (GWS =100) | le Sample Measurement | | | | | | | | | |
| PARM Code 01118 P Mon. Site No. RWS-A | Permit Requirement | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |

*THE "MONITORING NOT REQUIRED" CHECKBOX SHOULD BE SELECTED WHEN A CERTIFICATION STATEMENT IN ACCORDANCE WITH SUBSECTION 62-600.680(2), F.A.C., IS SUBMITTED WITH THIS DMR. SEE CERTIFICATION STATEMENT IN COMMENTS SECTION BELOW. **GROUND WATER STANDARD (GWS) FOR REFERENCE AND REVIEW ONLY.

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.

| NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | TELEPHONE NO | DATE (mm/dd/yyyy) |
|---|--|--------------|-------------------|
| | | | |

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

□ NO NEW NON-DOMESTIC WASTEWATER DISCHARGERS HAVE BEEN ADDED TO THE COLLECTION SYSTEM SINCE THE LAST RECLAIMED WATER OR EFFLUENT ANALYSIS WAS CONDUCTED. SIGN AND DATE:

FACILITY: City of Avon Park WWTP MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

MONITORING PERIOD

From: _____ To: _____

RWS-A

| Parameter | | Quantity of | r Loading | Units | Q | uality or Concentratio | on | Units | No. Ex. | Frequency of Analysis | Sample Type |
|--|-----------------------|-------------|-----------|-------|---|------------------------|------------------|-------|------------|--------------------------|-------------|
| Cyanide, Free (amen. to chlorination)(GWS = 200) | Sample Measurement | | | | | | | | | | |
| PARM Code 00722 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| Fluoride, Total (as F) (GWS = 4.0/2.0) | Sample Measurement | | | | | | | | | | |
| PARM Code 00951 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Lead, Total Recoverable (GWS = 15) | Sample Measurement | | | | | | | | | | |
| PARM Code 01114 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Mercury, Total Recoverable (GWS = 2) | Sample Measurement | | | | | | | | | | |
| PARM Code 71901 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Nickel, Total Recoverable (GWS = 100) | Sample Measurement | | | | | | | | | | |
| PARM Code 01074 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Nitrogen, Nitrate, Total (as N) (GWS = 10) | Sample Measurement | | | | | | | | | | |
| PARM Code 00620 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Nitrogen, Nitrite, Total (as N) (GWS = 1) | Sample Measurement | | | | | | | | | | |
| PARM Code 00615 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Nitrite plus Nitrate, Total 1 det. (as N)(GWS = 10) | Sample Measurement | | | | | | | | | | |
| PARM Code 00630 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Selenium, Total Recoverable (GWS =50) | Sample Measurement | | | | | | | | | | |
| PARM Code 00981 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Sodium, Total Recoverable (GWS = 160) | Sample Measurement | | | | | | | | | | |
| PARM Code 00923 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |

FACILITY: City of Avon Park WWTP MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

MONITORING PERIOD

From: _____ To: _____

RWS-A

| Parameter | | Quantity or 1 | Loading | Units | Qı | ality or Concentratio | on | Units | Units No. Frequency of Ex. Analysis | | |
|--|-----------------------|---------------|---------|-------|----|-----------------------|------------------|-------|--|----------|-----------|
| Thallium, Total Recoverable (GWS = 2) | Sample Measurement | | | | | | | | | | |
| PARM Code 00982 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| 1,1-dichloroethylene (GWS = 7) | Sample Measurement | | | | | | | | | | |
| PARM Code 34501 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| 1,1,1-trichloroethane (GWS = 200) | Sample Measurement | | | | | | | | | | |
| PARM Code 34506 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| 1,1,2-trichloroethane (GWS = 5) | Sample Measurement | | | | | | | | | | |
| PARM Code 34511 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| 1,2-dichloroethane (GWS = 3) | Sample Measurement | | | | | | | | | | |
| PARM Code 32103 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| (GWS = 5) | Sample Measurement | | | | | | | σ | | A 11 | <u> </u> |
| Mon. Site No. RWS-A | Requirement | | | | | | (Max.) | ug/L | | Annually | Grab |
| (GWS = 70) | Measurement | | | | | | | /T | | A 11 | 24.1 EDC |
| Mon. Site No. RWS-A | Requirement | | | | | | (Max.) | ug/L | | Annually | 24-nr FPC |
| (GWS = 1) | Measurement | | | | | | D. (| /T | | A 11 | 0.1 |
| Mon. Site No. RWS-A | Requirement | | | | | | (Max.) | ug/L | | Annually | Grab |
| (GWS = 3) | Measurement | | | | | | D | /T | | A 11 | 0.1 |
| Mon. Site No. RWS-A | Requirement | | | | | | (Max.) | ug/L | | Annually | Grab |
| Cis-1,2-dichloroethene $(GWS = 70)$ | Sample Measurement | | | | | | D | /T | | 4 11 | |
| Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |

RWS-A

From:

FACILITY: City of Avon Park WWTP

Mon. Site No. RWS-A

MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

To:

Report

(Max.)

MONITORING PERIOD

| Parameter | | Quantity or Loading | Units | Quality or Conce | Units | No. Ex. | Frequency of Analysis | Sample Type | |
|----------------------------|-------------|---------------------|-------|------------------|--------|------------|--------------------------|-------------|------|
| Dichloromethane (methylene | Sample | | | | | | | | |
| chloride)(GWS = 5) | Measurement | | | | | | | | |
| PARM Code 03821 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | 5 | |
| Ethylbenzene | Sample | | | | | | | | |
| (GWS = 700) | Measurement | | | | | | | | |
| PARM Code 34371 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | • | |
| Monochlorobenzene | Sample | | | | | | | | |
| (GWS = 100) | Measurement | | | | | | | | |
| PARM Code 34031 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | • | |
| 1,2-dichlorobenzene | Sample | | | | | | | | |
| (GWS = 600) | Measurement | | | | | | | | |
| PARM Code 34536 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | | |
| 1,4-dichlorobenzene | Sample | | | | | | | | |
| (GWS = 75) | Measurement | | | | | | | | |
| PARM Code 34571 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | | |
| Styrene, Total | Sample | | | | | | | | |
| (GWS = 100) | Measurement | | | | | | | | |
| PARM Code 77128 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | | |
| Tetrachloroethylene | Sample | | | | | | | | |
| (GWS = 3) | Measurement | | | | | | | | |
| PARM Code 34475 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | | |
| Toluene | Sample | | | | | | | | |
| (GWS = 1,000) | Measurement | | | | | | | | |
| PARM Code 34010 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | - | |
| 1,2-trans-dichloroethylene | Sample | | | | | | | | |
| (GWS = 100) | Measurement | | | | | | | | |
| PARM Code 34546 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | | |
| Trichloroethylene | Sample | | | | | | | | |
| (GWS = 3) | Measurement | | | | | 1 | | | |
| PARM Code 39180 P | Permit | | | | Report | ug/L | | Annually | Grab |

Requirement

Annually

RWS-A

FACILITY: City of Avon Park WWTP

Sample

Parameter

Vinyl chloride

MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

No.

Ex.

Frequency of

Analysis

Sample Type

| | | MONITORI | NG PERIOD | Fr | rom: | То: | |
|-------------|---------|----------|-----------|----|-----------------------|------------------|-------|
| Quantity or | Loading | Units | | Q | uality or Concentrati | on | Units |
| | | | | | | | |
| | | | | | | Report (Max.) | ug/L |
| | | | | | | | |
| | | | | | | Report | ug/L |

| (GWS = 1) | Measurement | | | | | | | |
|--------------------------------|-------------|--|---|--|--------|------|----------|-----------|
| PARM Code 39175 P | Permit | | | | Report | ug/L | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | |
| Xylenes | Sample | | | | | | | |
| (GWS = 10,000) | Measurement | | | | | | | |
| PARM Code 81551 P | Permit | | | | Report | ug/L | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | |
| 2,3,7,8-tetrachlorodibenzo-p- | Sample | | | | | | | |
| $dioxin(GWS = 3x10^{-5})$ | Measurement | | | | | | | |
| PARM Code 34675 P | Permit | | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | |
| 2,4-dichlorophenoxyacetic acid | Sample | | | | | | | |
| (GWS = 70) | Measurement | | | | | | | |
| PARM Code 39730 P | Permit | | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | |
| Silvex | Sample | | | | | | | |
| (GWS = 50) | Measurement | | | | | | | |
| PARM Code 39760 P | Permit | | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | |
| Alachlor | Sample | | | | | | | |
| (GWS = 2) | Measurement | | | | | | | |
| PARM Code 39161 P | Permit | | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | |
| Atrazine | Sample | | | | | | | |
| (GWS = 3) | Measurement | | | | | | | |
| PARM Code 39033 P | Permit | | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | |
| Benzo(a)pyrene | Sample | | | | | | | |
| (GWS = 0.2) | Measurement | | - | | | | | |
| PARM Code 34247 P | Permit | | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | |
| Carbofuran | Sample | | | | | | | |
| (GWS = 40) | Measurement | | | | | | | |
| PARM Code 81405 P | Permit | | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | |
| Chlordane (tech mix. and | Sample | | | | | | | |
| metabolites)(GWS = 2) | Measurement | | | | | | | |
| PARM Code 39350 P | Permit | | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | |

FACILITY: City of Avon Park WWTP MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

MONITORING PERIOD

From: _____ To: _____

RWS-A

| Parameter | | Quantity of | or Loading | Units | Q | uality or Concentrati | on | Units No. Frequency of Ex. Analysis | | | Sample Type |
|--|-----------------------|-------------|------------|-------|---|-----------------------|------------------|--|--|----------|-------------|
| Dalapon (GWS = 200) | Sample Measurement | | | | | | | | | | |
| PARM Code 38432 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Bis(2-ethylhexyl)adipate (GWS = 400) | Sample Measurement | | | | | | | | | | |
| PARM Code 77903 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Bis (2-ethylhexyl) phthalate (GWS = 6) | Sample Measurement | | | | | | | | | | |
| PARM Code 39100 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Dibromochloropropane (DBCP) (GWS = 0.2) | Sample Measurement | | | | | | | | | | |
| PARM Code 82625 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| Dinoseb (GWS = 7) | Sample Measurement | | | | | | | | | | |
| PARM Code 30191 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Diquat (GWS = 20) | Sample Measurement | | | | | | | | | | |
| PARM Code 04443 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Endothall (GWS = 100) | Sample Measurement | | | | | | | | | | |
| PARM Code 38926 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Endrin (GWS = 2) | Sample Measurement | | | | | | | | | | |
| PARM Code 39390 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Ethylene dibromide (1,2- dibromoethane)(GWS = 0.02) | Sample Measurement | | | | | | | | | | |
| PARM Code 77651 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| Glyphosate (GWS = 0.7) | Sample Measurement | | | | | | | | | | |
| PARM Code 79743 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
DISCHARGE MONITORING REPORT - PART A (Continued)

RWS-A

FACILITY: City of Avon Park WWTP

Parameter

Heptachlor

(GWS = 0.4)

PARM Code 39410 P

Mon. Site No. RWS-A

Heptachlor epoxide

MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

Frequency of

Analysis

Annually

Sample Type

24-hr FPC

MONITORING PERIOD

To: From: Quantity or Loading Units Quality or Concentration Units No. Ex. Sample Measurement ug/L Permit Report Requirement (Max.) Sample Measurement

| $(GWS = 0.2)^{1}$ | Measurement | | | | | | |
|---------------------------|-------------|--|------|--------|------|----------|-----------|
| PARM Code 39420 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | • | |
| Hexachlorobenzene | Sample | | | | | | |
| (GWS = 1) | Measurement | | | | | | |
| PARM Code 39700 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Hexachlorocyclopentadiene | Sample | | | | | | |
| (GWS = 50) | Measurement | | | | | | |
| PARM Code 34386 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Gamma BHC (Lindane) | Sample | | | | | | |
| (GWS = 0.2) | Measurement | | | | | | |
| PARM Code 39782 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Methoxychlor | Sample | | | | | | |
| (GWS = 40) | Measurement | | | | | | |
| PARM Code 39480 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Oxamyl (vydate) | Sample | | | | | | |
| (GWS = 200) | Measurement | | | | | | |
| PARM Code 38865 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Pentachlorophenol | Sample | | | | | | |
| (GWS = 1) | Measurement | | | | | | |
| PARM Code 39032 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Picloram | Sample | | | | | | |
| (GWS = 500) | Measurement | | | | | | |
| PARM Code 39720 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Polychlorinated Biphenyls | Sample | | | | | | |
| (PCBs)(GWS = 0.5) | Measurement | | | | | | |
| PARM Code 39516 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: City of Avon Park WWTP MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

То:

MONITORING PERIOD

From:

RWS-A

| Parameter | | Quantity or Loading | Units | Quality or Concentration | Units | No. Ex. | Frequency of Analysis | Sample Type |
|--|-----------------------|---------------------|-------|--------------------------|-------|------------|--------------------------|-------------|
| Simazine (GWS = 4) | Sample Measurement | | | | | | | |
| PARM Code 39055 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Toxaphene (GWS = 3) | Sample Measurement | | | | | | | |
| PARM Code 39400 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Trihalomethane, Total by summation(GWS = 0.080) | Sample Measurement | | | | | | | |
| PARM Code 82080 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | mg/L | | Annually | Grab |
| Radium 226 + Radium 228, Total (GWS = 5) | Sample Measurement | | | | | | | |
| PARM Code 11503 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | pCi/L | | Annually | 24-hr FPC |
| Alpha, Gross Particle Activity (GWS = 15) | Sample Measurement | | | | | | | |
| PARM Code 80045 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | pCi/L | | Annually | 24-hr FPC |
| Aluminum, Total Recoverable (GWS = 0.2) | Sample Measurement | | | | | | | |
| PARM Code 01104 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Chloride (as Cl) (GWS = 250) | Sample Measurement | | | | ~ | | | |
| PARM Code 00940 P Mon. Site No. RWS-A | Permit Requirement | | | Keport (Max.) | mg/L | | Annually | 24-hr FPC |
| From, Total Recoverable $(GWS = 0.3)$ | Sample Measurement | | | | 7 | | | 0.1.1 EDG |
| Mon. Site No. RWS-A | Permit Requirement | | | Keport (Max.) | mg/L | | Annually | 24-hr FPC |
| Copper, Total Recoverable (GWS = 1,000) | Sample Measurement | | | | | | | |
| PARM Code 01119 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Manganese, Total Recoverable (GWS = 50) | Sample Measurement | | | | ~ | | | |
| PARM Code 11123 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: City of Avon Park WWTP

MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

MONITORING PERIOD

From: _____ To: _____

RWS-A

| Parameter | | Quantity o | r Loading | Units | Qı | Quality or Concentration | | Units | No. Ex. | Frequency of Analysis | Sample Type |
|--|-----------------------|------------|-----------|-------|----|--------------------------|------------------|-------|------------|--------------------------|-------------|
| Silver, Total Recoverable (GWS = 100) | Sample Measurement | | | | | | | | | | |
| PARM Code 01079 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Sulfate, Total (GWS = 250) | Sample Measurement | | | | | | | | | | |
| PARM Code 00945 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Zinc, Total Recoverable (GWS = 5,000) | Sample Measurement | | | | | | | | | | |
| PARM Code 01094 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| pH (GWS = 6.5-8.5) | Sample Measurement | | | | | | | | | | |
| PARM Code 00400 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | s.u. | | Annually | Grab |
| Solids, Total Dissolved (TDS) (GWS = 500) | Sample Measurement | | | | | | | | | | |
| PARM Code 70295 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Foaming Agents (GWS = 0.5) | Sample Measurement | | | | | | | | | | |
| PARM Code 01288 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
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| DAILY SAMPLE F | RESULTS - PART B |
|----------------|------------------|
|----------------|------------------|

То: ____

Permit Number: Monitoring Period FLA014313-016-DW1P

From: ____

Facility: City of Avon Park WWTP

| í | DOD | DOD | C1.1 . | 0.110 | 51 | 21. | N T: | D1 1 | | G 111 T + 1 | ** |
|------------|---------------------|---------------------|--------------------|--------------------|-------|-----------------------------|--------------------|-----------------------------|----------------------------|----------------------------|------------|
| | BOD, Carbonaceou | BOD, Carbonaceou | Chlorine, Total | Coliform, Fecal | Flow | Nitrogen, Nitrate, Total | Nitrogen, Total | Phosphorus, Total (as P) | Solids, Total Suspended | Solids, Total Suspended | pH s.u. |
| | s 5 day, 20C | s 5 day, 20C | Residual (For | #/100mL | mob | (as N) | mg/L | mg/L | mg/L | (Influent) | 5141 |
| | mg/L | (Influent) | Disinfection) | | | mg/L | | | | mg/L | |
| | | ing/L | ing L | | | | | | | | |
| Code | 80082 | 80082 | 50060 | 74055 | 50050 | 00620 | 00600 | 00665 | 00530 | 00530 | 00400 |
| Mon. Site | EFA-1 | INF-1 | EFA-1 | EFA-1 | FLW-1 | EFA-1 | EFA-1 | EFA-1 | EFA-1 | INF-1 | EFA-1 |
| 1 | | | | | | | | | | | |
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| 29 | | | | | | | | | | | |
| 30 | | | | | | | | | | | |
| 31 | | | | | | | | | | | |
| Total | | | | | | | | | | | |
| Mo. Avg. | | | | | | | | | | | |
| DI ANT C | TAFFING | | | | | | | | | | |
| Day Shift | Operator | Class: | | Certificate No | : | Na | ame: | | | | |
| Evening S | hift Operator | Class: | | Certificate No | : | Na | ime: | | | | |
| Night Shif | ft Operator | Class: | | Certificate No | : | Na | ame: | | | | |

Name:

Class: Certificate No:

Lead Operator

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWC-20805 Compliance MONITORING WELL #4 | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|--|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| | | | | | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | 500 | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | 0.010 | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | 250 | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | 0.005 | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | 0.1 | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | 0.015 | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | 4 | #/100mL | Grab | Quarterly | | | | |
| pH | 00400 | | 6.5 - 8.5 | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | 250 | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total* | 00600 | | 3 | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P)* | 00665 | | 1 | mg/L | Grab | Quarterly | | | | |

*TN and TP shall be monitored monthly (report only) until the expiration of Administrative Order AO-014313-016 on November 30, 2023.

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Γ TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWC-151292 Compliance NE corner compliance well | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|--|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| | | | | | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | 500 | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | 0.010 | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | 250 | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | 0.005 | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | 0.1 | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | 0.015 | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | 4 | #/100mL | Grab | Quarterly | | | | |
| рН | 00400 | | 6.5 - 8.5 | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | 250 | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total* | 00600 | | 3 | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P)* | 00665 | | 1 | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWC-20806 Compliance MONITORING WELL #3 | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|--|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| | | | | | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | 500 | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | 0.010 | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | 250 | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | 0.005 | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | 0.1 | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | 0.015 | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | 4 | #/100mL | Grab | Quarterly | | | | |
| рН | 00400 | | 6.5 - 8.5 | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | 250 | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total* | 00600 | | 3 | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P)* | 00665 | | 1 | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWC-20807 Compliance MONITORING WELL #2 | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|--|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| | | | | | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | 500 | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | 0.010 | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | 250 | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | 0.005 | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | 0.1 | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | 0.015 | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | 4 | #/100mL | Grab | Quarterly | | | | |
| рН | 00400 | | 6.5 - 8.5 | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | 250 | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total* | 00600 | | 3 | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P)(| 00665 | | 1 | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWB-151297 Background Background well Northwest of North pond | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|---|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | Report | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | Report | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | Report | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | Report | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | Report | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | Report | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | Report | #/100mL | Grab | Quarterly | | | | |
| pH | 00400 | | Report | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | Report | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | Report | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | Report | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
 TELEPHONE NO
 DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Par FLA014313-016 Highlands | k WWTP -DW1P | | | Mo We De | onitoring Well ID: ell Type: scription: | MWI-151294 Intermediate Intermediate well | Report Frequency Program: | 7: Quarterly Domestic | |
|---|--|------------------|--------|-------|----------------|---|---|------------------------------|--------------------------|---------|
| Office: | South District | | | | Re | -submitted DMR: | | | | |
| Monitoring Perio | d | From: | To: | | Da | te Sample Obtained: | | | | |
| | | | | | Tir | ne Sample Obtained: | | | | |
| Was the well purg | ged before sampling? | YesNo | | | | | | | | |
| г | Doromater | PAPM Code Sample | Dermit | Unite | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling | Samples |

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | Report | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | Report | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | Report | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | Report | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | Report | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | Report | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | Report | #/100mL | Grab | Quarterly | | | | |
| pН | 00400 | | Report | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | Report | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | Report | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | Report | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTF FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWB-20808 Background MONITORING WELL #1 | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|--|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| | | | | | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | Report | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | Report | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | Report | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | Report | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | Report | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | Report | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | Report | #/100mL | Grab | Quarterly | | | | |
| рН | 00400 | | Report | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | Report | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | Report | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | Report | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWC-151293 Compliance SE corner complience well | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|--|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| | | | | | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|---|-------------|-----------------------|-----------------------|--------------|--------------|------------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | 500 | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | 0.010 | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | 250 | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | 0.005 | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | 0.1 | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | 0.015 | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | 4 | #/100mL | Grab | Quarterly | | | | |
| pH | 00400 | | 6.5 - 8.5 | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | 250 | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | 3 | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | 1 | mg/L | Grab | Quarterly | | | | |
| Nitrogen, Total Phosphorus, Total (as P) | 00600 00665 | | 3 | mg/L mg/L | Grab Grab | Quarterly Quarterly | | | | |

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.

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWI-151295 Intermediate Intermediate well west of North pond | Report Frequency: Program: | Quarterly Domestic |
|---|---|--------|-----|---|---|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| Was the well purged be | fore sampling? | Yes No | | | | | |
| | | | | | | | |

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | Report | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | Report | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | Report | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | Report | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | Report | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | Report | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | Report | #/100mL | Grab | Quarterly | | | | |
| pH | 00400 | | Report | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | Report | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | Report | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | Report | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWI-151296 Intermediate Intermediate well West of South pond | Report Frequency: Program: | Quarterly Domestic |
|---|---|--------|-----|---|---|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| Was the well purged bef | fore sampling? | Yes No | | | | | |

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | Report | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | Report | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | Report | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | Report | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | Report | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | Report | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | Report | #/100mL | Grab | Quarterly | | | | |
| рН | 00400 | | Report | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | Report | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | Report | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | Report | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWB-151298 Background Background well Southwest of South pond | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|---|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | Report | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | Report | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | Report | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | Report | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | Report | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | Report | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | Report | #/100mL | Grab | Quarterly | | | | |
| pH | 00400 | | Report | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | Report | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | Report | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | Report | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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 TELEPHONE NO
 DATE (mm/dd/yyyy)

INSTRUCTIONS FOR COMPLETING THE WASTEWATER DISCHARGE MONITORING REPORT

Read these instructions before completing the DMR. Hard copies and/or electronic copies of the required parts of the DMR were provided with the permit. All required information shall be completed in full and typed or printed in ink. A signed, original DMR shall be mailed to the address printed on the DMR by the 28th of the month following the monitoring period. Facilities who submit their DMR(s) electronically through eDMR do not need to submit a hardcopy DMR. The DMR shall not be submitted before the end of the monitoring period.

The DMR consists of three parts--A, B, and D--all of which may or may not be applicable to every facility. Facilities may have one or more Part A's for reporting effluent or reclaimed water data. All domestic wastewater facilities will have a Part B for reporting daily sample results. Part D is used for reporting ground water monitoring well data.

When results are not available, the following codes should be used on parts A and D of the DMR and an explanation provided where appropriate. Note: Codes used on Part B for raw data are different.

| CODE | DESCRIPTION/INSTRUCTIONS | CODE | DESCRIPTION/INSTRUCTIONS |
|------|--------------------------------------|------|---|
| ANC | Analysis not conducted. | NOD | No discharge from/to site. |
| DRY | Dry Well | OPS | Operations were shutdown so no sample could be taken. |
| FLD | Flood disaster. | OTH | Other. Please enter an explanation of why monitoring data were not available. |
| IFS | Insufficient flow for sampling. | SEF | Sampling equipment failure. |
| LS | Lost sample. | | |
| MNR | Monitoring not required this period. | | |

When reporting analytical results that fall below a laboratory's reported method detection limits or practical quantification limits, the following instructions should be used, unless indicated otherwise in the permit or on the DMR:

- 1. Results greater than or equal to the PQL shall be reported as the measured quantity.
- 2. Results less than the PQL and greater than or equal to the MDL shall be reported as the laboratory's MDL value. These values shall be deemed equal to the MDL when necessary to calculate an average for that parameter and when determining compliance with permit limits.
- 3. Results less than the MDL shall be reported by entering a less than sign ("<") followed by the laboratory's MDL value, e.g. < 0.001. A value of one-half the MDL or one-half the effluent limit, whichever is lower, shall be used for that sample when necessary to calculate an average for that parameter. Values less than the MDL are considered to demonstrate compliance with an effluent limitation.

PART A -DISCHARGE MONITORING REPORT (DMR)

Part A of the DMR is comprised of one or more sections, each having its own header information. Facility information is preprinted in the header as well as the monitoring group number, whether the limits and monitoring requirements are interim or final, and the required submittal frequency (e.g. monthly, annually, quarterly, etc.). Submit Part A based on the required reporting frequency in the header and the instructions shown in the permit. The following should be completed by the permittee or authorized representative:

Resubmitted DMR: Check this box if this DMR is being re-submitted because there was information missing from or information that needed correction on a previously submitted DMR. The information that is being revised should be clearly noted on the re-submitted DMR (e.g. highlight, circle, etc.)

No Discharge From Site: Check this box if no discharge occurs and, as a result, there are no data or codes to be entered for all of the parameters on the DMR for the entire monitoring group number; however, if the monitoring group includes other monitoring locations (e.g., influent sampling), the "NOD" code should be used to individually denote those parameters for which there was no discharge.

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.

Sample Measurement: Before filling in sample measurements in the table, check to see that the data collected correspond to the limit indicated on the DMR (i.e. interim or final) and that the data correspond to the monitoring group number in the header. Enter the data or calculated results for each parameter on this row in the non-shaded area above the limit. Be sure the result being entered corresponds to the appropriate statistical base code (e.g. annual average, monthly average, single sample maximum, etc.) and units. Data qualifier codes are not to be reported on Part A.

No. Ex.: Enter the number of sample measurements during the monitoring period that exceeded the permit limit for each parameter in the non-shaded area. If none, enter zero.

Frequency of Analysis: The shaded areas in this column contain the minimum number of times the measurement is required to be made according to the permit. Enter the actual number of times the measurement was made in the space above the shaded area.

Sample Type: The shaded areas in this column contain the type of sample (e.g. grab, composite, continuous) required by the permit. Enter the actual sample type that was taken in the space above the shaded area.

Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.

Comment and Explanation of Any Violations: Use this area to explain any exceedances, any upset or by-pass events, or other items which require explanation. If more space is needed, reference all attachments in this area.

PART B - DAILY SAMPLE RESULTS

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed. Daily Monitoring Results: Transfer all analytical data from your facility's laboratory or a contract laboratory's data sheets for all day(s) that samples were collected. Record the data in the units indicated. Table 1 in Chapter 62-160, F.A.C., contains a complete list of all the data qualifier codes that your laboratory may use when reporting analytical results. However, when transferring numerical results onto Part B of the DMR, only the following data qualifier codes should be used and an explanation provided where appropriate.

| ~ | Jues should | be used und un explanation provided where appropriate. |
|---|-------------|---|
| | CODE | DESCRIPTION/INSTRUCTIONS |
| | < | The compound was analyzed for but not detected. |
| | А | Value reported is the mean (average) of two or more determinations. |
| | J | Estimated value, value not accurate. |
| | Q | Sample held beyond the actual holding time. |
| | Y | Laboratory analysis was from an unpreserved or improperly preserved sample. |

To calculate the monthly average, add each reported value to get a total. For flow, divide this total by the number of days in the month. For all other parameters, divide the total by the number of observations. **Plant Staffing:** List the name, certificate number, and class of all state certified operators operating the facility during the monitoring period. Use additional sheets as necessary.

PART D - GROUND WATER MONITORING REPORT

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed. Date Sample Obtained: Enter the date the sample was taken. Also, check whether or not the well was purged before sampling.

Time Sample Obtained: Enter the time the sample was taken.

Sample Measurement: Record the results of the analysis. If the result was below the minimum detection limit, indicate that. Data qualifier codes are not to be reported on Part D.

Detection Limits: Record the detection limits of the analytical methods used.

Analysis Method: Indicate the analytical method used. Record the method number from Chapter 62-160 or Chapter 62-601, F.A.C., or from other sources.

Sampling Equipment Used: Indicate the procedure used to collect the sample (e.g. airlift, bucket/bailer, centrifugal pump, etc.)

Samples Filtered: Indicate whether the sample obtained was filtered by laboratory (L), filtered in field (F), or unfiltered (N).

Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.

Comments and Explanation: Use this space to make any comments on or explanations of results that are unexpected. If more space is needed, reference all attachments in this area.

SPECIAL INSTRUCTIONS FOR LIMITED WET WEATHER DISCHARGES

Flow (Limited Wet Weather Discharge): Enter the measured average flow rate during the period of discharge or divide gallons discharged by duration of discharge (converted into days). Record in million gallons per day (MGD). Flow (Upstream): Enter the average flow rate in the receiving stream upstream from the point of discharge for the period of discharge. The average flow rate can be calculated based on two measurements; one made at the start and one made at the end of the discharge period. Measurements are to be made at the upstream gauging station described in the permit.

Actual Stream Dilution Ratio: To calculate the Actual Stream Dilution Ratio, divide the average upstream flow rate by the average discharge flow rate. Enter the Actual Stream Dilution Ratio accurate to the nearest 0.1.

No. of Days the SDF > Stream Dilution Ratio: For each day of discharge, compare the minimum Stream Dilution Factor (SDF) from the permit to the calculated Stream Dilution Ratio. On Part B of the DMR, enter an asterisk (*) if the SDF is greater than the Stream Dilution Ratio on any day of discharge. On Part A of the DMR, add up the days with an "*" and record the total number of days the Stream Dilution Factor was greater than the Stream Dilution Ratio.

CBOD₅: Enter the average CBOD₅ of the reclaimed water discharged during the period shown in duration of discharge.

TKN: Enter the average TKN of the reclaimed water discharged during the period shown in duration of discharge.

Actual Rainfall: Enter the actual rainfall for each day on Part B. Enter the actual cumulative rainfall to date for this calendar year and the actual total monthly rainfall on Part A. The cumulative rainfall to date for this calendar year is the total amount of rain, in inches, that has been recorded since January 1 of the current year through the month for which this DMR contains data.

Rainfall During Average Rainfall Year: On Part A, enter the total monthly rainfall during the average rainfall year and the cumulative rainfall for the average rainfall year. The cumulative rainfall for the average rainfall year is the amount of rain, in inches, which fell during the average rainfall year from January through the month for which this DMR contains data.

No. of Days LWWD Activated During Calendar Year: Enter the cumulative number of days that the limited wet weather discharge was activated since January 1 of the current year.

Reason for Discharge: Attach to the DMR a brief explanation of the factors contributing to the need to activate the limited wet weather discharge.

STATEMENT OF BASIS FOR STATE OF FLORIDA DOMESTIC WASTEWATER FACILITY PERMIT

| PERMIT NUMBER: | FLA014313-016 |
|--------------------|------------------|
| I EIGHI I TOUIDEIG | 1 L/101 1515 010 |

FACILITY NAME: City of Avon Park WWTP

FACILITY LOCATION: US Highway 27 S, Avon Park, FL 33825 Highlands County

NAME OF PERMITTEE: City of Avon Park

PERMIT WRITER: Bill Robertson, P.E.

1. SUMMARY OF APPLICATION

a. <u>Chronology of Application</u>

Application Number: FLA014313-016-DW1P

Application Submittal Date: November 17, 2020

b. Type of Facility

Domestic Wastewater Treatment Plant

Ownership Type: Municipal

SIC Code: 4952

c. Facility Capacity

Existing Permitted Capacity: Increase in Permitted Capacity*: Proposed Total Permitted Capacity: 0.80 mgd Annual Average Daily Flow 0.70 mgd Annual Average Daily Flow 1.50 mgd Annual Average Daily Flow

*This increase is due to bringing online the two additional percolation ponds that were required by Administrative Order No. AO-05012016 which provided time for the permittee to increase the permitted capacity of R-001 to at least the original permitted capacity of the facility of 1.50 mgd.

d. Description of Wastewater Treatment

Operate an existing 1.50 million gallons per day (MGD) design capacity wastewater treatment plant (WWTP) annual average daily flow (AADF) extended aeration process. The WWTP consists of: pretreatment works with a mechanical micro screen and aerated grit channel system, two (2) concrete oxidation ditches with a total capacity of 1,500,000 gallons, dual clarifiers for a total of 416,000 gallons, RAS/WAS pump station, dual holding tanks for a total of 90,000 gallons, dual sludge drying beds and a single 49,000 gallon chlorine contact chamber. Disinfection is accomplished using liquid sodium hypochlorite.

This facility also has automated septage processing equipment to manage their own and other WWTP facilities biosolids. The maximum capacity of the screw press is 250 dry pounds per hour and 1,095 dry tons per year. All of the filtrate from the press will be pumped back to the headworks of the wastewater treatment facility.

The Department authorizes the demolition and replacement of the headworks with the following configuration: mechanical bar screen in a stainless steel channel, a bypass channel with manual bypass screen, grit removal system, lamella plate separator, grease removal system grit classifier screw and associated appurtenances. The peak hydraulic capacity of the new headworks will be 5.0 MGD.

e. Description of Effluent Disposal and Land Application Sites (as reported by applicant)

Effluent is discharged via R-001, an existing 1.85 MGD annual average daily flow permitted capacity rapid infiltration basin system. R-001 is a reuse system which consists of an existing 1.85 MGD annual average daily flow (AADF) capacity rapid rate land application system (R-001) consisting of eight evaporation/percolation ponds having a capacity of 1.85 MGD located approximately at latitude 27°33' 38" N, longitude 81°31' 3" W.

2. SUMMARY OF SURFACE WATER DISCHARGE

This facility does not discharge to surface waters.

3. BASIS FOR PERMIT LIMITATIONS AND MONITORING REQUIREMENTS

This facility is authorized to direct reclaimed water to Reuse System R-001, a rapid infiltration basin system, based on the following:

| Parameter | Units | Max/ | Limit | Statistical Basis | Rationale |
|--------------------|---------|------|--------|-------------------|--------------------------------------|
| | | Min | | | |
| Flow | MCD | Max | 1.85 | Annual Average | 62-600.700(2)(b) & 62-610.810(5) FAC |
| | MGD | Max | Report | Monthly Average | 62-600.700(2)(b) & 62-610.810(5) FAC |
| BOD, Carbonaceous | | Max | 20.0 | Annual Average | 62-610.510 & 62-600.420(3)(a)1. FAC |
| 5 day, 20C | ma/I | Max | 30.0 | Monthly Average | 62-610.510 & 62-600.420(3)(a)2. FAC |
| | mg/L | Max | 45.0 | Weekly Average | 62-610.510 & 62-600.420(3)(a)3. FAC |
| | | Max | 60.0 | Single Sample | 62-610.510 & 62-600.420(3)(a)4. FAC |
| Solids, Total | | Max | 20.0 | Annual Average | 62-610.510 & 62-600.420(3)(b)1. FAC |
| Suspended | m a/I | Max | 30.0 | Monthly Average | 62-610.510 & 62-600.420(3)(b)2. FAC |
| | mg/L | Max | 45.0 | Weekly Average | 62-610.510 & 62-600.420(3)(b)3. FAC |
| | | Max | 60.0 | Single Sample | 62-610.510 & 62-600.420(3)(b)4. FAC |
| Coliform, Fecal | | Max | 200 | Monthly | 62-62-600.440(5)(a)2 FAC |
| | | | | Geometric Mean | |
| | #/100mL | Max | 200 | Annual Average | 62-62-600.440(5)(a)1 FAC |
| | | Max | 400 | 90th Percentile | 62-62-600.440(5)(a)3 FAC |
| | | Max | 800 | Single Sample | 62-62-600.440(5)(a)4 FAC |
| pH | | Min | 6.0 | Single Sample | 62-600.445 FAC |
| | s.u. | Max | 8.5 | Single Sample | 62-600.445 FAC |
| Chlorine, Total | | Min | 0.5 | Single Sample | 62-610.510 & 62-600.440(5)(c) FAC |
| Residual (For | mg/L | | | | |
| Disinfection) | | | | | |
| Nitrogen, Nitrate, | ma/I | Max | 12.0 | Single Sample | 62-610.510(1) FAC |
| Total (as N) | iiig/L | | | | |

| Parameter | Units | Max/ | Limit | Statistical Basis | Rationale |
|-------------------|-------|------|-------|-------------------|-----------------------------------|
| | | Min | | | |
| Nitrogen, Total | | Max | 3.0 | Annual Average | OGC Case No. 20-0040, DEP No. 20- |
| | | | | | 0065, 62-600.740(2)(b)1, FAC |
| | ma/I | Max | 3.75 | Monthly Average | OGC Case No. 20-0040, DEP No. 20- |
| | mg/L | | | | 0065, 62-600.740(2)(b)2, FAC |
| | | Max | 6 | Single Sample | OGC Case No. 20-0040, DEP No. 20- |
| | | | | | 0065, 62-600.740(2)(b)4, FAC |
| Phosphorus, Total | | Max | 1.0 | Annual Average | OGC Case No. 20-0040, DEP No. 20- |
| (as P) | | | | | 0065, 62-600.740(2)(b)1, FAC |
| | m a/I | Max | 1.25 | Monthly Average | OGC Case No. 20-0040, DEP No. 20- |
| | mg/L | | | | 0065, 62-600.740(2)(b)2, FAC |
| | | Max | 2.0 | Single Sample | OGC Case No. 20-0040, DEP No. 20- |
| | | | | | 0065, 62-600.740(2)(b)4, FAC |

Other Limitations and Monitoring Requirements:

| Parameter | Units | Max/ | Limit | Statistical Basis | Rationale |
|----------------------|---------|------|--------|-------------------|--|
| | | Min | | | |
| Percent Capacity, | percent | Max | Report | Monthly | 62-600.405(4) FAC |
| (TMADF/Permitted | | | | Average | |
| Capacity) x 100 | | | | | |
| BOD, | mg/L | Max | Report | Single Sample | 62-600.660(1) FAC |
| Carbonaceous 5 | - | | - | | |
| day, 20C (Influent) | | | | | |
| Solids, Total | mg/L | Max | Report | Single Sample | 62-600.660(1) FAC |
| Suspended (Influent) | - | | - | | |
| Monitoring | - | - | - | All Parameters | 62-600 FAC & 62-699 FAC and/or BPJ of |
| Frequencies and | | | | | permit writer |
| Sample Types | | | | | |
| Sampling Locations | - | - | - | All Parameters | 62-600, 62-610.412, 62-610.463(1), 62- |
| | | | | | 610.568, 62-610.613 FAC and/or BPJ of |
| | | | | | permit writer |

4. IMPAIRMENT STATUS OF RECEIVING WATERS

This facility does not discharge to surface waters, however, R-001, rapid infiltration basins land application system is located in a nutrient-impaired basin (Okeechobee Basin). When effluent is land applied it infiltrates into groundwater and has the potential to deliver nutrient loads to the aquifer and hydrologically connected surface waters. Monitoring for total nitrogen and total phosphorus is included for R-001, rapid infiltration system in permit condition I.A.1 in order to provide reasonable assurance that the discharge to ground waters will not cause or contribute to the nutrient impairment in the basin.

5. DISCUSSION OF CHANGES TO PERMIT LIMITATIONS

The design capacity of the facility has been changed from 0.8 MGD back to 1.5 MGD because the reuse system has been uprated to achieve at least 1.50 MGD with the addition of two new percolation ponds that provide a total of 1.85 mgd.

The requirement to report the 90^{th} percentile (limit 400 #/100mL) for fecal coliforms has been added to the permit per rule 62-62-600.440(5)(a)3, FAC.

6. BIOSOLIDS MANAGEMENT REQUIREMENTS

Biosolids generated by this facility may be transferred to unknown or disposed of in a Class I solid waste landfill.

See the table below for the rationale for the biosolids quantities monitoring requirements.

| Parameter | Units | Max/ | Limit | Statistical Basis | Rationale |
|---------------------------|----------|------|----------|-------------------|------------------------|
| | | Min | | | |
| Biosolids Quantity | dry tons | Max | Report | Monthly Total | 62-640.650(5)(a)1. FAC |
| (Received) | | | | | |
| Biosolids Quantity | dry tons | Max | Report | Monthly Total | 62-640.650(5)(a)1. FAC |
| (Landfilled) | | | | | |
| Biosolids Quantity | dry tons | Max | Report | Monthly Total | 62-640.650(5)(a)1. FAC |
| (Transferred) | | | | | |
| Monitoring Frequency | | | All Para | meters | 62-640.650(5)(a) FAC |

7. GROUND WATER MONITORING REQUIREMENTS

Ground water monitoring requirements have been established in accordance with Chapters 62-520, 532, 610, and 620, F.A.C. This facility falls within the area covered by FDEP Final Order 20-0065, Okeechobee Basin Management Action Plan and will be required to meet Total Phosphorus and Total Nitrogen limits. The limits will be 1 and 3 mg/L respectively at the groundwater compliance wells.

8. <u>PERMIT SCHEDULES</u>

This permit does not include any action items.

9. INDUSTRIAL PRETREATMENT REQUIREMENTS

At this time, the facility is not required to develop an approved industrial pretreatment program. However, the Department reserves the right to require an approved program if future conditions warrant.

10. ADMINISTRATIVE ORDERS (AO) AND CONSENT ORDERS (CO)

This permit is accompanied by AO-014313-016, effective 05/10/2021, which includes a schedule of compliance. The AO is hereby incorporated by reference. This Administrative Order provides additional time for the permittee to come into compliance with the conditions of Final Order 20-0040 for the Okeechobee BMAP.

11. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

No variances were requested for this facility.

12. THE ADMINISTRATIVE RECORD

The administrative record is available for public inspection electronically at http://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/FLA014313/facility!search, or during normal business hours at the location specified in item 13. Copies will be provided at a minimal charge per page.

13. <u>DEP CONTACT</u>

Additional information concerning the permit and proposed schedule for permit issuance may be obtained during normal business hours from:

Bill Robertson Professional Engineer I South District Office

2295 Victoria Ave Suite 364 Ft. Myers, FL 33901-3875

Telephone No.: (239) 344-5657



CITY OF AVON PARK

WWTP FACILITY PLAN

Prepared for



Prepared by

Kimley »Horn





CITY OF AVON PARK WWTP

FACILITY PLAN

Prepared for: Avon Park

Prepared by: Kimley-Horn and Associates, Inc. THIS IS TO CERTIFY THAT THE ENCLOSED ENGINEERING CALCULATIONS WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

Jamison R. Tondreault, PE Florida Registration Number 84396 Date:

046464009 July 2022 © Kimley-Horn and Associates, Inc. 109 S. Kentucky Avenue Lakeland, FL, 33801 863-226-6877 TEL



EXECUTIVE SUMMARY

The City of Avon Park (City) owns and operates the Avon Park Wastewater Treatment Plant (WWTP) located at 2504 US 27 South, Avon Park, Florida. The facility is currently permitted for an average annual daily flow (AADF) of 1.5 million gallons per day (MGD) and the current AADF is 0.84 MGD (56% capacity).

The City received Clean Water State Revolving Funds (CWSRF) to develop a *Wastewater Treatment Facility Planning Document (Facility Plan)* for the purpose of assessing and determining improvements to the existing wastewater treatment components, determining the improvements required to meet current and future regulatory discharge requirements for nitrogen and phosphorus, and determining the improvements for additional wastewater treatment capacity to serve future population/infrastructure growth.

This was accomplished by:

- Performing a condition assessment to identify existing wastewater treatment issues and deficiencies;
- In coordination with the City, recommending capital improvements to existing treatment components based on the condition assessment;
- Developing alternatives to increase wastewater treatment capacity to 2.0 MGD AADF;
- Developing alternatives for receiving and pretreating septic tank sludge (septage);
- Developing alternatives to meet regulatory (FDEP) limits for total nitrogen and phosphorous discharge to the existing effluent disposal sites (Rapid Infiltration Basins, RIBs); and
- In coordination with City, evaluating and selecting the alternatives and associated capital improvements to meet the City's current and future wastewater treatment requirements.

The *Facility Plan* can then be used as a supporting documentation when requesting additional CWSRF funding (or other sources) for the design and construction of the necessary improvements to rehabilitate/maintain existing equipment, provide increased capacity for growth, and meet FDEP regulatory requirements for nutrient discharges.

The following sections summarize the results of the condition assessment and alternative analysis.



Summary of Condition Assessment and Recommendations

| Table E-1- Capital Improvement Projects for the WWTF | | | | | | | | | | |
|--|------------------------------------|--|------------------------------|--------------------------|--|--|--|--|--|--|
| Improvement # | Component | Improvement | Planning Time Frame Years | Opinion of Probable Cost | | | | | | |
| 1 | Lakeside Ditches | Replace and upsize Lakeside Rotor complete assembly and install VFDs (Dependent on Alternative Selection for Expansion) | 0-1 | \$750,000 | | | | | | |
| 2 | Clarifier | Drain and Inspect Clarifiers, Replace both Clarifier Assemblies (Dependent on Alternative Selection for Expansion) | 0-1 | \$400,000 | | | | | | |
| 3 | RAS/WAS Pump Station | Replace RAS/WAS pump station with an above ground pump station and demolish existing structures. (Dependent on Alternative Selection for Expansion | 0-5 | \$450,000 | | | | | | |
| 4a-c | Chlorine Contact Chamber | Paint Effluent Trough, Minor Repairs, and Bypass. Paint Chlorine Injection Line. Replacement of skid pump assembly. Remove chain fall and railing system | 0-5 | \$70,000 | | | | | | |
| 5 | Plant Non-Potable Water Station | Replace Non-Potable Plant Water Station (pumps, hydro-tank, and above ground piping) | 0-5 | \$75,000 | | | | | | |
| 6 | Effluent Pump Station | Paint ductile iron pipe | 0-5 | \$1,000 | | | | | | |
| 7a | Sludge Holding Tank | Expand Sludge Digestion Capacity, Add Aeration and Decant System | 0-1 | \$1,100,000 | | | | | | |
| 7b | Sludge Holding Tank | Drain and inspect existing sludge holding tanks, replace aeration and decant system | 0-5 | \$250,000 | | | | | | |



| 8a-b | Dewatering/Sludge Handling | Floor Drain w/ Cap and Curbing. Disposable Absorbent Mats or Spill Containment Pallet. Roof Upgrades | 0-5 | \$91,000 |
|------|-------------------------------|--|-----|-----------------------------|
| 9 | Plant Drain Station | Elevate control panel and check connection to float. | 0-5 | \$5,000 |
| 10 | Septage Receiving | Replace current system | 0-1 | See Alternatives Evaluation |
| 11 | SCADA | SCADA Modifications to allow Control and receive Notifications | 0-5 | \$110,000 |
| 12 | Generator | Replace Generator | 0-1 | \$750,000 |
| 13 | Office Building | New Office/Storage Building with new Lab equipment | 0-5 | \$850,000 |



Summary of Alternative Analysis

The alternatives for determining the facility modifications requirements to meet the following are presented:

- Meet more stringent FDEP ground water limits of total nitrogen (TN) and total phosphorous (TP) (i.e., advanced wastewater treatment);
- Provide pretreatment and protection of downstream equipment with a septage receiving station; and
- Expand the Plants Capacity for future growth (i.e., 1.5 MGD to 2.0 MGD);

The four process alternatives evaluated for increased nutrient removal and additional capacity are:

- Rehab and upgrade existing infrastructure (i.e. rotors and clarifiers) Maintain existing secondary treatment technology by replacing and/or rehabilitating existing equipment. Construct new, free standing post-anoxic tank for denitrification with supplemental carbon addition to meet 3 mg/L TN. Construct new, free standing anaerobic tank for enhanced biological phosphorus removal (EBPR). Construct new tertiary filters and provide metal salt addition for chemical phosphorus removal to meet 1 mg/L TP.
- 2. Conversion to a Membrane Bioreactor (MBR) system Convert existing oxidation ditches to diffused aeration in a plug flow operation. Convert existing secondary clarifiers into membrane bioreactors tanks. Install internal baffle walls inside existing oxidation ditches to create dedicated anaerobic, pre-anoxic, aerobic, post-anoxic, and re-aeration zones. Provide supplemental carbon addition to the Anoxic zone to meet 3 mg/L TN. Include metal salt addition feed system before the membranes for chemical phosphorus removal to meet 1 mg/L TP.
- 3. Retrofit existing infrastructure to utilize a diffused aeration system and mixers -Convert existing oxidation ditches to diffused aeration with mixers to provide horizontal velocity to existing maintain completely stirred tank reactor (CSTR) operation. Construct new, free standing post-anoxic tank for denitrification with supplemental carbon addition to meet 3 mg/L TN. Construct new, free standing anaerobic tank for enhanced biological phosphorus removal (EBPR). Construct new tertiary filters and provide metal salt addition for chemical phosphorus removal to meet 1 mg/L TP.
- 4. Retrofit existing infrastructure to create zones (i.e. anaerobic, aerobic, anoxic) and utilize a diffused aeration system and mixers Convert existing oxidation ditches to diffused aeration in a plug flow operation. Install internal baffle walls inside existing oxidation ditches to create dedicated anaerobic, pre-anoxic, aerobic, post-anoxic, and re-aeration zones. Construct additional tankage as required for expansion to 2 MGD and nutrient removal. Provide supplemental carbon addition to the Anoxic zone to meet 3 mg/L TN. Include metal salt addition feed system before the membranes for chemical phosphorus removal to meet 1 mg/L TP.



The alternatives for septage receiving analysis are:

- 1. Install new rock trap and septage receiving unit
- 2. Install new rock trap and septage receiving unit including grease and grit removal with process controls
- 3. Install new rock trap and septage receiving unit including grit removal and process controls

Recommended Alternatives

After coordination with City staff, the below alternatives are recommended:

Septage Receiving - Alternative No 2 – Install rock trap, septage receiving unit including grease and grit removal with process controls.

Nutrient Removal and Expansion Alternative No. XX- TO BE DETERMINED AT PUBLIC WORKSHOP



Implementation Plan

TO BE FINALIZED FOLLOWING SELECTION OF ALTERNATIVE



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Appendix A – FDEP Permit

Appendix B – Expansion Alternatives Opinion of Probable Costs



1. Introduction

The City of Avon Park (City) received Clean Water State Revolving Funds (CWSRF) to develop a *Wastewater Treatment Facility Planning Document* (*Facility Plan*) for the purpose of assessing and determining improvements to the existing wastewater treatment plant (WWTP) components, determining the improvements required to meet current and future regulatory discharge requirements for nitrogen and phosphorus, and determining the improvements for additional wastewater treatment capacity to serve future population/infrastructure growth.

1.1. Objectives

The primary objectives of the Facility Plan are to:

- Perform a condition assessment to identify existing wastewater treatment issues and deficiencies.
- Recommending capital improvements to existing treatment components based on the condition assessment.
- Develop alternatives to increase wastewater treatment capacity to 2.0 MGD AADF.
- Develop alternatives for receiving and pretreating septic tank sludge (septage);
- Develop alternatives to meet regulatory (FDEP) limits for total nitrogen and phosphorous discharge to the existing effluent disposal sites (Rapid Infiltration Basins, RIBs); and
- Evaluate and select the alternatives and associated capital improvements to meet the City's current and future wastewater treatment requirements.

The *Facility Plan* document provides the framework for the City to plan, budget, and pursuing funding for wastewater treatment capital improvement projects based on existing WWTP conditions, future wastewater treatment capacity requirements, existing and anticipated regulatory requirements, and improving wastewater treatment system operation, reliability, and long-term sustainability. It is noted that the analyses presented in this document are based on certain assumptions and parameters that should be updated as conditions change with time.

The *Facility Plan* document also meets the planning document requirements when requesting funding and grants (CWSRF) for design and construction of the proposed capital improvements and would be included in the FDEP CWSRF Request for Inclusion submittal package.



1.2. Facility Description

The City owns and operates one wastewater treatment plant (WWTP) which services approximately 10.45 square miles in central Highlands County. The WWTP operates under FDEP permit FLA14313 and has a permitted capacity of 1.5 million gallons per day (MGD) annual average daily flow (AADF). Based on DMR data from January 2018 to December 2021, the City of Avon Park Wastewater Treatment Facility flows have averaged 0.840 MGD (approximately 56% of capacity). Approximately 38 lift stations in the City's wastewater collection system contributes raw sewage to the WWTP. The City currently receives septage from approximately 16 different septic tank sludge (septage) pump-out companies (haulers). Most haulers dump residential septage while some may dump sludge from commercial or industrial sources and/or chemically treated wastewater from portable toilets (i.e., 'porta johns', 'honey bucket', etc).

The WWTP process consists of the following:

1.2.1. Preliminary Treatment (Headworks)

Raw wastewater from the City's service area is pumped directly into the pretreatment headworks from multiple off-site lift stations. Large solids are removed from the influent wastewater flows with a mechanical bar screen in a concrete channel. After passing through the screen, the original plant design directed wastewater flows into an aerated grit removal channel, however the grit system is currently out of service and is being bypassed through a channel controlled by a weir.

1.2.2. Secondary Treatment

Screened flows are split into two (2), parallel cast-in-place, concrete oxidation ditches of approximately 750,000 gallons each (1,500,000 gallons total). The WWTP is designed to operate in the extended aeration mode.

Effluent from each of the oxidation ditches flows by gravity, controlled with a weir, to secondary clarifiers. Solids settling occurs in two (2) circular, 55-ft diameter clarifiers. Flow is generally split evenly between the two clarifiers.

Settled sludge from the clarifiers (underflow) is pumped by the Return Activated Sludge (RAS) pump station to the beginning of the oxidation ditches or pumped by the Waste Activated Sludge pump station to the sludge holding tanks. This station includes two (2), dry pit, centrifugal pumps with room for a third pump. These pumps are followed by a series of valves to direct the solids to the oxidation ditches or biosolids processing.

1.2.3. Disinfection

Secondary clarified effluent (supernatant) is directed to one (1), 49,000-gallon, cast-in-place concrete, chlorine contact chamber with liquid sodium hypochlorite injected for basic level disinfection through contact time.

1.2.4. Effluent Disposal

Disinfected (chlorinated) effluent is distributed to six (6) onsite rapid infiltration basins (RIBs) and two (2) offsite RIBs. Flow to onsite RIBs is via gravity and measured by a v-notch weir and ultrasonic level measurement. Flow to offsite RIBs is pumped and measured by a magnetic (mag meter) flow meter.



The six (6) on-site and two (2) off-site rapid infiltration basins (RIBs) are rated for 1.85 MGD AADF of effluent disposal capacity

1.2.5. Biosolids and Septage Storage and Processing (Dewatering)

WAS (biosolids) is pumped to two (2) 45,000-gallon (each) aerated sludge holding tanks. Septage is screened and dumped into old drying beds before also transferred to the sludge holding tanks.

The sludge (WAS and septage) are processed by first thickening and then dewatering. Thickening is accomplished by allowing to sludge to settle by turning off the aeration system and allowing the liquids to separate from the solids (i.e., liquid solid separation). The decanted liquid (supernatant) then drains via gravity to the onsite WWTP plant drain pump station and discharged (pumped) to the headworks for further treatment.

The thickened sludge is then dewatered using two (2) screw presses with a capacity of 250 dry pounds per hour (each). Dewatered sludge solids (biosolids and septage) are hauled and disposed at the Cedar Trails Landfill by Republic Services. The liquid from the screw press dewatering process flows by gravity to the onsite WWTP plant drain pump station and discharged (pumped) to the headworks for further treatment.

See *Figure 1* for the Existing Process Flow Diagram (PFD).


Figure 1 – Process Flow Diagram





1.3. Summary of Historical Influent Flow Data

Historical Daily flow data was collected from the City to evaluate the monthly flows from January 2018 to December 2021. **Table 1** summarizes the average annual flow, maximum 30-day average flow, and max day flow over this period. The maximum day peaking factor was also calculated based on annual average.

| | Table 1 - WWTP Flows | | | | | | | | |
|------|-------------------------|-------------------------------------|------------------|---------------------------|-------------------------|--|--|--|--|
| Year | Annual Average (MGD) | Maximum 30- day Average (MGD) | Max Day (MGD) | Max Day Peaking Factor | MMADF Peaking Factor | | | | |
| 2018 | 0.80 | 0.87 | 1.27 | 1.58 | 1.08 | | | | |
| 2019 | 0.78 | 0.86 | 1.62 | 2.07 | 1.10 | | | | |
| 2020 | 0.80 | 0.92 | 1.58 | 1.58 | 1.13 | | | | |
| 2021 | 0.84 | 0.89 | 1.62 | 1.62 | 1.04 | | | | |

Figure 2 graphs the average daily flow (ADF) and monthly average flow conditions over this period. **Figure 3** graphs the monthly average flow conditions and the annual average flow conditions over this period. Both show the flows staying steady over time.



Figure 2 – Historical Maximum Daily Flow and Monthly Average Flow







Figure 3 - Historical Monthly Average and Annual Average Flow

1.3.1. Seasonal Flow Data

Table 2 summarizes the minimum, average, and maximum rainfall and total daily flow, monitored at WWTP. This rainfall data is recorded daily by a nearby receiving station in Avon Park, Fl.

| Table 2 - WWTP Seasonal Data Summary | | | | | | |
|--------------------------------------|----------------|------|------|------|--|--|
| Parameter Unit Minimum Average Maxim | | | | | | |
| Rainfall | Inches per day | 0.00 | 0.12 | 4.02 | | |
| Daily Flow | MGD | 0.70 | 0.82 | 2.07 | | |

Figure 4 plots the WWTP daily total flow against the rainfall data recorded from January 2018 to December 2021. This is beneficial since a trend between data sets would indicate the facility experiences issues with stormwater infiltration. There does appear to be a slight correlation between rainfall events and the total flow coming through WWTP suggesting there is some stormwater infiltration in the collection system Precipitation data only exists from the month of January to August in 2021.





Figure 4 - Historical Monthly Flow and Precipitation Data



1.4. Summary of Historical Influent Loading and Effluent Discharge Data

1.4.1. Influent Loading Data

Table 3 summarizes the minimum, maximum, and average data values for influent parameters routinely monitored at WWTP. These include Total Suspended Solids (TSS) and 5-day Biochemical Oxygen Demand ($cBOD_5$) from January 2018 to December 2021. After further review of the data, the averages are high due to large spikes caused from plant upsets, equipment failure, and when septage was discharged to the front of the plant. Removing the outliers, the averages used for $cBOD_5$ and TSS were 238 mg/L and 248 mg/L, respectively. These numbers were utilized in our evaluation.

| Table 3 - WWTP Influent Data Summary | | | | | | | |
|--------------------------------------|---------|-----|-------|---------|--|--|--|
| Parameter | Unit | Min | Мах | Average | | | |
| TSS Concentration | mg/l | 79 | 513 | 248 | | | |
| TSS Loading | lbs/day | 553 | 3,593 | 1,738 | | | |
| cBOD₅ Concentration | mg/l | 109 | 443 | 238 | | | |
| cBOD₅ Loading | lbs/day | 763 | 3,103 | 1,667 | | | |

Influent wastewater is characterized by a variety of different factors. One of the most defining properties of raw wastewater is total solids content. Larger solid materials such as rags are separated from the influent steam at the facility headworks mechanical screen; however, there are still colloidal solids that must be removed. TSS is a measure of the solids that can be filtered utilizing a 2.0 µm glass filter. The measure of TSS removed from the influent wastewater is a typical standard used to measure the performance of a treatment plant. **Figure 5** graphs the daily and monthly average influent TSS concentration from January 2018 to December 2021. The influent TSS concentration at WWTP is consistent with medium-strength wastewater when the outliers are removed.





Figure 5 - Monthly Average Historical Influent TSS Concentration

Raw wastewater contains many different bacteria which multiply as they feed on available organic material. Another standard used to measure the performance of a treatment facility is the change in $cBOD_5$. $cBOD_5$ is an indicator of the number of biodegradable organic carbon in a sample of wastewater. Microorganisms utilize dissolved oxygen in the surrounding water to help break down organic material and convert it into carbon dioxide, water and smaller organic compounds. Therefore, the more microbes in the wastewater, the more oxygen is required which equates to a higher $cBOD_5$. **Figure 6** graphs the daily and monthly average influent $cBOD_5$ concentration from January 2018 to December 2021. WWTP's influent BOD_5 concentration is consistent with medium-strength wastewater when the outliers are removed.





Figure 6 - Monthly Average Historical Influent cBOD₅ Concentration

Table 4 summarizes the annual average and maximum monthly average cBOD₅ and TSS loadings from January 2018 to December 2021. **Table 5** summarizes the historical peaking factors for each parameter as well.

| Table 4 - Historical Influent Pollutant Loads | | | | | | | |
|---|----------------------------|-------|-------|-------|-------|--|--|
| Parameter (Ibs/day) | Condition | 2018 | 2019 | 2020 | 2021 | | |
| | Annual Average | 1,472 | 1,781 | 1,789 | 1,633 | | |
| cBOD₅ | Maximum Monthly Average | 2,176 | 5,444 | 2,932 | 2,049 | | |
| | Annual Average | 1,961 | 2,553 | 1,812 | 1,211 | | |
| TSS | Maximum Monthly Average | 3,305 | 6,640 | 5,475 | 2,194 | | |



| | Table 5 - Historical Influent Pollutant Load Peaking Factors | | | | | | | | |
|------------------------|--|------|------|------|------|---------|--|--|--|
| Parameter (Ibs/day) | Condition | 2018 | 2019 | 2020 | 2021 | Average | | | |
| cBOD₅ | Maximum Monthly Average | 1.48 | 3.06 | 1.64 | 1.25 | 1.86 | | | |
| TSS | Maximum Monthly Average | 1.69 | 2.60 | 3.02 | 1.81 | 2.28 | | | |

Figure 7 plots the historical plant flow against the $cBOD_5$ and TSS data. The $cBOD_5$ readings are represented by the red line, the TSS readings are represented by the green line and the flow is represented by the blue line. The data indicates there is an inverse relationship between the plant flow and the BOD_5 and TSS level recorded. In 2021, a large industrial user, Nucor, started discharging to the City, which has low TSS and $cBOD_5$ concentrations.





Figure 7 - Historical Daily Flow, cBOD5 and TSS Influent Data

The influent data shows that the cBOD₅ and TSS has been trending downwards due to the increase in industrial flows from Nucor that is lower strength and due to the decreased in plan upsets. In addition, the concentrations are in line with what the plant was originally designed for.





1.4.2. Effluent Discharge Data

Current Permitted Effluent Discharge Requirements

WWTP is currently permitted under FLA014313 to discharge a total of 1.85 MGD AADF effluent to rapid infiltration basins. **Appendix A** includes a copy of the existing permit. The effluent is disposed of by onsite and offsite rapid infiltration basins. The permit includes the following effluent limits and groundwater well limits mentioned below:

| Effluent Limits | Ground Water Monitoring Well Limits (Rapid |
|--|--|
| | Infiltration Basins) |
| Flow limit of 1.85 MGD | |
| cBOD₅limit | TDS limit |
| 20.0 mg/l (Annual Average) | ≻ 500 mg/l |
| > 30.0 mg/l (Monthly Average) | Chloride limit |
| > 45.0 mg/l (Weekly Average) | ≻ 250 mg/l |
| ➢ 60.0 mg/l (Single Sample) | Sulfate limit |
| TSS limit | ➢ 250 mg/l |
| 20.0 mg/l (Annual Average) | Cadmium limit |
| > 30.0 mg/l (Monthly Average) | ➢ 0.005 mg/l |
| ➢ 45.0 mg/l (Weekly Average) | Chromium limit |
| ➢ 60.0 mg/l (Single Sample) | ➢ 0.1 mg/l |
| | Lead limit |
| Fecal Coliform limit of 200 #/100ml | ➢ 0.015 mg/l |
| pH limit | Fecal Coliform limit of 4 #/100ml |
| · ≻ 6.0 minimum | TN limit |
| > 8.5 maximum | ≻ 3.0 mg/l |
| Minimum Chlorine Residual of 0.5 mg/l | TP limit |
| Nitrogen, Nitrate Total (as N) 12 mg/l | ≻ 1.0 mg/l |
| Total Nitrogen: Report | pH limit |
| Total Phosphorus: Report | > 6.5 minimum |
| | > 8.5 maximum |
| | |



Summary of Historical Effluent Discharge Data

Prior to March 2021, effluent discharge did not have permitted Total Nitrogen (TN) or Total Phosphorous (TP) limitations. However, since the WWTP is within the Lake Okeechobee Basin, a basin management action plan is now in place to reduce nutrients to the ground water. As a result, FDEP regulations have limited the TN groundwater to 3.0 mg/l and TP groundwater to 1.0 mg/L in response to the Lake Okeechobee *Basin Management Action Plan*. An engineer or geologist's report as part of the Administrative Order as part of the FDEP renewed permit is required to evaluate if the effluent discharge does not cause or contribute to the total nitrogen or total phosphorus violations. The engineer or geologist's report may justify different groundwater or effluent limits than a total nitrogen of 3mg/L of TN and 1mg/L of TP. If the ground water limits are confirmed to be 3mg/L TN and 1 mg/L TP, then based on the below effluent nitrate, TP, and TN concentrations, improvements to the City's WWTP are expected. This planning document evaluated improvements to discharge an effluent TN of 3 mg/L and an effluent TP of 1 mg/L.

Table 6 summarizes the annual average, maximum monthly average, and removal efficiency for cBOD₅, TSS, and Nitrate concentrations.

| | Table 6 - Historical Effluent Pollutant Concentrations | | | | | | | |
|---------------------|--|-------|-------|-----------|-----------|-----------|-----------|-----------|
| Parameter (mg/l) | Condition | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| | Annual Average | 9.6 | 6.5 | 8.0 | 5.5 | 6.2 | 6.9 | 6.4 |
| cBOD₅ (Effluent) | Maximum Monthly Average | 15.9 | 13.8 | 19.0 | 14.0 | 20.0 | 9.4 | 7.6 |
| (, | Removal Efficiency | 95.8% | 97.3% | 97.3 % | 97.6 % | 97.6 % | 97.5 % | 97.3 % |
| | Annual Average | 16.2 | 13.2 | 18.7 | 12.8 | 7.0 | 7.3 | 5.2 |
| TSS (Effluent) | Maximum Monthly Average | 23.8 | 22.8 | 48.3 | 34.8 | 14.2 | 29.9 | 16.3 |
| | Removal Efficiency | 90.5% | 98.6% | 97.8 % | 95.8 % | 98.1 % | 97.3 % | 97.0 % |
| Nitrogen. | Annual Average | 1.8 | 2.0 | 5.5 | 5.4 | 9.1 | 4.4 | 2.2 |
| Nitrate Total as | Maximum Monthly Average | 1.5 | 1.4 | 0.2 | 2.5 | 6.2 | 8.0 | 7.9 |
| (Effluent) | Removal Efficiency | - | - | - | - | - | - | - |

Figure 8 graphs the TSS readings against the monthly permit limit of 30 mg/l. The TSS concentration did surpass the permit limit of 30 mg/l on multiple occurrences. These exceedances were primarily due to equipment failure, plant upsets, and sending septage to the front of the plant in the past. **Figure 9** graphs the effluent $cBOD_5$ readings against the monthly permit limit of 30 mg/l. Although there was a relative spike



in the $cBOD_5$ concentration, the loadings never exceeded the effluent limit. **Figure 10** graphs the effluent nitrate against the monthly Nitrate permit limit of 12 mg/L. In the figure, there was a relative spike in the Nitrate concentration, however loadings never exceeded the current effluent limit.



Figure 8- Historical Effluent TSS Concentrations

Figure 9 - Historical Effluent cBOD₅ Concentrations



Kimley »Horn





Figure 10- Historical Effluent Total Nitrate

Table 7 summarizes total phosphorus data for the effluent. Testing of total phosphorus began in April of 2021 and is presently still being tested.

| Tal | Table 7 – Monthly Average for Effluent Total Phosphorus | | | | | | |
|------------------------|---|---------------|---------------|--------------|--------------|--------------|--|
| Parameter (Ibs/day) | Condition | March 2021 | April 2021 | May 2021 | June 2021 | July 2021 | |
| Total | Monthly Average (mg/L) | - | 6.85 | 1.35 | 2.92 | 4.45 | |
| Phosphorus | Maximum Conc. (mg/L) | - | 20 | 2.2 | 5.4 | 5.6 | |
| Parameter (Ibs/day) | Condition | Aug. 2021 | Sept. 2021 | Oct. 2021 | Nov. 2021 | Dec. 2021 | |
| Total | Monthly Average (mg/L) | 4.68 | 2.52 | 2.37 | 1.43 | 1.2 | |
| Phosphorus | Maximum Conc. (mg/L) | 6.1 | 3.8 | 3.2 | 2 | 1.3 | |



Table 8 summarizes total nitrogen data for the effluent. Testing of total nitrogen began in April of 2021 and is being tested weekly.

| Table 8 – Monthly Average for Effluent Total Nitrogen | | | | | | |
|---|---------------------------|---------------|---------------|--------------|--------------|--------------|
| Parameter (Ibs/day) | Condition | March 2021 | April 2021 | May 2021 | June 2021 | July 2021 |
| Total Nitrogen | Monthly Average (mg/L) | - | 5.36 | 2.24 | 2.96 | 6.05 |
| rotai Nitrogen | Maximum Conc. (mg/L) | - | 19 | 3.61 | 4.3 | 9.17 |
| Parameter (Ibs/day) | Condition | Aug. 2021 | Sept. 2021 | Oct. 2021 | Nov. 2021 | Dec. 2021 |
| Total Nitrogon | Monthly Average (mg/L) | 7.55 | 2.22 | 2.2 | 2.56 | 3.39 |
| i otar Mit Ogen | Maximum Conc. (mg/L) | 12 | 3.96 | 2.83 | 4.18 | 8.82 |



1.5. Population and Flow Projections

This section presents a discussion of the projected population growth within the City's utility service area. The population projections were used as the basis for the wastewater flow projections. For the areas that are currently served, we evaluated population growth models developed by the Southwest Florida Water Management District (SWFWMD). SWFWMD's growth model is based in ArcGIS and is a combination of the population projections made by the University of Florida's Bureau of Economic and Business Research (BEBR) and the US Census block-level data. The SWFWMD model has population data at the parcel level for all of Highlands County, which allows for projecting populations for any service area.

The below population-based flow projections are calculated using an estimated City's Level of Service (LOS) standard of 250 gpd/Equivalent Residential Unit(s) (ERU). The City's per capita flow is calculated by dividing the 250 gpd/ERU LOS standard by 2.4 persons per household (per the *U.S. Census, 2014-2020* data). Therefore, the City's LOS standard is approximately 104 gpd/capita.

The population based projected flows were then added to the 2021 AADF. The population and corresponding flow were then projected out 20 years using the BEBR high growth rate for a more conservative linear growth. The service area population growth over the next 20 years from these sources is provided in *Table 09.*

| | Table 9: Population/Flow Projections based on SWFWMD/BEBR | | | | | | | |
|------|---|--------------------|----------------------------------|-----------------------------|---------------|------------|--|--|
| Year | Estimated Population Served Sewer by the City of Avon Park | Equivalent ERUs | Annual Population Increase | Annual Percent Change | AADF (MGD) | % Capacity | | |
| 2021 | 10,200 | 3,360 | | | 0.84 | 56% | | |
| 2022 | 10,521 | 3,537 | 321 | 3.05% | 0.88 | 59% | | |
| 2023 | 10,847 | 3,718 | 327 | 3.01% | 0.92 | 61% | | |
| 2024 | 11,180 | 3,902 | 332 | 2.97% | 0.96 | 64% | | |
| 2025 | 11,518 | 4,089 | 339 | 2.94% | 1.00 | 67% | | |
| 2026 | 11,863 | 4,279 | 345 | 2.91% | 1.04 | 69% | | |
| 2027 | 12,214 | 4,473 | 351 | 2.87% | 1.09 | 72% | | |
| 2028 | 12,571 | 4,671 | 357 | 2.84% | 1.13 | 75% | | |
| 2029 | 12,935 | 4,872 | 364 | 2.81% | 1.17 | 78% | | |
| 2030 | 13,306 | 5,076 | 370 | 2.78% | 1.22 | 81% | | |
| 2031 | 13,683 | 5,285 | 377 | 2.76% | 1.26 | 84% | | |
| 2032 | 14,067 | 5,497 | 384 | 2.73% | 1.31 | 87% | | |
| 2033 | 14,458 | 5,713 | 391 | 2.71% | 1.36 | 91% | | |
| 2034 | 14,856 | 5,933 | 398 | 2.68% | 1.41 | 94% | | |
| 2035 | 15,262 | 6,158 | 405 | 2.66% | 1.46 | 97% | | |



| 2036 | 15,540 | 6,330 | 278 | 1.79% | 1.49 | 100% |
|------|--------|-------|-----|-------|------|------|
| 2037 | 15,823 | 6,505 | 283 | 1.79% | 1.53 | 102% |
| 2038 | 16,111 | 6,683 | 288 | 1.79% | 1.57 | 104% |
| 2039 | 16,404 | 6,865 | 293 | 1.79% | 1.61 | 107% |
| 2040 | 16,703 | 7,050 | 299 | 1.79% | 1.64 | 110% |
| 2041 | 17,007 | 7,238 | 304 | 1.79% | 1.68 | 112% |

Projections show that the 1.5 MGD permitted capacity of the plant is projected to be exceeded by 2037.

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2. Existing WWTP Condition Assessment

2.1. Introduction

This section presents a summary of the Avon Park WWTP infrastructure condition assessment with respect to age, projected remaining useful life, and projected performance over a 5-year planning horizon. The condition assessment provides a broad assessment of buildings, individual components, unit processes, and process structures that serve as a basis for planning and development of improvement projects. The primary objective of the condition assessment is to develop infrastructure renewal and/or replacement (R&R) recommendations for buildings, individual components, unit processes, and process structures that are nearing the end of their useful life or are detrimental to the quality or operational reliability of the WWTP.

A condition assessment was performed for the following treatment processes and components:

- ★ Oxidation Ditches
- \star Brush Aerators
- ★ Secondary Clarifiers
- ★ Return Activated Sludge Pumps
- ★ Waste Activated Sludge Pumps
- ★ RAS/WAS Pump Station
- ★ Chlorine Contact Chambers
- ★ Chlorine Building
- \star Plant Water Station
- ★ Reclaim Pump Station
- ★ Sludge Digestor
- ★ Dewatering:Sludge Processing Station
- \star Plant Drain Station

The wastewater treatment plant was designed for an average influent CBOD₅ concentration of 250 mg/l and an average influent total suspended solids (TSS) concentration in the range of 200-250 mg/l. The entire process is designed such that the effluent leaving the treatment facility meets the below FDEP permit requirements.

- ★ Septage Receiving Station
- Process Automation



2.2. Condition Assessment and Evaluation Criteria

The condition assessment conducted in **December 2021** included visual inspections and qualitative field evaluations of WWTF infrastructure by a multi-discipline engineering team. The assessment team visited the WWTF, evaluated visible above grade infrastructure, and discussed operation and maintenance history of the major facilities and components with staff. Input regarding condition, operations and maintenance issues, and recent improvements, was incorporated into the overall condition assessment. Pre-evaluation activities included facility record drawing review, infrastructure data collection, discharge monitoring data review and analysis, and process control data review and analysis.

The objective of the field evaluation was to collect sufficient information to:

- Document the general condition of WWTF infrastructure
- Identify Operation and Maintenance (O&M) issues (e.g., constraints, obsolescence, capacities)
- Determine whether the component/structure/building needs renewal, replacement or further investigation
- Develop a budgetary estimate of probable cost to implement the recommendation

The evaluation did not include a comprehensive assessment of safety issues or compliance with legal requirements such as building codes or OSHA compliance. However, various codes were used as guidelines to identify potential non-compliance issues. Assessments where confined space entry procedures and/or materials testing was required were not performed. The general approach for the equipment, structural, and electrical condition assessments is presented in the following sections.



2.3. Condition Assessment

Based on the field evaluation, overall, the WWTP appears to be in fair physical condition. The WWTP structures and equipment were initially constructed in the mid-1980s and are properly operating except for the existing headworks and septage receiving unit which is capturing a small amount of screenings and no grit. In addition, the sludge holding tank decant system and ditch drains and clarifiers are clogged and require treatment.

A general condition assessment overview and improvements recommendation summary for the major unit processes, electrical systems, and I&C systems are discussed in the following sections.

2.3.1. Preliminary Treatment

Raw wastewater from the Avon Park Service area is pumped directly into the pretreatment structure in the WWTP from multiple off-site lift stations. Large solids are removed from the influent wastewater flows with a mechanical bar screen in a concrete channel. After passing through the screen, the original plant design directed wastewater flows into an aerated grit removal channel. The current equipment is bypassed through a channel controlled by a weir.

The screening and grit system and structure are in poor condition showing signs of concrete degradation and wear. The grit and air system are currently inoperable and being bypassed. Little to no screenings are being captured leading to excessive wear and tear on process equipment which results in increased breakdowns. A new standalone headworks system is under construction and expected to be completed in early 2023. The headworks capacity was designed to handle average annual daily flow of 2MGD and a peak hour flow of 5 MGD to meet the future expansion capacity as detailed within.

2.3.2. Secondary Treatment

Oxidation Ditches

Flow enters from the influent into two parallel Lakeside oxidation ditches that were constructed in 1986. The influent is mixed using brush aerators that help maintain a minimum mixed liquor suspended solids (MLSS) velocity around each ditch. As the mixed liquor circulates around the ditch, BOD and DO are reduced and denitrification occurs. Flow exits the ditches through adjustable effluent weirs into an effluent box and piping directs flows to the clarifiers.

The volume for both ditches is approximately 750,000 gallons each (1,500,000 gallons total). Upon inspection of physical condition, the oxidation ditches appear to be in fair to average condition. They showed normal wear and the structural integrity of the tanks appeared intact with some signs of concrete degradation and minor cracking. The mixed liquor color is normal. Operators have stated that the basins prefer to be run at 3,000 mg/L MLSS; however, at this time, the MLSS is about 5,000 mg/L due to the limited capacity of the existing sludge holding tanks that prevents the Operator from continuously wasting solids



| Table 10 - Existing Oxidation Ditch Information | | | | | | |
|---|-----------------|--|--|--|--|--|
| Description | Component | | | | | |
| Lakeside Oxidation Ditches | | | | | | |
| Width | 42.75 ft | | | | | |
| Length | 219.33 ft | | | | | |
| Total Volume per Ditch | 0.75 MG | | | | | |
| Condition | Fair to Average | | | | | |
| Meet Existing Capacity | Yes | | | | | |

Surface Rotors

Surface rotors provide mechanical aeration to oxidize organic matter and for nitrification. The surface rotor is an aeration device that transfers oxygen into the mixed liquor to support microbial life and keep the contents of the ditch mixed and moving. As the mixed liquor passes through the ditches, the conditions within the ditches are alternated between aeration (oxic) conditions and anoxic conditions to accomplish both nitrification and denitrification without internal recycle pumping. The velocity of the mixed liquor in the oxidation ditch must be maintained to prevent settling of solids.



Visually, the rotor assemblies look to be in fair to poor condition. The lack of a cover over the aeration rotors contributes to the concrete wear and appearance mentioned previously (see Oxidation ditches). All four of the aerator motor and gearbox assemblies were operating and appeared to be in fair condition. However, there is a buildup of grease from maintenance and leakage that needs to be addressed. The seal plates on the walls of the basins where they are mounted are failing leading to leakage from the basin. The leakage results in rust and operational concerns. Multiple blades were missing on the existing rotors, reducing the oxygen transfer and effectiveness.



Like the oxidation ditch, the rotors were installed in 1986. The typical lifespan of the rotors are 20-30 years and these are over 35 years old. The operator has stated that the south oxidation ditch cannot be taken offline due to a clogged drain line that prevents draining the ditch for service. The operator has stated that a deflector plate of at least two rotors are broken which negatively affects the ability to mix the tank for aeration as well as preventing significant solids settling on the tank bottom. The basins have not

been drained resulting in no maintenance to the aerator brushes. Through coordination with the City and Lakeside, it is recommended that the complete rotor assemblies be replaced due to the condition of multiple rotor components and age of the rotors. The City has stated that one of the south rotors has been replaced in the past year.



Both effluent weirs are adjustable which allows for adjusting the Dissolved Oxygen input into the basin. Both weirs were operating at the time of visit, though they were reported as difficult to operate and may need further maintenance.

Recommended Improvements:

| Table 11 – Ditch and Rotor Improvements | | | | | |
|---|-------------------|---|--------------------------------------|--------------------------------|--|
| Improvement # | Component | Improvement | Planning Time Frame (years) | Opinion of Probable Cost | |
| 1 | Oxidation Ditches | Replace and upsize Lakeside Rotor complete assembly and install VFDs (Dependent on Alternative Selection for Expansion Plan) | 0-1 | \$750,000 | |

2.3.3. Secondary Clarifiers



The WWTP has two secondary clarifiers. Both clarifiers were constructed in 1986. They have diameters of 55 feet. Once the flow enters the clarifiers, the waste stream's velocity is slowed to allow for settling of the denser solid material. The side water depth for both clarifiers is approximately 12 feet, providing a total volume of 416,000 gallons. The settled activated sludge from the clarifiers is pumped by the Return Activated Sludge (RAS)/Wasted Activated Sludge (WAS) pumping station. The RAS is sent to the front of the oxidations ditches, while the WAS is sent to the sludge holding tanks.





The clarifiers are in fair condition, but the equipment and metal framework is in fair to poor condition. There is a significant buildup of Duckweed on the clarifier surface that is a constant visual and operational concern. This leads to the clogging of the skimmer and restricting the removal of the skimmed floatables from the clarifier adding to an increase in effluent total suspended solids which is a concern for meeting permit limits. Although the clarifiers are operating, there have had electrical and mechanical failures in the past. The south clarifier drive has been rewired with no safeties to prevent further damage from an over-torque condition. Bearings are also in poor condition and reported to be failing. The superstructure metal work, grating and deck plates are rusted and in need of rehabilitation and/or replacement. The scum box is in poor condition and

experiences constant clogging. Since the clarifiers were constructed in the late 1980's, replacement parts are getting harder to find.

It is highly recommended that the clarifiers be drained and inspected. However, due to the configuration of the RAS/WAS station, draining of the clarifiers, unclogging the scum lines, and similar activities is difficult due to the fact the pipe configuration tends to flow from one clarifier to the other and not to the sludge holding tanks as intended. Unclogging the lines will be difficult to accomplish properly. It is also recommended that both the clarifier assemblies be replaced.

Recommended Improvements:

| Table 12 – Clarifier Improvements | | | | | |
|-----------------------------------|-----------|--|--------------------------------------|--------------------------------|--|
| Improvement # | Component | Improvement | Planning Time Frame (years) | Opinion of Probable Cost | |
| 2 | Clarifier | Drain and Inspect Clarifiers, Replace both Clarifier Assemblies | 0-1 | \$400,000 | |





2.3.4. RAS/WAS Pump Station



The RAS/WAS station is used to pump RAS and WAS flows. The RAS/WAS station was installed underground. The resulting design and construction of this process results in difficulties with operating the clarifiers individually with the RAS/WAS and scum flows combined with little or no ability to separate flows between the two clarifiers when needed. The building being below grade level appears to be in relatively good condition although the roof needs attention with the gutter drains being clogged with grass and the roof is flat, leading to ponding of water. The pump access

hatches for pump removal appear to be in poor condition but are watertight currently. The access points have notable

cracking and are a concern for failure. Operators informed that after significant storms/hurricanes, the building has flooded which caused the failure of the pumps and electrical components that are mounted in the room. As a result, it is recommended for the electrical components to be raised above ground to prevent future failures. There are no doors to access the room or protect the interior components from weather impacts. Through coordination with the City, it is also recommended that the RAS/WAS pumps and VFDs be moved above ground and a new RAS/WAS pump station be constructed.



The piping in the room is in fair condition but should be painted and preserved to prevent rust failure if kept in operation. Likewise, the RAS/WAS pumps are in fair to good condition. One pump appears to be new and unpainted at this time. The electrical cabinets in the room appear to be in good condition having been replaced after the flooding event to the building caused the failure of all electrical and pump components in the room.

Recommended Improvements:

| Table 13 – RAS/WAS Improvements | | | | |
|---------------------------------|-------------------------|---|--------------------------------------|--------------------------------|
| Improvement # | Component | Improvement | Planning Time Frame (years) | Opinion of Probable Cost |
| 3 | RAS/WAS Pump Station | Replace RAS/WAS pump station with an above ground pump station and demolish existing structures | 0-5 | \$450,000 |





2.3.5. Disinfection

Chlorine Contact Chambers



Clarifier Effluent flows by gravity from the Clarifier Effluent Weirs to the Chlorine Contact Chamber. The final effluent has a clear appearance and as observed in the effluent TSS results. The Chlorine Contact Chamber is structurally sound with no visual concerns for integrity. The chamber is bare walled and for the preservation of the structure as well as to provide visual observation of potential TSS concerns, painting of the Effluent trough would be beneficial (White or light blue). Some spalling can be seen on the walls where rebar may be close to surface and troweling

was done to protect it but does not appear to indicate a need for concern. Bypass would be required to paint the walls and make the minor repairs/

Disinfection/Chlorination

Disinfection is accomplished injecting liquid sodium hypochlorite before flow enters the disinfection chamber. The hypo injection line is not painted according to proper color conventions. The analyzers and electrical devices that are contained in electrical boxes are in fair to poor condition and should be replaced.

Sodium Hypochlorite Facility



The sodium hypochlorite building is in fair shape. The existing chain fall, and railing system is non-operational and damaged due to vehicle and hurricane impacts. They should be removed.

The chlorine feed room on the south end of the building is similarly in fair to poor condition. The conversion to liquid occurred sometime in the past and the current skid is in poor condition. Numerous leaks and the mis-matched replacement of a failed pump makes feeding limited. At the time of the

evaluation, the mis-matched pump was in service and no mention was made if the other pumps worked. Operators also cannot base the feed rate on a flow signal which may lead to an excessive use of sodium hypochlorite leading to increased cost. It is recommended that skid pump assembly be replaced.





Recommended Improvements:

| | Table 14 – Disinfection Improvements | | | | | |
|------------------|--------------------------------------|---|--------------------------------------|--------------------------------|--|--|
| Improvement # | Component | Improvement | Planning Time Frame (years) | Opinion of Probable Cost | | |
| 4a | Chlorine Contact Chamber | Paint Effluent Trough, Minor Repairs, and Bypass | 0-5 | \$25,000 | | |
| 4b | Disinfection/ Chlorination | Paint Chlorine injection line. | 0-5 | \$1,000 | | |
| 4c | Chlorine Building | Replacement skid pump assembly. Remove chain fall and railing system. | 0-5 | \$44,000 | | |

2.3.6. Plant Non-Potable Water Station



The plant non-potable water station provides reclaimed water for use at hose bibbs and the headworks throughout the plant. This station is in very poor condition and is non-functional. Operators informed us that the PVC piping failed and rather than repair, the system was replumbed to provide plant water from the City's Potable Water supply. The piping looks to have been thin-wall PVC where this should have been Schedule 80 PVC. The use of potable water adds unnecessary cost to the facility operation when on-site reuse is available.

| Table 15 – Plant Water Station Improvements | | | | |
|---|------------------------------------|--|--------------------------------------|--------------------------------|
| Improvement # | Component | Improvement | Planning Time Frame (years) | Opinion of Probable Cost |
| 5 | Plant Non-Potable Water Station | Replace Non-Potable Plant Water Station (pumps, hydro-tank, and above ground piping) | 0-5 | \$75,000 |





2.3.7. Effluent Pump Station



The Effluent Pump Station that discharges effluent to the offsite rapid infiltration basins is in fair condition. The ductile iron piping needs to be painted to protect it. The effluent pump station is only used when discharging to the offsite percolation ponds. The effluent to the offsite percolation ponds is monitored through a flow meter. The effluent can also gravity flow to the onsite percolation ponds. The existing pump station was designed to discharge 1,000 gpm based on the pump's nameplate. With the existing offsite rapid infiltration basins looking to be expanded to

appoximately 1.35 MGD (1.2 MGD Current), it is expected that the pumps will need to be upgraded. This improvement has been included in the expansion alternatives.

| Table 16 – Effluent Pump Station Improvements | | | | | |
|---|--------------------------|-------------------------|--------------------------------------|--------------------------------|--|
| Improvement # | Component | Improvement | Planning Time Frame (years) | Opinion of Probable Cost | |
| 6 | Effluent Pump Station | Paint ductile iron pipe | 0-5 | \$1,000 | |

2.3.8. Biosolids Storage and Aeration

Sludge Holding Tanks



The two sludge holding tanks receive sludge flows from the WAS pumps, Scum drains, sludge bay drains, and septage from the septage receiving station. The digesters have air supply from three small roots type positive displacement blowers. The designed air flow of the blowers appear to meet the mixing standard of 30 CFM /1,000 CF. However, observing the operations has led to the possible conclusion that the aeration system is not functioning as designed for unknown reasons to provide proper treatment to stabilize the contents of the digester tanks because they are

undersized and overloaded. The operator recently replaced a blower and the blowers and piping appear to be in fair to poor condition given the age of the equipment.

The tanks appear to be in fair condition except for the decant piping which have excessive ragging and not operational. The tanks have never been emptied and cleaned of debris. There has been no inspection of the diffused air system which also are constrained by ragging. The digester tanks are undersized considering how much flow is being processed and the amount of septage received. It is recommended that





the tanks be upsized and coated due to potential Hydrogen Sulfide and Septic chemicals that routinely are in the tanks for concrete protection. Based on the Avon Park WWTP Evaluation and Biosolids Plan dated May 2021 by Kimley-Horn, a new 600,000-gallon sludge holding tank with an aeration and decant system was proposed to provide enough capacity to provide volatile solids destruction, which would reduce hauling and save hauling and disposal fees. In addition, this would give the Operator flexibility and allow to waste solids as desired.

| Table 17 – Sludge Holding Tanks Improvements | | | | | |
|--|------------------------|---|--------------------------------------|--------------------------------|--|
| Improvement # | Component | Improvement | Planning Time Frame (years) | Opinion of Probable Cost | |
| 7a | Sludge Holding Tank | Expand Sludge Digestion Capacity, Add Aeration and Decant System | 0-1 | \$1,100,000 | |
| 7b | Sludge Holding Tank | Drain and inspect existing sludge holding tanks, replace aeration and decant system | 0-5 | \$250,000 | |

2.3.9. Dewatering/Sludge Handling



The final stage of biosolids treatment is sludge dewatering. Dewatering removes excess water from the biosolids and reduces the total volume of sludge needing disposal. Digester contents are mixed with polymer and pumped into the screw presses. Excess water is removed and returned to the headworks via a plant drain station. The solids content of the sludge prior to dewatering is approximately 1% (i.e. 10,000 mg/L) and is dewatered to 18% typically before being hauled to the landfill.

The dewatering/sludge handling processing station is in fair condition. The spill containment bench is in fair condition. The spill containment bench contains the dewatering area with a 275-gallon polymer tote leaned over the toe wall into the area

to provide polymer to the process. A small amount of spilled polymer was visible under the tote isolation ball valve. This is a notable slip hazard due to the properties of the polymer. It is recommended the City add an disposable absorbent mats or a spill containment pallet underneath the tote.





The dewatered sludge drops via a screw conveyor over a temporary wall into a three-sided bay to allow access by the operator to mechanically scoop the dewatered sludge and dump into dumpsters to transport to an approved disposal site. The sludge cake bay is sloped away from the open side which allows water to collect in the sludge cake present. Though the dewatering and sludge holding areas are covered, the area is completely open to weather allowing rain and other events to impart moisture back into the cake, which increases the weight (and cost) of disposal when the dumpsters are hauled. There is no floor drain trough that allows moisture to seep to the bottom of the sludge cake pile and flow back into the plant drain station. Essentially, the liquid is contained by the reverse slope of the pad back towards the dewatering equipment.

There are two screw presses that both handle 250 pounds of solids per hour. According to mass balance calculations, it is expected the max solids loading to the dewatering unit is approximately 10,000 lbs/day per day hauled assuming max septage received of 80,000 gpd, no solids reduction in the sludge holding tank, and 2 MGD inflow. This equates to both screw presses running 20 hours in the day at the worst-case scenario. The City could consider another screw press as flows increase to provide redundancy incase a screw press goes down. In the event a screw press goes down, the septage received would have to be reduced. Per conversations with the City, it was decided to add a third screw press when flows increase to provide redundancy and flexibility. This improvement is included in the expansion alternatives.

| Table 18 – Dewatering/Sludge Handling Improvements | | | | | |
|--|-------------------------------|--|--------------------------------------|--------------------------------|--|
| Improvement # | Component | Improvement | Planning Time Frame (years) | Opinion of Probable Cost | |
| 8A | Dewatering/Sludge Handling | Floor Drain w/ Cap and Curbing | 0-5 | \$15,000 | |
| 8B | Dewatering/Sludge Handling | Disposable Absorbent Mats or Spill Containment Pallet | 0-5 | \$1,500 | |
| 8C | Dewatering/Sludge Handling | Roof upgrades | 0-5 | \$75,000 | |



2.3.10. Plant Drain Station

The plant drain station receives flow from the skimmer beaches, RAS/WAS pump station storm drain, screw presses, and the onsite gravity system to pump back into the front of the plant. The plant drain station doesn't run frequently (1.6 hrs/day on average) and appears to have ample capacity as the plant flows increase in the future. The control panel is located too close to the ground and it is recommended to be raised to avoid potential failures and ease operations. With the placement of the gas seal off fittings, it is possible that there is improper connection of the floats which would expose the wiring connects to hydrogen sulfide within the station.

| Table 19 – Plant Drain Station Improvements | | | | | |
|---|---------------------|--|--------------------------------------|--------------------------------|--|
| Improvement # | Component | Improvement | Planning Time Frame (years) | Opinion of Probable Cost | |
| 9 | Plant Drain Station | Elevate control panel and check connection to float. | 0-5 | \$5,000 | |

2.3.11. Septage Receiving

Septage Receiving Station

The septage receiving station receives septage from the local community septic trucks on a per-load basis. The equipment appears to be in poor condition. There are two dumping bays for trucks to offload. Each bay has a screenings station that allows the truck to connect via hose and offload. The equipment for both bays is inoperable meaning no screening or grit removal is taking place. Also, piping that would convey from the equipment is broken and missing. The manual screens in the bay to one side that is supposed to trap large screenings is damaged and the transfer pump basin is filled with screenings trash that must be removed by climbing into the tank and manually removing it leading to safety concerns.

The transfer pumps that transfer the liquid from the station to the sludge holding tanks are in fair to poor condition. Both pumps were operable, and one was recently replaced. The piping has had many breaks and made of PVC pipe rather than ductile iron or schedule 80 PVC. No painting for protection is on any of the piping. Alternatives for the replacement of the septage receiving station is evaluated later in this report.



| | Table 20 – Septage Receiving Station Improvements | | | | |
|------------------|---|------------------------|--------------------------------------|-----------------------------------|--|
| Improvement # | Component | Improvement | Planning Time Frame (years) | Opinion of Probable Cost | |
| 10 | Septage Receiving | Replace current system | 0-1 | See Alternatives Evaluation | |

2.3.12. SCADA System

Operators were able to monitor condition of the plant process via a phone app but cannot do so via the plant's SCADA. Upon further discussion with the City, it was learned that the system was installed, but no control or monitoring functions were connected. An analog indication panel still exists in the lab room that allows the operator to see what equipment is either ON or OFF only. The recommendation is to complete installation of the SCADA system to allow the City to control certain pieces of equipment (i.e. RAS/WAS Pumps, Blowers, Screw Press, etc) and receive notifications if equipment were to go down.

| Table 21 – SCADA System Improvements | | | | | |
|--------------------------------------|------------------|-----------|---|--------------------------------------|--------------------------------|
| | Improvement # | Component | Improvement | Planning Time Frame (years) | Opinion of Probable Cost |
| | 11 | SCADA | SCADA Modifications to allow Control and receive Notifications | 0-5 | \$100,000 |

2.3.13. Emergency Generator

The generator currently at Avon Park is undersized (runs 1 ditch and 1 clarifier) and not able to provide backup power to the whole plant. It is recommended to replace the current generator with a new generator to handle the current and future loads.

| Table 22 – Generator Improvements | | | | |
|-----------------------------------|-----------|-------------------|--------------------------------------|--------------------------------|
| Improvement # | Component | Improvement | Planning Time Frame (years) | Opinion of Probable Cost |
| 12 | Generator | Replace Generator | 0-1 | \$750,000 |



2.3.14. Office Building



The office building at Avon Park is in poor condition. The roof is patched, and leaks and cracks are known. There is no ventilation, and the interior of the building needs a significant upgrade. Through coordination with the city, it is recommended that a new building be constructed with accompanying amenities in addition to new lab equipment.



| | Table 23 – Generator Improvements | | | |
|------------------|-----------------------------------|---|--------------------------------------|--------------------------------|
| Improvement # | Component | Improvement | Planning Time Frame (years) | Opinion of Probable Cost |
| 13 | Office Building | New Office/Storage Building with new Lab equipment | 0-5 | \$850,000 |

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.



2.4. Condition Assessment and Evaluation Summary

Following the assessment of the existing WWTP, the improvements summarized in Table 26 were identified.

| Table 24 - Condition Assessment Summary | | | | |
|---|-----------------------------|-------------------------------|--|--|
| Process | Component | Meets Existing Capacity | Condition | Recommendations |
| Preliminary Treatment | Headworks | Yes | Headworks Screen and Grit System is inoperable and planned for replacement. | Construction of a new Headworks is underway and expected to be completed early 2023. |
| Secondary Treatment | Lakeside Oxidation Ditch | Yes | Process tank is good structural condition. | Minor concrete patch repairs and coatings recommended to extend useful life. |
| Secondary Treatment | Surface Rotors | Yes | Surface Rotors are in fair to poor condition. Two deflector plates were broken. Seal plates on the walls of the basis were failing. Multiple blades on the rotors were missing. Gear boxes and motor drives are in fair condition. | A lack of a cover over the aeration rotors leads to concrete wear of the ditches. It is recommended that a cover is added to the rotors. Replacement of the complete rotor assemblies including seal plates, gear boxes, and motor drives is recommended. |
| Secondary Clarifiers | Clarifiers | Yes | The structure is in fair condition. The equipment and metal framework is in fair to poor condition. Bearings are known to be in poor condition. Platform is in fair to poor condition. | It is recommended that the clarifier assembly be replaced. It is recommended the clarifier's be drained and inspected to see if there are any additional improvements necessary. Replace platform for safety reasons. It is recommended that the clarifiers be refurbished. |



| | | | The station is below ground and prone | It is recommended that a new above ground RAS/WAS |
|--------------|------------------------------------|-----|--|--|
| | RAS/WAS Pump Station | Yes | to flooding and failure. The RAS/WAS | pump station be constructed, and the existing station be |
| | | | pumps are in fair to good condition. | demolished. |
| RAS/WAS | | | The pump access hatches are in poor | |
| | | | condition. The electrical components | |
| | | | are in good condition but are below | |
| | | | ground. Piping was in fair condition. | |
| | Chlorine Contact | Yes | The chlorine contact chambers are in good condition. | The chamber is bare walled, and it is recommended that |
| Disinfection | Chambers | | | the effluent trough to be painted white or blue to help with |
| | | | | Visual observation of 155. |
| | | Yes | The chlorine injection line is in fair | It is recommended that the chlorine injection line should be |
| Disinfection | Chlorine Injection Lines | | condition. The analyzers and electrical | painted to proper color conventions. The analyzers and |
| | | | equipment are in fair to poor | electrical devices contained in electrical boxes should be |
| | | | condition. | replaced. |
| | Sodium Hypochlorite Facility | Yes | The building is in fair condition. The | It is recommended that the skid pump system be replaced. |
| | | | existing chain fall and railing system is | SCADA or probes should be used to control the flow of |
| Disinfection | | | non-operational. The chlorine feed | sodium hypochlorite. The existing chain fall and railing |
| | | | room is in fair to poor condition. The | system snouid be removed. |
| | | | current skid is in poor condition. | It is recommended that the station and system ha |
| Plant Water | Plant Non-Potable Water Station | No | The station is in very poor condition and is non-functional. | It is recommended that the station and system be |
| Station | | | | repaired/replaced to reduce the amount of polable water |
| | | | | useu. |
| | Sludge Holding Tank | No | | The digester tanks are undersized, and it is recommended |
| | | | The tanks appear to be in fair condition. Blowers and piping are in fair to poor condition. The decant system is not operational. | that the tanks be resized to accommodate the current and |
| | | | | future flows. The tanks should be coated to protect the |
| Biosolids | | | | tanks from chemical wear on the concrete. It is also |
| | | | | recommended that the air diffusers be inspected. The tanks |
| | | | | should be emptied and cleaned of debris. It is |
| | | | | recommended that the air piping be replaced. |



| Biosolids | Dewatering/Sludge Holding | Yes | The dewatering/sludge handling processing station is in fair condition. The spill containment bench is in fair condition. | For safety precautions, it is recommended that a spill containment pallet or disposable absorbent material should be put under the tote to prevent pools of spilled chemicals. Modifications to the roof/cover and curbing should be made to prevent rain and run off from getting to the cake. A floor drain should be added to allow water to flow back into the plant drain station or sludge holding tanks. |
|----------------------|------------------------------|-----|--|---|
| Biosolids | Plant Drain Station | Yes | Station appears to be in fair condition. Control panel was located close to ground. | The control panel is located too close to the ground and it is recommended that the control panel is located at a higher elevation. It is also recommended to check on the connection of the floats to prevent the wiring from being exposed to airborne chemicals. |
| Septage Receiving | Septage Receiving Station | Yes | The septage receiving station is in poor condition. Transfer pumps and piping are in fair to poor condition. | It is recommended that one septage receiving station be replaced. The equipment should be upsized to handle the new loads. One of the pumps should be replaced. The piping has many breaks and should be replaced with sch. 80 PVC. See alternative evaluation for more details on septage receiving improvements. |
| SCADA | System | No | The SCADA system is in fair condition | It is recommended that the SCADA system be fully installed in order to allow operators to control additional equipment at the plant instead of just monitoring (i.e. screw press, RAS/WAS, etc) |
| Generator | System | No | The generator is in fair condition | It is recommended that the current generator be replaced with a new generator to provide enough capacity for current and future loads. |
| Office Building | Building | No | The current building and lab equipment is in poor condition | It is recommended that the current building be demolished and replaced with a new office/storage building including new lab equipment. |

Kimley **»Horn**



3. Development and Evaluation of Alternatives

3.1. Introduction

This section of the Facility Plan includes the following:

- Establishing *Alternative* design considerations based on current and projected flows and loads and existing and future regulatory considerations including stringent nutrient discharge requirements.
- Identify applicable treatment technologies and develop technically feasible, cost effective, and reliable *Alternatives* that meet the established design considerations

3.2. Proposed Design Flow and Loading Conditions for Alternatives

The historical flow and loading conditions were previously presented in **Section 1.3** and **Section 1.4**. The following section summarizes the projected influent flow rates and mass loading conditions that were used in developing the **Alternatives**. It should be noted that the projected flow rates and mass loading conditions were based on historical data (**Section 1.3** and **Section 1.4**) and population projections (**Section 1.5**). See **Table 3.1** for a summary of projected wet weather flow and **Table 3.2** for a summary of wet weather peaking factors.

| Table 3.1 Projected Flow Summary | |
|----------------------------------|-------|
| AADF: Annual average daily flow | 2 MGD |
| MMADF: Maximum month daily flow | 2.8 |
| | MGD |
| MDF: Maximum daily flow | 4 MGD |
| PHF: Peak hourly flow (estimate) | 5.00 |
| | MGD |

See Table 3.3 for a summary of projected influent constituent concentration and loading data at MMADF.

Table 3.2 Projected Influent Constituent Concentration and Loading Data

| Influent Constituent Data | Value |
|---------------------------------------|-------|
| $cBOD_5$ – Concentration (mg/L) | 250 |
| cBOD₅ – Loading (lbs/day) | 5,840 |
| TSS – Concentration (mg/L) | 240 |
| TSS – Loading (Ibs/day) | 5,600 |
| Total Nitrogen – Concentration (mg/L) | 65 |
| Total Nitrogen – Loading (Ibs/day) | 1,517 |
| | 48 |



| рН | 7.0 |
|---------------------|-----|
| Temperature (deg C) | 20 |

3.3. Proposed Nitrogen and Phosphorus Removal Criteria for Alternatives

Some amount of nitrogen and phosphorus is removed during secondary treatment (i.e. carbonaceous BOD removal) by way of biomass cell growth and wasting from the process. However, secondary treatment is not generally sufficient to reliably achieve stringent nitrogen or phosphorus effluent requirements. Typically, biological and/or chemical treatment processes are utilized to achieve the level of treatment required for acceptable nutrient reduction. In general, the accepted levels of treatment for Total Nitrogen (TN) and Total Phosphorus (TP) are summarized below.

Nitrogen Removal

Level 1 Nitrogen Limit (6 to 8 mg/l, annual average) - Level 1 nitrogen limits can be achieved biologically through a number of activated sludge or attached growth processes. Supplemental carbon is required for denitrification filtration. These processes typically include:

- Modified Ludzack-Ettinger (MLE)
- Extended Aeration Oxidation Ditches
- Sequencing Batch Reactors (SBR)
- Cyclic Aeration processes
- Moving Bed Biofilm Reactor (MBBR)
- Integrated Fixed Film Activated Sludge (IFAS)
- Membrane Bioreactors (MBR)
- Deep-Bed Denitrification Filtration

Level 2 Nitrogen Limit (Less than 3 mg/l, annual average) - Level 2 nitrogen limits, generally referred to as Advanced Wastewater Treatment (AWT), can be achieved biologically through a number of activated sludge or attached growth processes. The lower end of Level 2 is considered the current limit of technology. Based on the influent wastewater characteristics, supplemental carbon is typically required for the secondary anoxic bioreactors. Supplemental carbon is required for denitrification filtration. The processes typically include:

- 4-Stage Bardenpho (MLE with secondary anoxic and re-aeration zones)
- Deep-Bed Denitrification Filtration

Phosphorus Removal

Alum or ferric chloride addition (metal salt coagulant chemical treatment) and the 5-Stage Bardenpho process (biological treatment) was considered in the *Alternatives* to produce an effluent with a total phosphorous (TP) concentration of less than 1 mg/L.

The 5-Stage Bardenpho process is a biological process to remove both nitrogen and phosphorus. The process consists of an anaerobic zone followed by the 4-stage Bardenpho process (*See Section 3.4.4*). The initial anaerobic zone promotes the release and subsequent uptake of phosphorus by the microorganism population.


Summary of Proposed Design Criteria for TN and TP Removal

The *Alternatives* include Level 1 and Level 2 nitrogen removal capabilities based on current regulatory requirements and to provide the City flexibility in implementing an adaptive nitrogen management approach.

The *Alternatives* considered chemical phosphorus removal capabilities and biological phosphorus removal capabilities (i.e. anaerobic zone or 5-stage Bardenpho).

3.4. Proposed Design Effluent Criteria for Alternatives

Based on the projected influent flow and loading conditions with a permitted treatment capacity of 5.0 MGD AADF, the following are the anticipated effluent requirements:

- cBOD₅ ≤ 5 mg/L
- TSS ≤ 5 mg/L
- Level 2 Total Nitrogen (TN ≤ 3 mg/L) removal capabilities with the operational flexibility to achieve Level 1 Total Nitrogen (TN ≤ 8 mg/L) if warranted
- Total Phosphorus removal capabilities (TP \leq 1 mg/L)
- Basic level disinfection as defined by FAC Chapter 62-600.440(5)
- $pH \ge 6.5$ standard units and ≤ 8.5 standard units



3.5. Development of Alternatives for Evaluation

The alternatives for determining the facility modifications requirements to meet the following are presented in this section:

- Meet more stringent FDEP ground water limits of total nitrogen (TN) and total phosphorous (TP) (i.e., advanced wastewater treatment);
- Provide pretreatment and protection of downstream equipment with a septage receiving station; and
- Expand the Plants Capacity for future growth (i.e., 1.5 MGD to 2.0 MGD);

The alternatives evaluated for increased nutrient removal and additional capacity are:

- Rehab and upgrade existing infrastructure (i.e. rotors and clarifiers) Maintain existing secondary treatment technology by replacing and/or rehabilitating existing equipment. Construct new, free standing post-anoxic tank for denitrification with supplemental carbon addition to meet 3 mg/L TN. Construct new, free standing anaerobic tank for enhanced biological phosphorus removal (EBPR). Construct new tertiary filters and provide metal salt addition for chemical phosphorus removal to meet 1 mg/L TP.
- 2. Conversion to a Membrane Bioreactor (MBR) system Convert existing oxidation ditches to diffused aeration in a plug flow operation. Convert existing secondary clarifiers into membrane bioreactors tanks. Install internal baffle walls inside existing oxidation ditches to create dedicated anaerobic, pre-anoxic, aerobic, post-anoxic, and re-aeration zones. Provide supplemental carbon addition to the Anoxic zone to meet 3 mg/L TN. Include metal salt addition feed system before the membranes for chemical phosphorus removal to meet 1 mg/L TP.
- 3. Retrofit existing infrastructure to utilize a diffused aeration system and mixers -Convert existing oxidation ditches to diffused aeration with mixers to provide horizontal velocity to existing maintain completely stirred tank reactor (CSTR) operation. Construct new, free standing post-anoxic tank for denitrification with supplemental carbon addition to meet 3 mg/L TN. Construct new, free standing anaerobic tank for enhanced biological phosphorus removal (EBPR). Construct new tertiary filters and provide metal salt addition for chemical phosphorus removal to meet 1 mg/L TP.
- 4. Retrofit existing infrastructure to create zones (i.e. anaerobic, aerobic, anoxic) and utilize a diffused aeration system and mixers Convert existing oxidation ditches to diffused aeration in a plug flow operation. Install internal baffle walls inside existing oxidation ditches to create dedicated anaerobic, pre-anoxic, aerobic, post-anoxic, and re-aeration zones. Construct additional tankage as required for expansion to 2 MGD and nutrient removal. Provide supplemental carbon addition to the Anoxic zone to meet 3 mg/L TN. Include metal salt addition feed system before the membranes for chemical phosphorus removal to meet 1 mg/L TP.



The alternatives for septage receiving analysis are:

- 1. Install new rock trap and septage receiving unit
- 2. Install new rock trap and septage receiving unit including grease and grit removal with process controls
- 3. Install new rock trap and septage receiving unit including grit removal and process controls

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Avon Park WWTP Facility Plan City of Avon Park, FL



3.6. Septage Receiving and Pretreatment Alternatives

This section reviews and evaluates various alternatives for modifications to the septage receiving system for the City of Avon park. The below improvements and alternatives were based on receiving septage flow of 80,000 gallons per day Monday through Friday. The City has received upwards of 80,000 gallons of septage in a day, but not on a continuous basis due to the biological treatment and equipment capacity of the plant. For this analysis, three alternatives were considered, and all three alternatives allow for a better process to receive septage and reduce solids, grit, and/or grease in the downstream sludge holding tanks.

- Septage Receiving and Pretreatment Alternative No. 1 Rock trap and septage receiving unit
- <u>Septage Receiving and Pretreatment Alternative No. 2</u> Rock trap and septage receiving unit including grease removal, grit removal, and process controls
- <u>Septage Receiving and Pretreatment Alternative No. 3</u> Rock trap and septage receiving unit including grit removal and process controls

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3.6.1. Septage Receiving and Pretreatment Alternative No. 1

Alternative 1 consists of replacement of the two existing septage receiving unit with a larger septage receiving unit and construction of a rock trap which will remove heavy and large items and rocks from screenings. One existing septage receiving unit could be left for back up in case the new septage receiving unit is down for maintenance. Without the use of a rock trap, stones and rocks will result in the premature wear of the screw mechanism used in screenings compaction and dewatering. A new septage receiving unit will provide adequate screening reducing solids in the process and in the downstream sludge holding tank. A cost estimate is given below for Alternative 1 in Figure 11.

| PRELIMINARY OPINION OF PROBABLE COSTS | | | | | | | | |
|--|---|------------|------------|------------|--|--|--|--|
| ALTERNATIVE 1 SEPTAGE RECEIVING | | | | | | | | |
| ITEM | TEM DESCRIPTION QUANTITY UNIT PRICE | | | | | | | |
| I. MISCELLANE | | | | | | | | |
| 1 | Mobilization/Demobilization | 1 LS | 33,825.00 | 33,825.00 | | | | |
| 2 | Demolition | 1 LS | 30,000.00 | 30,000.00 | | | | |
| 3 | Site Modifications (15%) | 1 LS | 50,737.50 | 50,737.50 | | | | |
| 4 | 4 Electrical and Instrumentation (10%) 1 LS 33,825.00 | | | | | | | |
| | | | SUBTOTAL | \$ 148,388 | | | | |
| II. PROPOSED I | MPROVEMENTS | | | | | | | |
| 5 | Septage Receiving Unit | 1 LS | 327,000.00 | 327,000.00 | | | | |
| 6 | Rock Trap | 1 LS | 11,250.00 | 11,250.00 | | | | |
| | SUBTOTAL | 338,250.00 | | | | | | |
| | SUN | IMARY | | | | | | |
| I. MISCELLANE | OUS | | | \$ 148,388 | | | | |
| II. PROPOSED I | | \$ 338,250 | | | | | | |
| SURVEY, DESIGN | \$ 72,996 | | | | | | | |
| CONTRACT CON | \$ 145,991 | | | | | | | |
| | \$ 705,600 | | | | | | | |
| The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over ompetitive bidding or market conditions. Opinions of probable costs provided herein are b PROJECT TOTAL | | | | | | | | |

Figure 11- Opinion of Probable Cost for Alternative 1

time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.



3.6.2. Septage Receiving and Pretreatment Alternative No. 2

Alternative 2 is like alternative 1, but with some additional components to include grease and grit removal. Septage contains a large amount of grease, which could affect the downstream equipment and process. Typically, septage contains a very large amount of Grit and currently it goes straight to the sludge holding tank and builds up in the bottom, reducing the treatment capacity and solids retention time. Including grease and grit removal will greatly reduce operation and maintenance, improve life expectancy of the downstream equipment, and improve the downstream process and capacity. The process controls would allow the City to meter and monitor the flows coming in. Due to the variability of the septage received, it is essential for the City to monitor and sample the septage coming in to prevent nutrients from overloading the plant or toxic waste from entering the plant through the decant or filtrate. In addition, process controls could help reduce the involvement of the City's operator in overseeing the system. Currently, grease is added through septage and the city does not hear about it until it causes issues downstream. A cost estimate for the alternative is provided below in Figure 12.

| PRELIMINARY OPINION OF PROBABLE COSTS AVON PARK MODIFICATIONS ALTERNATIVE 2 SEPTAGE RECEIVING | | | | | | | |
|---|--------------------------------------|---------------------|----|------------|------------|--|--|
| ITEM | DESCRIPTION | QUANTITY UNIT PRICE | | | AMOUNT | | |
| I. MISCELLANE | OUS | - | | | | | |
| 1 | Mobilization/Demobilization | 1 | LS | 65,045.00 | 65,045.00 | | |
| 2 | Demolition | 1 | LS | 30,000.00 | 30,000.00 | | |
| 3 | Site Modifications (15%) | 1 | LS | 97,567.50 | 97,567.50 | | |
| 4 | Electrical and Instrumentation (10%) | 1 | LS | 65,045.00 | 65,045.00 | | |
| | \$ 257,658 | | | | | | |
| II. PROPOSED IN | MPROVEMENTS | | | | | | |
| 5 | Septage Receiving Unit | 1 | LS | 327,000.00 | 327,000.00 | | |
| 6 | Rock Trap | 1 | LS | 11,250.00 | 11,250.00 | | |
| 7 | Grease and Grit Removal System | 1 | LS | 262,200.00 | 262,200.00 | | |
| 8 | Flow Meter and Process Controls | 1 | LS | 50,000.00 | 50,000.00 | | |
| | | | | SUBTOTAL | 650,450.00 | | |
| | SUM | IMARY | | | | | |
| I. MISCELLANE | | \$ 257,658 | | | | | |
| II. PROPOSED IN | \$ 650,450 | | | | | | |
| SURVEY, DESIGN | \$ 136,216 | | | | | | |
| CONTRACT CON | \$ 272,432 | | | | | | |
| | \$ 1,316,800 | | | | | | |
| The Engineer has no c competitive bidding of time and represent on | ermining prices or over | | | | | | |

Figure 12- Opinion of Probable Cost For Alternative 2

does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

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3.6.3. Septage Receiving and Pretreatment Alternative No. 3

Alternative 3 is like alternative 2, but without the grease removal. Most septage receiving system units do not include grease removal, so the replacement options would be more limited, and grease has a smaller effect on the system then grit. The City could also limit how much grease they could receive through the monitoring. However, control of grease is difficult due to there being no way to know or see if there is grease in the trucks. A cost estimate is given below in **Figure 13**.

| | PRELIMINARY OPINIO AVON PARK M ALTERNATIVE 3 S | N OF PRO 10DIFICA EPTAGE R | BABLE C TIONS ECEIVIN | COSTS NG | |
|--|--|---|---|---|---|
| ITEM | DESCRIPTION | QUANTITY UNIT PRICE | | | AMOUNT |
| I. MISCELLANE | OUS | | | • | |
| 1 | Mobilization/Demobilization | 1 | LS | 56,075.00 | 56,075.00 |
| 2 | Demolition | 1 | LS | 30,000.00 | 30,000.00 |
| 3 | Site Modifications (15%) | 1 | LS | 84,112.50 | 84,112.50 |
| 4 | Electrical and Instrumentation (10%) | 1 | LS | 56,075.00 | 56,075.00 |
| | SUBTOTAL | \$ 226,263 | | | |
| II. PROPOSED I | MPROVEMENTS | | | | |
| 5 | Septage Receiving Unit | 1 | LS | 327,000.00 | 327,000.00 |
| 6 | Rock Trap | 1 | LS | 11,250.00 | 11,250.00 |
| 7 | Grit Removal System | 1 | LS | 172,500.00 | 172,500.00 |
| 8 | Flow Meter and Process Controls | 1 | LS | 50,000.00 | 50,000.00 |
| | | | | SUBTOTAL | 560,750.00 |
| | SUM | MARY | | | |
| I. MISCELLANE | OUS | | | | \$ 226,263 |
| II. PROPOSED I | MPROVEMENTS | | | | \$ 560,750 |
| SURVEY, DESIGN | | \$ 118,052 | | | |
| CONTRACT CON | \$ 236,104 | | | | |
| | \$ 1,141,200 | | | | |
| The Engineer has no c competitive bidding o time and represent on does not guarantee th | control over the cost of labor, materials, equipm r market conditions. Opinions of probable cost ly the Engineer's judgment as a design professi nat proposals, hids, or actual construction cost | nent, or over t ts provided he onal familiar s will not vary | he Contract rein are ba with the co | tor's methods of deter sPROJECT TOTAL nstruction industry. T inions of probable cu | rmining prices or over The Engineer cannot and osts |

Figure 13- Opinion of Probable Cost for Alternative 3



3.7. Nutrient Removal and Capacity Expansion Alternatives

This section reviews and evaluates various alternatives for expanding the City of Avon Park WWTP to 2.0 MGD and meeting the new FDEP ground water Total Nitrogen (TN) and Total Phosphorous (TP) limits. The alternatives consider utilizing the existing site to accommodate the required expansions to meet the projected flows and permit regulations. For this analysis, multiple treatment options, site layouts, and sizing configurations were considered. All three alternatives were assumed to be capable of meeting Advanced Wastewater Treatment (AWT) effluent parameters for $cBOD_{5}$, TSS, TN, and TP of 5 mg/L, 5 mg/L, 3 mg/L, and 1 mg/L respectfully. The following is a detailed discussion of each alternative.

The four wastewater treatment process alternatives that were selected for a more detailed analysis, are listed below:

- Nutrient Removal and Capacity Expansion Alternative No. 1
 - Rehab and upgrade existing infrastructure (i.e. rotors and clarifiers)
- Nutrient Removal and Capacity Expansion Alternative No. 2
 - Conversion to a Membrane Bioreactor (MBR) system
- Nutrient Removal and Capacity Expansion Alternative No. 3
 - Retrofit existing infrastructure to utilize a diffused aeration system and mixers
- Nutrient Removal and Capacity Expansion Alternative No. 4
 - Retrofit existing infrastructure to create zones (i.e. anaerobic, aerobic, anoxic) and utilize a diffused aeration system and mixers

3.7.1. Alternative Phasing Approach

The detailed analysis included a phased evaluation since the City is expected to be required to meet the new FDEP Total Nitrogen and Phosphorous ground water limits of 3 mg/L and 1 mg/L (Phase 1) at the RIB zone of discharge.

It is noted that the Total Nitrogen and Phosphorous effluent design criteria could change pending the results of an Engineer or Geologist evaluation that is required to be provided to FDEP this year. As the flows increase at the plant and near exceeding the treatment capacity 1.5 MGD, the plant can be expanded to 2.0 MGD as desired by the City (**Phase 2**).

Phase 1 and Phase 2 Design Criteria Summary

| Design Flow: | Phase 1: 0.84 MGD AADF (Current Flows) |
|------------------|---|
| | Phase 2: 2.0 MGD AADF |
| Influent: | 240 mg/L BOD, 250 mg/L TSS, 65 mg/L TN, 7 mg/L TP |
| Effluent Limits: | 5 mg/L BOD, 5 mg/L TSS, 3 mg/L TN, 1 mg/L TP |
| | |



3.7.2. Nutrient Removal and Capacity Expansion Alternative No. 1

Alternative 1 consists of the rehabilitation and upgrade of the existing infrastructure and construction of an anaerobic tank for biological phosphorus removal, post anoxic tank for nitrogen removal, and cloth media filters to increase the facility's capacity to 2.0 MGD AADF and meet the AWT nutrient limits. The basis of Alternative 1 is to make best use of the existing facility infrastructure, maintain the current process operations, and minimize downtime to construct the improvements. Alternative 1 would rehabilitate and reuse as much equipment as possible. Alternative 1 would be designed and constructed in two phases to meet the projected future flows along with meeting FDEP permit regulations. The following is a description of each phase.

Phase 1

Phase 1 (Nutrient Removal) consists of the replacement and upgrade of the four (4) existing 25 HP rotors. The complete rotor assembly and clarifier drive/gear box assemblies mentioned in the facility condition assessment will be replaced due to the poor condition and future process requirements. The existing treatment process will be converted to a 5-stage Bardenpho process with the following improvements:

- Cast-in-place concrete anaerobic tank will be constructed to reduce phosphorous biologically (EBPR).
- Existing aeration system will be optimized to provide internal anoxic zones within the existing oxidation ditches (i.e., simultaneous nitrification/denitrification).
- Cast-in-place concrete post anoxic tank will be constructed to further reduce nitrogen biologically (denitrification) to less than 3.0 mg/L.
- Cast-in-place concrete re-aeration tank will be constructed to aerate the denitrified mixed liquor to prevent rising sludge from nitrogen gas discharges in the secondary clarifiers (i.e., sludge 'pop-ups' or clumping).
- Provisions for supplemental chemical addition (supplemental carbon for the denitrifying organisms and metal salts [e.g., ferric chloride] for chemical phosphorous removal.

Additional sludge holding tank(s) and sludge aeration systems will be constructed to provide the Operator with operational flexibility and redundancy. Installation of Supervisory Control and Data Acquisition (SCADA) and the associated treatment process control system will help operators monitor and control the nutrient removal and aeration system process. The addition of tertiary filters improves treated wastewater quality and provides additional removal of solids to consistently achieve total phosphorous concentrations below 1.0 mg/L. The RAS/WAS pump station will be replaced as mentioned in the condition assessment section to be above ground and to meet return and wasting requirements of the future expansion.





Phase 2

Phase 2 (Capacity expansion to 2.0 MGD) will consist aeration upgrades in the existing ditches with additional rotors to meet the increased oxygen demand from the capacity expansion. Additional chlorine contact chambers will be constructed to disinfect the increased flows to meet the 15-minute (minimum) contact time. The rapid infiltration basins (RIBs) will be expanded from 1.85 MGD to 2.0 MGD. A new screw press will be installed to dewater the additional solids from the expansion. The effluent pumps will also be upsized to increase pumping capacity.

With the construction outlined above, cost estimates have been derived for this expansion of the plant. These costs are presented in **Appendix B** and summarized in the economic evaluation of alternatives section.

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City of Avon Park, FL



Figure 14- Alternative 1 Concept Plan





| Summary of propo | osed treatment pl | lant improvements | includes the following: |
|------------------|-------------------|-------------------|-------------------------|
|------------------|-------------------|-------------------|-------------------------|

| | Phase 1 | | Phase 2 |
|---|--|---|---|
| • | SCADA/Process Control System | • | RIB Expansion |
| • | Replacement and upgrade of Rotors | • | Aeration upgrades to the existing ditches |
| • | Tertiary Filters | • | Upsize of Chlorine Contact Chamber |
| • | Chemical Addition | • | Additional Dewatering Screw Press |
| • | Anaerobic and Post Anoxic Tank w/ Re- Aeration Zone | • | Effluent Pump Upgrades |
| • | Additional Sludge Holding Tank(s) and Aeration System | | |
| • | RAS/WAS Pump Station Modifications | | |

Advantages

- Process Familiarity: The alternative is a similar process as the existing and would require minimal operator training and adjustment to the process.
- Downtime for Phase 1 and 2 Improvements
- Lowest capital cost for 2 MGD expansion

Disadvantages

- Horizontal aerators generate splash and spray. <u>Note:</u> This can be mitigated with covers.
- Additional tankage added: Anaerobic, post anoxic, and re-aeration tank required
- Below grade yard piping modifications/conflicts
- Process control flexibility with horizontal aerators. **Note:** Variable speed drives, sequential [on/off] aeration, and aeration control strategies (i.e., DO control, ABAC, etc) provide increased process control but still less than a tapered, full floor grid, fine bubble membrane diffuser aeration system with similar aeration control strategies. The goal of process control is reduced aeration energy and supplemental carbon costs.
- Requires largest footprint for future expansion beyond 2.0 MGD.
- High capital cost for future expansion beyond 2 MGD.



3.7.3. Nutrient Removal and Capacity Expansion Alternative No. 2

The basis of **Alternative 2** is to utilize existing infrastructure while also moving to more advanced technology. The treatment will include the conversion of existing facilities to a membrane bioreactor (MBR) process. This will replace the existing clarifiers and prevent the need for additional tertiary filtration. **Alternative 2** converts the current 'closed loop reactor' orientation of the oxidation ditches into a 'plug flow' orientation with dedicated anaerobic, pre-anoxic, aeration, and post-anoxic. In addition, the MBR process uses membrane filtration as the liquid/solid separation process instead of settling in clarifiers. This allows more biomass to develop in the existing tankage from the higher mixed liquor suspended solids (MLSS) concentrations in the treatment process. This in turn enables the existing infrastructure to be sufficient for capacity expansion to 2.0 MGD. **Alternative 2** would be designed and constructed in two phases to meet the projected future flows and FDEP permit regulations. The following is a description of each phase.

Phase 1

Phase 1 (Nutrient Removal) consists of converting the existing 'closed loop reactor' oxidation ditch into a 5-stage Bardenpho plug flow treatment process with the following improvements:

- Construct new fine screening and grit removal headworks as required for an MBR application. The new fine screening/grit removal headworks would be constructed downstream of the existing coarse screening headworks.
- Remove existing horizontal rotors and install horizontal mixers with a floor mounted, tapered full floor grid, fine bubble membrane diffused aeration system.
- Install aeration blowers, controls, instrumentation, electrical, and associated appurtenances.
- Install internal, non-hydrostatic, baffle walls to create dedicated anaerobic, pre-anoxic, tapered diffused aeration, post-anoxic zones within each oxidation ditch.
- Install wall pumps and piping for internal recycles from the end of the aeration zone (i.e., nitrate recycle) to the start of the pre-anoxic zone.
- Remove existing one (1) clarifier mechanism and install membrane filtration system into the one (1) clarifier (i.e., MBR conversion). **Note:** the second clarifier provides additional capacity (2.0 MGD) but is not required for Phase 1 Nutrient removal requirements.
- Install air scour blowers and permeate pumps, controls, instrumentation, electrical, and associated appurtenances.
- Install new RAS/WAS pump station and remove then existing RAS/WAS pump station.
- Provisions for supplemental chemical addition (supplemental carbon for the denitrifying organisms and metal salts [e.g., ferric chloride] for chemical phosphorous removal.

Each oxidation ditch can be isolated and converted individually to reduce maintenance of plant operations. Additional sludge holding tank(s) and sludge aeration systems will be constructed to provide the Operator with operational flexibility and redundancy. Installation of Supervisory Control and Data Acquisition (SCADA) and the associated treatment process control system will help operators monitor and control the nutrient removal and aeration system process. The membrane filters (i.e., MBR) provides additional removal of solids to consistently achieve total phosphorous concentrations below 1.0 mg/L.



Phase 2

Phase 2 (Capacity expansion to 2.0 MGD) will consist of removing the second clarifier mechanism and install the second MBR system (membrane filters, air scour blowers, and permeate pumps).

Additional chlorine contact chambers will be constructed to disinfect the increased flows to meet the 15-minute (minimum) contact time. The rapid infiltration basins (RIBs) will be expanded from 1.85 MGD to 2.0 MGD. A new screw press will be installed to dewater the additional solids from the expansion. The effluent pumps will also be upsized to increase pumping capacity.

With the construction outlined above, cost estimates have been derived for this expansion of the plant. These costs are presented in **Appendix B** and summarized in the economic evaluation of alternatives section.

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Figure 15- Alternative 2 Concept Plan







| | Phase 1 | | Phase 2 |
|---|---|---|------------------------------------|
| ٠ | SCADA/Process Control System | • | RIB Expansion |
| • | Conversion of the existing clarifiers to membranes | • | Upsize of Chlorine Contact Chamber |
| • | Membrane Bioreactor System (including internal | • | Dewatering Screw Press |
| | recycle) | • | Effluent Pump Upgrades |
| • | Chemical Addition | | |
| • | Modification to the Ditches and Aeration System | | |
| • | Additional Fine Screening | | |
| • | Additional Sludge Holding Tank(s) and Aeration System | | |
| • | RAS/WAS Pump Station Modifications | | |

Summary of proposed treatment plant improvements includes the following:

Advantages

- Least Tankage Improvements: The MBR system does not require new construction of additional aeration basins, post anoxic tanks, anaerobic tanks, clarifiers, or filters.
- Ease of Construction and Minimal Pipe Modifications: Mostly above grade piping with the addition of membrane filters to the existing clarifiers and fine screening.
- Smallest footprint for future expansion beyond 2.0 MGD. Able to use existing ditch when expanding up to 3.6 MGD or more.
- Best Effluent Quality of all Alternatives.
- Lowest Capital Cost when expanding beyond 2 MGD. (No additional clarifier, filters, or tankage would be required until after 3.6 MGD or more).

<u>Disadvantages</u>

- New Treatment Process: Operators will have to learn about this process and how to deal with maintenance
- Longest downtime of existing ditch and clarifier.
- Highest Operation and Maintenance costs: MBR systems continuously or periodically air scour the membranes directly attributing to potentially higher operation costs compared to other technologies. Additionally, for planning purposes, membranes are assumed to be removed, washed down, and re-installed once a year (labor cost) and replaced every 10 to 13 years (overall life cycle costs).
- Highest Phase 1 Capital Costs



3.7.4. Nutrient Removal and Capacity Expansion Alternative No. 3

Alternative 3 retrofits the existing oxidation ditches with diffused aeration and mixers in lieu of the surface rotors in Alternative 1. Then, the additional improvements are very similar to Alternative 1, in that construction of a pre-anaerobic tank, post anoxic tank, and tertiary filters are necessary to meet the nutrient removal design criteria and capacity expansion to 2 MGD. The existing horizontal rotors would be replaced with floor mounted, grid, tapered, fine bubble membrane diffused aeration system coupled with rail mounted, horizontal mixers. Alternative 3 would be designed and constructed in two phases to meet the projected future flows along with meeting FDEP permit regulations. The following is a description of each phase.

Phase 1

Phase 1 (Nutrient Removal) consists of converting the existing 'closed loop reactor' oxidation ditch into an aeration zone with the following improvements:

- Cast-in-place concrete anaerobic tank will be constructed to reduce phosphorous biologically (EBPR).
- Cast-in-place concrete post anoxic tank will be constructed to further reduce nitrogen biologically (denitrification) to less than 3.0 mg/L.
- Cast-in-place concrete re-aeration tank will be constructed to aerate the denitrified mixed liquor to prevent rising sludge from nitrogen gas discharges in the secondary clarifiers (i.e., sludge 'pop-ups' or clumping).
- Remove existing horizontal rotors and install horizontal mixers with a floor mounted, tapered full floor grid, fine bubble membrane diffused aeration system.
- Install aeration blowers, controls, instrumentation, electrical, and associated appurtenances.
- Provisions for supplemental chemical addition (supplemental carbon for the denitrifying organisms and metal salts [e.g., ferric chloride] for chemical phosphorous removal.

Additional sludge holding tank(s) and sludge aeration systems will be constructed to provide the Operator with operational flexibility and redundancy. Installation of Supervisory Control and Data Acquisition (SCADA) and the associated treatment process control system will help operators monitor and control the nutrient removal and aeration system process. The addition of tertiary filters improves treated wastewater quality and provides additional removal of solids to consistently achieve total phosphorous concentrations below 1.0 mg/L. The RAS/WAS pump station will be replaced as mentioned in the condition assessment section to be above ground and to meet return and wasting requirements of the future expansion.



Phase 2

Phase 2 (Capacity expansion to 2.0 MGD) will consist of aeration upgrades in the existing ditches to meet the increased oxygen demand from the capacity expansion. Additional chlorine contact chambers will be constructed to disinfect the increased flows to meet the 15-minute (minimum) contact time. The rapid infiltration basins (RIBs) will be expanded from 1.85 MGD to 2.0 MGD. A new screw press will be installed to dewater the additional solids from the expansion. The effluent pumps will also be upsized to increase pumping capacity.

With the construction outlined above, cost estimates have been derived for this expansion of the plant. These costs are presented in **Appendix B** and summarized in the economic evaluation of alternatives section.

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Figure 16- Alternative 3 Concept Plan







Summary of proposed treatment plant improvements includes the following:

| | Phase 1 | | Phase 2 |
|---|---|---|------------------------------------|
| ٠ | SCADA/Process Control System | • | RIB Expansion |
| • | Replacement of Rotors with Diffused Aeration System | • | Upsize of Chlorine Contact Chamber |
| • | Mixers in Ditches | • | Screw Press |
| • | Tertiary Filters | • | Effluent Pump Upgrades |
| • | Chemical Addition | | |
| • | Pre-Anaerobic and Post Anoxic Tank with Re-Aeration | | |
| | Zone | | |
| • | Additional Sludge Holding Tank(s) and Aeration System | | |
| • | RAS/WAS Pump Station Modifications | | |

Advantages

• Process Familiarity: The alternative maintains secondary clarifier as liquid/solids separation process.

Disadvantages

- Additional tankage added: Anaerobic, post anoxic, and re-aeration tank required
- Below grade yard piping modifications/conflicts
- Requires large footprint for future expansion beyond 2.0 MGD.



3.7.5. Nutrient Removal and Capacity Expansion Alternative No. 4

Alternative 4 converts the current 'closed loop reactor' orientation of the oxidation ditches into a 'plug flow' orientation with dedicated anaerobic, pre-anoxic, aeration, and post-anoxic. As the flows increase, new tankage would be added (as required) to provide additional volume (i.e., allow more biomass to develop) to meet capacity expansion requirements to 2.0 MGD. Alternative 4 would be designed and constructed in two phases to meet the projected future flows and FDEP permit regulations. The following is a description of each phase.

Phase 1

Phase 1 (Nutrient Removal) consists of converting the existing 'closed loop reactor' oxidation ditch into a 5-stage Bardenpho plug flow treatment process with the following improvements:

- Remove existing horizontal rotors and install horizontal mixers with a floor mounted, tapered full floor grid, fine bubble membrane diffused aeration system.
- Install aeration blowers, controls, instrumentation, electrical, and associated appurtenances.
- Install internal, non-hydrostatic, baffle walls to create dedicated anaerobic, pre-anoxic, tapered diffused aeration, post-anoxic zones within each oxidation ditch.
- Install wall pumps and piping for internal recycles from the end of the aeration zone (i.e., nitrate recycle) to the start of the pre-anoxic zone.
- Provisions for supplemental chemical addition (supplemental carbon for the denitrifying organisms and metal salts [e.g., ferric chloride] for chemical phosphorous removal.

Each oxidation ditch can be isolated and converted individually to reduce maintenance of plant operations. Additional sludge holding tank(s) and sludge aeration systems will be constructed to provide the Operator with operational flexibility and redundancy. Installation of Supervisory Control and Data Acquisition (SCADA) and the associated treatment process control system will help operators monitor and control the nutrient removal and aeration system process. The addition of tertiary filters improves treated wastewater quality and provides additional removal of solids to consistently achieve total phosphorous concentrations below 1.0 mg/L. The RAS/WAS pump station will be replaced as mentioned in the condition assessment section to be above ground and to meet return and wasting requirements of the future expansion.





Phase 2

Phase 2 (Capacity expansion to 2.0 MGD) will consist of adding additional tankage and mixers (as required). Additional chlorine contact chambers will be constructed to disinfect the increased flows to meet the 15-minute (minimum) contact time. The rapid infiltration basins (RIBs) will be expanded from 1.85 MGD to 2.0 MGD. A new screw press will be installed to dewater the additional solids from the expansion. The effluent pumps will also be upsized to increase pumping capacity.

With the construction outlined above, cost estimates have been derived for this expansion of the plant. These costs are presented in **Appendix B** and summarized in the economic evaluation of alternatives section.

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Figure 17- Alternative 4 Concept Plan







Summary of proposed treatment plant improvements includes the following:

| | Phase 1 | | Phase 2 |
|---|---|---|---|
| • | SCADA/Process Control System | • | RIB Expansion |
| • | Chemical Addition | • | Upsize of Chlorine Contact Chamber |
| • | Modification to the Ditches and Aeration System | • | WAS/RAS Pump Upgrades |
| • | Additional Sludge Holding Tank(s) and Aeration System | • | Effluent Pump Upgrades |
| • | Tertiary Filters | • | Dewatering Screw Press |
| | | • | Adding Tankage and Mixers (As Required) |

Advantages

- No Tankage Improvements for Phase 1: The Phase 1 upgrades do not require new construction of additional aeration basins, post anoxic tanks, and anaerobic tanks.
- Smaller footprint and less piping conflicts compared to Alternatives 1 and 2
- Provides flexibility: Pre-Anoxic/Anaerobic baffle wall locations can be adjusted to optimize EBPR and denitrification process.
- Process Familiarity: The alternative maintains secondary clarifier as liquid/solids separation process.

<u>Disadvantages</u>

• Requires Ditches to be taken out of service for installation of diffused aeration and baffle walls/curtains



3.8. Evaluation of Alternatives

The following sections describe the economic and non-economic evaluation criteria that were used for the Alternative evaluation. The following seven categories are used for the *Nutrient Removal and Capacity Expansion Alternatives (Alternatives)*.

Evaluation Criteria:

- Regulatory Compliance
- Constructability
- Operations/Technology
- Risk (changes in future regulations, public perception or land use)
- Compatibility with Site
- Community/Environmental
- Economic

3.8.1. Evaluation Process

The *Alternatives* were evaluated through an interactive process involving both the City and the Kimley-Horn project team. In order to determine which *Alternative* represents the best value, both economic and non-economic factors were considered since the lowest cost alternative might not be the "best value" when factoring in non-economic considerations.

The non-economic evaluation primarily considered the regulatory drivers, constructability, operation and maintenance, and potential changes in regulations. The economic evaluation methodology focused on the financial impacts including capital costs, operations costs, and a comparative Net Present Value (NPV).

3.8.2. Evaluation Methodology

A weighting and scoring method were used in the evaluation to screen the *Alternatives*. The weighting and scoring method include the following procedures:

- Select non-economic evaluation criteria representing important benefits or attributes of an alternative that are independent, provide differentiation, and can be objectively assessed.
- Select economic evaluation criteria representing construction costs, operational costs, and 20-year Net Present Value (NPV)
- Weight each criterion to prioritize the importance of the benefit or attribute to the *Alternative* selection process
- Score each *Alternative* with respect to each evaluation criterion
- Recommend an *Alternative* based on the evaluation results

Multiple weighting factors were used to assess the importance of each evaluation category to the *Alternative* selection. The weighting factors ultimately used a relative scale of 1 to 5, with 5 being the highest and 1 the lowest.

Then, each *Alternative* was scored on a relative scale of 1 to 10, with 10 being the highest and 1 the lowest, for each evaluation criterion. The score is then multiplied by the weighting factor of that evaluation criterion. The total economic score is the sum of the economic evaluation criteria and the total non-economic score is the sum of the non-economic evaluation criteria.



For the combined economic and non-economic evaluation, the total economic score was multiplied by a weighting factor to determine a weighted economic ranking. The same procedure was performed to determine a weighted non-economic ranking. The total weighted score is the sum of the weighted economic and non-economic ranking.

An economic sensitivity analysis using four different combined economic and non-economic scenarios was performed. The four different combined economic and non-economic scenarios are as follows:

- 40 percent weighting for economic and 60 percent weighting for non-economic criteria
- 50 percent weighting for economic and 50 percent weighting for non-economic criteria
- 60 percent weighting for economic and 40 percent weighting for non-economic criteria
- 70 percent weighting for economic and 30 percent weighting for non-economic criteria

See *Table 25* for the results of the economic and non-economic evaluation.

3.8.3. Economic Analysis for Alternatives

The economic analysis of the alternatives includes the development of total present worth costs based on construction and annual operation (O&M) costs. The cost figures developed facilitate the direct comparison between alternatives.

The cost estimates are based on the conceptual design of each alternative to determine the process structures, equipment, land area, and process building requirements. Capital construction and annual O&M costs of similar facilities constructed were considered in the cost analysis as well as information provided by manufacturers of the various processes. An additional 30% is added to the construction cost of each alternative for contingencies, engineering design, and construction management. A contingency is appropriate at a planning level to allow for unforeseen and undefined cost items. It is important to note that the cost estimates are preliminary planning-level costs based on information available at the time of the estimates and are considered to be "order of magnitude" suitable for comparative analysis. The actual cost of the recommended alternative will depend on actual labor and material costs, competitive market conditions, final project scope, implementation schedule, and other factors. As a result, the final costs will most likely vary from the estimates presented herein.

3.8.4. Economic Evaluation – Net Present Worth Analysis

The purpose of the Net Present Worth analysis is to determine a baseline value for process and equipment for comparison with the expansion alternatives. The 20-year net present worth (NPW) was calculated for each of the alternatives. The NPW is the sum of capital costs plus the uniform series present worth factor (USPWF) multiplied by the annual operation and maintenance (O&M) costs. As this planning document considers a project planning period of 20 years, it is necessary to incorporate replacement costs (R) of equipment with a life expectancy less than 20 years into the NPW calculation as follows:

Equation No.1: $NPW = Project Cost + (USPWF \times Annual O&M) + R$

Total project costs include the estimated capital costs of the proposed improvements and the engineering design costs. Total O&M costs were determined by estimating power costs. This procedure does not include all of the O&M costs for the planning period but used the O&M costs that were considered significantly different between alternatives. The NPW analysis excluded labor costs deemed to be the same for all alternatives. It is noted that there are minor differences in operational costs for mechanical aeration systems



and diffused aeration systems. However, for cost comparative purposes, it was assumed that the operational costs were the same for both systems (i.e., Alternative No. 1, No. 3, and No. 4). The replacement cost (R) was only determined for equipment different amongst the alternatives that are expected to be replaced in the next 20 years (i.e. membranes and filters).

The USPWF, used to convert the annual O&M costs to present day dollars is a function of the discount rate and number of years in the planning period, was calculated using **Equation No. 2** below. This analysis considered a planning period (n) of 20 years. The discount rate (i) used for this analysis was 2.0%.

Equation No.2: USPWF =
$$\frac{(1+i)^n - 1}{i \times (1+i)^n}$$

The Net Present Worth (NPW) of the existing system were evaluated at 20 years to develop a baseline value to compare to the alternatives. The NPW analysis was performed for Alternatives 1,2, and 3. The O&M and replacement costs were combined, and **Equation No. 1** was used to calculate the total NPW for the existing system. The following assumptions were used to calculate the total O&M costs:

Energy Cost (\$/kWh) = \$0.08

 Table 27 below shows the net present worth of improvements for each of the alternatives for 2 MGD expansion.

| Table 3– City of Avon Park WWTP Alternative NPW Evaluation | | | | | | | | |
|--|--------------|--------------|--------------|--------------|--|--|--|--|
| Scenario | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 | | | | |
| Total O&M Costs | \$70,400 | \$94,700 | \$70,400 | \$70,400 | | | | |
| Total Project Costs | \$13,130,200 | \$15,003,600 | \$14,304,700 | \$14,061,400 | | | | |
| Total Replacement Costs | \$140,000 | \$600,000 | \$140,000 | \$140,000 | | | | |
| Total Net Present Worth of O&M | \$1,151,141 | \$1,548,480 | \$1,151,141 | \$1,151,141 | | | | |
| Total Net Present Worth of Improvements | \$14,421,300 | \$17,152,080 | \$15,595,840 | \$15,353,540 | | | | |



Table 25 – Economic and Non-economic Evaluation Summary Table.

| Criteria | <u>Weight</u> (1-5) | <u>Score (1 - 10):</u> Alternative No. 1 (Ditch/Rotors) | <u>Weighted Score:</u> Alternative No. 1 (Ditch/Rotors) | <u>Score (1 - 10):</u> Alternative No. 2 (MBR) | <u>Weighted Score:</u> Alternative No. 2 (MBR) | <u>Score (1 - 10):</u> Alternative No. 3 (Ditch/Diffused Air) | Weighted Score: Alternative No. 3 (Ditch/Diffused Air) | <u>Score (1 - 10):</u> Alternative No. 4 (Plug FLow/Diffused Air) | Weighted Score: Alternative No. 4 (Plug Flow/Diffused Air) |
|--|------------------------|---|---|--|--|---|--|--|--|
| Regulatory | | | · | | | | | | |
| Meets current FDEP requirements | 5 | 10 | 50 | 10 | 50 | 10 | 50 | 10 | 50 |
| Flexible – Allows for potential future FDEP requirements | 3 | 6 | 18 | 8 | 24 | 6 | 18 | 6 | 18 |
| Meets current and anticipated biosolids regulations | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | We | eighted Score Subtotal | 75 | | 81 | | 75 | | 75 |
| Constructability | | | | | | | | | |
| Ability to logically phase expansion | 5 | 4 | 20 | 7 | 35 | 4 | 20 | 5 | 25 |
| Ease of construction | 4 | 6 | 24 | 6 | 24 | 5 | 20 | 6 | 24 |
| Ability to maintain utility operations during construction | 5 | 8 | 40 | 7 | 35 | 6 | 30 | 6 | 30 |
| | We | eighted Score Subtotal | 84 | | 94 | | 70 | | 79 |
| Operations/Technology | | | | | | | | | 1 |
| Proven performance/proven treatment process | 5 | 8 | 40 | 7 | 35 | 8 | 40 | 8 | 40 |
| Low complexity | 5 | 7 | 35 | 6 | 30 | 7 | 35 | 6 | 30 |
| Operational ease | 5 | 8 | 40 | 6 | 30 | 7 | 35 | 7 | 35 |
| Ease of automation | 5 | 5 | 25 | 7 | 35 | 5 | 25 | 6 | 30 |
| Reasonable maintenance | 5 | 7 | 35 | 6 | 30 | 7 | 35 | 7 | 35 |
| Reliability | 5 | 7 | 35 | 7 | 35 | 7 | 35 | 7 | 35 |
| Longevity | 5 | 8 | 40 | 7 | 35 | 8 | 40 | 8 | 40 |
| Flexible – allows for future growth/regulations | 5 | 4 | 20 | 7 | 35 | 5 | 25 | 6 | 30 |
| Compatible with existing facilities | 5 | 7 | 35 | 7 | 35 | 6 | 30 | 7 | 35 |
| Safe/low use of hazardous chemicals | 5 | 8 | 40 | 7 | 35 | 8 | 40 | 8 | 40 |
| | We | eighted Score Subtotal | 345 | | 335 | | 340 | | 350 |
| Risk | | | | | | | | | |
| Changes in future regulations, public perception or land use | 4 | 5 | 20 | 7 | 28 | 5 | 20 | 5 | 20 |
| | We | eighted Score Subtotal | 20 | | 28 | | 20 | | 20 |
| Compatibility with Site | | | | | | | | | |
| Ability to fit on site | 2 | 6 | 12 | 8 | 16 | 6 | 12 | 7 | 14 |
| Compatibility with surrounding land uses | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | We | eighted Score Subtotal | 19 | | 23 | | 19 | | 21 |
| Community/Environmental Criteria | | - | | | | - | | | |
| Odor, Noise, Air Quality, Traffic, Potential | 3 | 6 | 18 | 6 | 18 | 6 | 18 | 6 | 18 |
| A | We | eighted Score Subtotal | 18 | | 18 | | 18 | | 18 |
| Cost | 5 | | 40 | 0 | 20 | 7 | 25 | 7 | 25 |
| Construction cost/cash flow | 5 | 8 | 40 | 5 | 30 | / | 35 | / | 35 |
| Operations cost | 5 | 8 | 40 | (| 35 | 8 | 40 | 8 | 40 |
| 3 MGD Expansion Capital Cost | 5 | 6 | 30 | 0 | 45 | 7 | 35 | 7 | 35 |
| 5 MOD Expansion Capital Cost | We | added Score Subtotal | 150 | 3 | 140 | ' | 145 | ' | 145 |
| | Weight | ed Score Total | 711 | | 719 | | 687 | | 708 |
| | Non-Eco | nomic Weighted Score | 561 | | 579 | | 542 | • | 563 |
| | Eco | nomic Weighted Score | 150 | 1 | 140 | 1 | 145 | 1 | 145 |
| | 007 | 1 | 100 | 1 | 200 | 1 | 200 | | |
| weighted Score Tota | 397 | 4 | 403 | 4 | 383 | 4 | 396 | | |
| weighted Score Tota | I (50% NON-ECO | nomic/50% Economic) | 356 | 4 | 360 | 4 | 344 | 4 | 354 |
| Weighted Score Tota | 40% Non-Eco | nomic/60% Economic) | 258 | 4 | 258 | 4 | 250 | 4 | 256 |
| weighted Score Tota | II (30% Non-Eco | nomic//0% Economic) | 273 | J | 272 | J | 264 | 1 | 270 |
| 77 | | | | | | | | | |



4. Environmental Review

Kimley-Horn conducted a limited environmental due diligence review of the above referenced project site, consisting of one parcel (ID: A-33-33-28-A00-0040-0000). It is located at 3469 Ryker Drive North in Highlands County, Florida, and is 28.81 acres. Field reconnaissance was conducted on January 27, 2022 by a Kimley-Horn biologist to observe existing environmental conditions and evaluate the potential for occurrence of, or usage by, state and/or federally protected species, if any.

Onsite Conditions

The majority of the site was upland, with a small area of wetland in the middle southern border. It is a fringe from a larger wetland that continues off-site to the south. Coordination with the Southwest Florida Water Management District (SWFWMD) will be required if any wetland impacts are proposed, but currently it is not expected that it will be affected.

Species Concerns

Sand Skinks

Due to the suitable soils, elevation over 82 feet, and the suitable county, it was determined that this parcel contains habitat for the sand skink (Plestiodon reynoldsi) and bluetail mole skink (Eumeces egregius lividus). These species are both considered Federally Threatened. However, the intended impact area just south of the existing wastewater treatment facility contains mainly disturbed soils or currently developed roads. A pedestrian survey was conducted, and no skink tracks were observed. Consultation with the FWS is advised to determine if a skink coverboard survey needs to be conducted, but due to soil disturbance and a wetland to the south, FWS may not require a survey.

Florida Scrub-Jay

The west edge of the parcel boundary contains open sandy patches and a few scrub oaks, which is appropriate scrub-jay (Aphelocoma coerulescens) habitat. Scrub-jays are listed as Federally Threatened. An individual has also been documented within a mile of the site. This habitat is extremely limited onsite, but coordination with FWS is recommended to exclude the need for a scrub-jay survey.

Gopher Tortoise

This project also contains suitable soils and habitat for the gopher tortoise (Gopherus polyphemus), which is State Threatened and a candidate species for federal listing. No tortoise burrows or individuals were observed, however a 100% survey is required no more than 90 days prior to any site development activities within areas proposed for development. An FWC Gopher Tortoise Relocation permit will be required if any burrows are located within the area of impact, and a 25-foot buffer must be maintained around any unimpacted burrows that may be near the project area.

Bald Eagle

A bald eagle (Haliaeetus leucocephalus) nest is within a half mile of the site, but the parcel is out of the 660-foot mandatory eagle buffer; therefore no further action should be required. Bald eagles are no longer considered threatened or endangered but still maintain protections.



Summary

Based on the above-described reviews of databases and existing conditions observed during the January 27, 2022 field reconnaissance, no state or federally protected species have been previously documented on-site or were observed in the field. However, it is anticipated that a formal gopher tortoise survey will be required. Additionally, further consultation with the USFWS is recommended to confirm that skink and scrub jay surveys will not be required. Mitigation opportunities regarding potential listed species impacts would be determined after consultation with FWS, and conducting the necessary species surveys.

The construction of the improvements should not significantly impact public health, safety, or the welfare or the property of others; properties adjacent to the project site include commercial services, orange groves, or undeveloped forest.

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5. Conclusion and Recommendations

Based on the approach utilized in this analysis the following conclusions have been reached. They are not presented in any particular order.

- The existing WWTP will require extensive renewal and rehabilitation over the next 5-years.
- Multiple wastewater treatment site layout and process alternatives were developed for the proposed improvements.
- A current treatment technology review and assessment were conducted to determine process alternatives for the improvements.
- Advanced wastewater treatment technologies were considered in developing the process alternatives for the proposed improvements.
- Future stringent regulatory requirements were considered in developing the process alternatives for the proposed improvements.
- Economic and non-economic weighting factors were developed to evaluate the alternatives.
- The evaluation factors included final input from the City.
- Each alternative was scored based on the economic and non-economic factors.
- The alternative evaluation included weighted economic and non-economic scoring.
- The evaluation determined the Expansion Alternative No. XX was the best value to the City.
- The evaluation determined the **Septage Receiving Alternative No. 2** was the best value to the City.
- The City charges a low rate to accept septage based on other nearby septage receiving facilities. It is recommended that the City increase the septage receiving rate above 0.06 cents per gallon received by performing a rate study by an independent rate specialist consultant to evaluate a marketable and justifiable structure that considers O&M and capital expenditures in addition to the future hauling costs increases.

5.1. Recommendation

Based on the conclusions presented, the **Septage Receiving Alternative No. 2** and **Expansion** Alternative No. X – XXX is recommended for implementation.

Though not the lowest cost option, when the non-economic advantages such as future regulatory concerns, facility location, and long-term operations are considered in the evaluation, the **Septage Receiving Alternative No. 2 and Expansion Alternative No.** X - XXX represents the "best value" for the City and is recommended for implementation within the capital improvement project planning horizon.



6. Implementation Plan

The recommended improvements will employ treatment technologies designed to provide effluent quality that meets or exceeds local, state and federal regulations.

The improvements provide a high degree of reliability and safeguards designed to provide consistent quality under the full range of flow conditions.

6.1. Implementation Schedule

Implementing the improvements should follow a normal progression of design and construction and include necessary time periods for regulatory review and plan approvals. The anticipated timeline of activities and milestones is presented in *Table 7.1*.

Table 6.1 Implementation Schedule

| Activity or Milestone | Duration (Months) |
|---|-------------------|
| FDEP Facility Plan | Complete |
| Preliminary Engineering Report₁ | <mark>3</mark> |
| Funding Application and Coordination ₁ | <mark>6</mark> |
| Request for Proposals (RFP) for WRF Design1 | <mark>3</mark> |
| Detailed Design and FDEP Permitting | <mark>12</mark> |
| Bidding, Bid Evaluation, and Award Recommendation | <mark>4</mark> |
| Award Construction Contract | <mark>2</mark> |
| Construction₁ | <mark>24</mark> |
| Start-Up ₁ | 3 |

1 Activity may occur simultaneously



APPENDICES



APPENDIX A: Permit



FLORIDA DEPARTMENT OF Environmental Protection

South District Office 2295 Victoria Ave, Suite 364 Ft. Myers, Florida 33901-3875

STATE OF FLORIDA DOMESTIC WASTEWATER FACILITY PERMIT

PERMITTEE: City of Avon Park

RESPONSIBLE OFFICIAL: Rick Whalen, P.E., Public Works Director 110 E. Main St Avon Park, Florida 33825-3945 (863) 452-4400 rwhalen@avonpark.cc PERMIT NUMBER: FILE NUMBER: ISSUANCE DATE: EFFECTIVE DATE: EXPIRATION DATE:

FLA014313 FLA014313-016-DW1P March 16, 2021 May 10, 2021 May 9, 2026

FACILITY:

City of Avon Park WWTF US Highway 27 S. Avon Park, FL 33825 Highlands County Latitude: 27°33' 36.5343" N Longitude: 81°31' 2.4283" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and applicable rules of the Florida Administrative Code (F.A.C.). This permit does not constitute authorization to discharge wastewater other than as expressly stated in this permit. This permit is accompanied by an Administrative Order, pursuant to paragraphs 403.088(2)(e) and (f), Florida Statutes. Compliance with Administrative Order, AO-014313-016, is a specific requirement of this permit. The above-named permittee is hereby authorized to operate the facilities in accordance with the documents attached hereto and specifically described as follows:

WASTEWATER TREATMENT:

Operate an existing 1.50 million gallons per day (MGD) design capacity wastewater treatment plant (WWTP) annual average daily flow (AADF) extended aeration process. The WWTP consists of: pretreatment works with a mechanical micro-screen and aerated grit channel system, two concrete oxidation ditches with a total capacity of 1,500,000 gallons, dual clarifiers for a total of 416,000 gallons, RAS/WAS pump station, dual holding tanks for a total of 90,000 gallons, dual sludge drying beds and a single 49,000 gallon chlorine contact chamber. Disinfection is accomplished using liquid sodium hypochlorite. This facility also has automated septage processing equipment to manage their own and other WWTP facilities biosolids. The maximum capacity of the screw press is 250 dry pounds per hour and 1,095 dry tons per year. All of the filtrate from the press will be pumped back to the headworks of the wastewater treatment facility.

The permittee is authorized to demolish and replace the headworks with the following configuration: mechanical bar screen in a stainless steel channel, a bypass channel with manual bypass screen, grit removal system, lamella plate separator, grease removal system grit classifier screw and associated appurtenances.

REUSE OR DISPOSAL:

Land Application R-001: An existing 1.85 MGD annual average daily flow permitted capacity rapid infiltration basin system. R-001 is a reuse system which consists of an existing 1.85 MGD annual average daily flow (AADF) capacity rapid rate land application system (R-001) consisting of eight evaporation/percolation ponds. R-001 is located approximately at latitude 27°33' 38" N, longitude 81°31' 3" W.

IN ACCORDANCE WITH: The limitations, monitoring requirements, and other conditions set forth in this cover sheet and Part I through Part IX on pages 1 through 18 of this permit.

Ron DeSantis Governor

Jeanette Nuñez Lt. Governor

Noah Valenstein Secretary

I. RECLAIMED WATER AND EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Reuse and Land Application Systems

1. During the period beginning on the effective date and lasting through the expiration date of this permit, the permittee is authorized to direct reclaimed water to Reuse System R-001. Such reclaimed water shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.B.6:

| | | Reclaimed Water Limitations | | Monitoring Requirements | | | | |
|---|---------|-----------------------------|------------------------------|--|--------------------------|--|------------------------------|------------------------------|
| Parameter | Units | Max. /Min | Limit | Statistical Basis | Frequency of Analysis | Sample Type | Monitoring Site Number | Notes |
| Flow | MGD | Max Max | 1.85 Report | Annual Average Monthly Average | Continuous | Recording Flow Meter with Totalizer | FLW-1 | See I.A.4 |
| BOD, Carbonaceous 5 day, 20C | mg/L | Max Max Max Max | 20.0 30.0 45.0 60.0 | Annual Average Monthly Average Weekly Average Single Sample | Weekly | 8-hr FPC | EFA-1 | |
| Solids, Total Suspended | mg/L | Max Max Max Max | 20.0 30.0 45.0 60.0 | Annual Average Monthly Average Weekly Average Single Sample | Weekly | 8-hr FPC | EFA-1 | |
| Coliform, Fecal | #/100mL | Max Max Max Max | 200 200 400 800 | Annual Average Monthly Geometric Mean 90th Percentile Single Sample | Weekly | Grab | EFA-1 | See I.A.5 and I.A.6 |
| pН | s.u. | Min Max | 6.0 8.5 | Single Sample Single Sample | Continuous | Meter | EFA-1 | See I.A.3 |
| Chlorine, Total Residual (For Disinfection) | mg/L | Min | 0.5 | Single Sample | Continuous | Meter | EFA-1 | See I.A.7 and I.A.3 |
| Nitrogen, Nitrate, Total (as N) | mg/L | Max | 12.0 | Single Sample | Weekly | 8-hr FPC | EFA-1 | |
| Nitrogen, Total | mg/L | Max | Report | Single Sample | Quarterly | Grab | EFA-1 | |
| Phosphorus, Total (as P) | mg/L | Max | Report | Single Sample | Quarterly | Grab | EFA-1 | |

2. Reclaimed water samples shall be taken at the monitoring site locations listed in Permit Condition I.A.1. and as described below:

| Monitoring Site Number | Description of Monitoring Site |
|-----------------------------|---|
| filointoring bite ritaniber | Description of Momenting Site |
| FLW-1 | Flow measurement: Effluent flow meter (ultrasonic) with recorder and totalizer located near |
| | the overflow weir at the discharge of the chlorine contact chamber. |
| EFA-1 | Effluent sample taken at discharge from CCC and prior to reclaimed water entering the disposal distribution line. |

- 3. Hourly measurement of pH and total residual chlorine for disinfection during the period of required operator attendance may be substituted for continuous measurement. [62-600.660(1)]
- 4. A recording flow meter with totalizer shall be utilized to measure flow and calibrated at least once every 12 months. *[62-600.200(25)]*
- 5. The effluent limitation for the monthly geometric mean for fecal coliform is only applicable if 10 or more values are reported. If fewer than 10 values are reported, the monthly geometric mean shall be calculated and reported on the Discharge Monitoring Report to be used to calculate the annual average. All other fecal coliform effluent limitations included in permit condition I.A.1 apply regardless of the number of values reported. [62-600.440(5)(b)]
- 6. To report the "90th percentile,"
 - a. Place the bacteria results in ascending order (from lowest to highest value) and assign each sample a number, 1 for the lowest value.
 - b. Multiply the total number of samples by 0.9 to determine the 90th percentile level.
 - c. Report the value of the sample that corresponds to the 90th percentile level (e.g., 10 samples x 0.9 = 9, report the value of the 9th sample). If the 90th percentile level is not a whole number, rounding or interpolation should be used to determine the 90th percentile. When rounding, round down to the nearest whole number if the decimal is 0.4 or lower, and round up to the nearest whole number if the decimal is 0.5 or higher (e.g., 12 samples x 0.9 = 10.8, report the value of the 11th sample if rounding).

[62-600.440(5)(a)3]

7. Total residual chlorine must be maintained for a minimum contact time of 15 minutes based on peak hourly flow. [62-610.510][62-600.440(5)(c) and (6)(b)]

B. Other Limitations and Monitoring and Reporting Requirements

1. During the period beginning on the effective date and lasting through the expiration date of this permit, the treatment facility shall be limited and monitored by the permittee as specified below and reported in accordance with condition I.B.6:

| | | | | Limitations | Mon | itoring Requirem | ients | |
|--|---------|--------------|--------|-------------------|-----------------------|------------------|------------------------------|--------------|
| Parameter | Units | Max. /Min | Limit | Statistical Basis | Frequency of Analysis | Sample Type | Monitoring Site Number | Notes |
| Percent Capacity, (TMADF/Permitted Capacity) x 100 | percent | Max | Report | Monthly Average | Monthly | Calculated | CAL-1 | |
| BOD, Carbonaceous 5 day, 20C (Influent) | mg/L | Max | Report | Single Sample | Weekly | 8-hr FPC | INF-1 | See I.B.3 |
| Solids, Total Suspended (Influent) | mg/L | Max | Report | Single Sample | Weekly | 8-hr FPC | INF-1 | See I.B.3 |

2. Samples shall be taken at the monitoring site locations listed in Permit Condition I.B.1. and as described below:

| Monitoring Site Number | Description of Monitoring Site |
|------------------------|---|
| CAL-1 | Calculated from flow measurements. |
| INF-1 | Influent sample taken at the headworks of the WWTF. |

- 3. Influent samples shall be collected so that they do not contain digester supernatant or return activated sludge, or any other plant process recycled waters. [62-600.660(4)(a)]
- 4. The sample collection, analytical test methods, and method detection limits (MDLs) applicable to this permit shall be conducted using a sufficiently sensitive method to ensure compliance with applicable water quality standards and effluent limitations and shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-600, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantitation limits), which is titled "FAC 62-4 MDL/PQL Table (November 10, 2020)" is available at https://floridadep.gov/dear/quality-

assurance/content/quality-assurance-resources. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:

- a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;
- b. The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide an MDL, which is equal to or less than the applicable water quality criteria stated in 62-302, F.A.C.; and
- c. If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

When the analytical results are below method detection or practical quantitation limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

Where necessary, the permittee may request approval of alternate methods or for alternative MDLs or PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the above-referenced list is not necessary if the analytical method is approved in accordance with 40 CFR 136 or deemed acceptable by the Department. *[62-4.246, 62-160]*

- 5. The permittee shall provide safe access points for obtaining representative samples which are required by this permit. [62-600.650(2)]
- 6. Monitoring requirements under this permit are effective on the first day of the second month following the effective date of the permit. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements. If not already registered to use the Department's Ez Discharge Monitoring Report (EzDMR) system, the permittee should register now in order to begin using the EzDMR system when the monitoring requirements under this permit are effective. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e. monthly, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this permit. Unless specified otherwise in this permit, monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below. DMRs shall be submitted for each required monitoring period including periods of no discharge.

| REPORT Type on DMR | Monitoring Period | Submit by |
|--------------------|--|-----------------------------|
| Monthly | First day of month - last day of month | 28th day of following month |
| Quarterly | January 1 - March 31 | April 28 |
| | April 1 - June 30 | July 28 |
| | July 1 - September 30 | October 28 |
| | October 1 - December 31 | January 28 |
| Semiannual | January 1 - June 30 | July 28 |
| | July 1 - December 31 | January 28 |
| Annual | January 1 - December 31 | January 28 |

The permittee shall submit the completed DMR to the Department by the twenty-eighth (28th) of the month following the month of operation. Please contact the Department at (239) 344-5600 if you are unable to submit the completed DMR electronically using the EzDMR system.

The Department electronic EzDMR system at the time of permit issuance is available through the DEP Business Portal at: <u>http://www.fldepportal.com/go/submit-report/</u>

[62-620.610(18)][62-600.680(1)]

- 7. During the period of operation authorized by this permit, reclaimed water or effluent shall be monitored annually for the primary and secondary drinking water standards contained in Chapter 62-550, F.A.C., (except for asbestos, total coliform, color, odor, and residual disinfectants). These monitoring results shall be reported to the Department annually on the DMR. During years when a permit is not renewed, a certification stating that no new non-domestic wastewater dischargers have been added to the collection system since the last reclaimed water or effluent analysis was conducted may be submitted with the signed DMR in lieu of performing the analysis. When such a certification is submitted with the DMR, monitoring not required this period should be noted on the DMR. The annual reclaimed water or effluent analysis report, and certification if applicable, shall be completed and submitted in a timely manner so as to be received by the Department at the address identified on the DMR by January 28 of each year. Approved analytical methods identified in Rule 62-620.100(3)(j), F.A.C., shall be used for the analysis. If no method is included for a parameter, methods specified in Chapter 62-550, F.A.C., shall be used. *[62-600.660(2) and (3)(d)][62-600.680(2)][62-610.300(4)]*
- 8. The permittee shall submit an Annual Reuse Report using DEP Form 62-610.300(4)(a)2. on or before January 1 of each year. [62-610.870(3)]
- 9. Except as otherwise specified in this permit, all reports and other information required by this permit, including 24-hour notifications, shall be submitted to the Department in a digital format when practicable. The Department's electronic mailing address is:

SouthDistrict@FloridaDEP.gov

Please contact the Department at (239) 344-5600 if you are unable to submit electronically.

[62-620.610(11)]

10. All reports and other information shall be signed in accordance with the requirements of Rule 62-620.305, F.A.C. *[62-620.305]*

II. BIOSOLIDS MANAGEMENT REQUIREMENTS

A. Basic Requirements

- 1. Biosolids generated by this facility may be Landfill and/or transferred to unknown or disposed of in a Class I solid waste landfill. Transferring biosolids to an alternative biosolids treatment facility does not require a permit modification. However, use of an alternative biosolids treatment facility requires submittal of a copy of the agreement pursuant to Rule 62-640.880(1)(c), F.A.C., along with a written notification to the Department at least 30 days before transport of the biosolids. *[62-620.320(6), 62-640.880(1)]*
- 2. The permittee shall monitor and keep records of the quantities of biosolids generated, received from source facilities, treated, distributed and marketed, land applied, used as a biofuel or for bioenergy, transferred to another facility, or landfilled. These records shall be kept for a minimum of five years. [62-640.650(4)(a)]
- 3. Biosolids quantities shall be monitored by the permittee as specified below. Results shall be reported on the permittee's Discharge Monitoring Report for Monitoring Group RMP-Q in accordance with Condition I.B.6:

PERMITTEE:City of Avon ParkFACILITY:City of Avon Park WWTP

PERMIT NUMBER: PA FILE NUMBER:

FLA014313 FLA014313-016-DW1P

| | | | | Biosolids Limitation | Mon | | | |
|-------------------------------------|----------|--------------|--------|----------------------|-----------------------|-------------|------------------------------|-------|
| Parameter | Units | Max. /Min | Limit | Statistical Basis | Frequency of Analysis | Sample Type | Monitoring Site Number | Notes |
| Biosolids Quantity (Received) | dry tons | Max | Report | Monthly Total | Monthly | Calculated | RMP-2 | |
| Biosolids Quantity (Landfilled) | dry tons | Max | Report | Monthly Total | Monthly | Calculated | RMP-1 | |
| Biosolids Quantity (Transferred) | dry tons | Max | Report | Monthly Total | Monthly | Calculated | RMP-1 | |

[62-640.650(5)(a)1]

4. Biosolids quantities shall be calculated as listed in Permit Condition II.3 and as described below:

| Monitoring Site Number | Description of Monitoring Site Calculations |
|------------------------|---|
| RMP-1 | Biosolids sent out |
| RMP-2 | Biosolids received |

- 5. The treatment, management, transportation, use, land application, or disposal of biosolids shall not cause a violation of the odor prohibition in subsection 62-296.320(2), F.A.C. [62-640.400(6)]
- 6. Storage of biosolids or other solids at this facility shall be in accordance with the Facility Biosolids Storage Plan. [62-640.300(4)]
- 7. Biosolids shall not be spilled from or tracked off the treatment facility site by the hauling vehicle. [62-640.400(9)]

B. Disposal

1. Disposal of biosolids, septage, and "other solids" in a solid waste disposal facility, or disposal by placement on land for purposes other than soil conditioning or fertilization, such as at a monofill, surface impoundment, waste pile, or dedicated site, shall be in accordance with Chapter 62-701, F.A.C. [62-640.100(6)(b) & (c)]

C. Transfer

- 1. The permittee shall not be held responsible for treatment and management violations that occur after its biosolids have been accepted by a permitted biosolids treatment facility with which the source facility has an agreement in accordance with subsection 62-640.880(1)(c), F.A.C., for further treatment, management, or disposal. [62-640.880(1)(b)]
- 2. The permittee shall keep hauling records to track the transport of biosolids between the facilities. The hauling records shall contain the following information:

Source Facility

- 1. Date and time shipped
- 2. Amount of biosolids shipped
- 3. Degree of treatment (if applicable)
- 4. Name and ID Number of treatment facility
- 5. Signature of responsible party at source facility
- 6. Signature of hauler and name of hauling firm

Biosolids Treatment Facility or Treatment Facility

- 1. Date and time received
- 2. Amount of biosolids received
- 3. Name and ID number of source facility
- 4. Signature of hauler
- 5. Signature of responsible party at treatment facility

A copy of the source facility hauling records for each shipment shall be provided upon delivery of the biosolids to the biosolids treatment facility or treatment facility. The treatment facility permittee shall report to the Department within 24 hours of discovery any discrepancy in the quantity of biosolids leaving the source facility and arriving at the biosolids treatment facility or treatment facility.

[62-640.880(4)]

D. Receipt

- 1. The permittee shall be responsible for proper treatment, management, and disposition of biosolids accepted from source facilities. [62-640.880(1)(a)]
- 2. The permittee shall enter into a written agreement with each source facility that it intends to receive biosolids from. The agreement shall address the quality and quantity of the biosolids accepted by the permittee. The agreement shall include a statement, signed by the permittee, as to the availability of sufficient permitted capacity to receive the biosolids from the source facility, and indicating that the permittee will continue to operate in compliance with the requirements of its permit. The agreement shall also address responsibility during transport of biosolids between the facilities. The permittee shall submit a copy of this agreement to the Department's South District Office at least 30 days before transporting biosolids from the source facility to the permittee. [62-640.880(1)(c)]

III. GROUND WATER REQUIREMENTS

A. Construction Requirements

- 1. The permittee shall give at least 72-hour notice to the Department's South District Office, prior to the installation of any monitoring wells. [62-520.600(6)(h)]
- Before construction of new ground water monitoring wells, a soil boring shall be made at each new monitoring well location to properly determine monitoring well specifications such as well depth, screen interval, screen slot, and filter pack. [62-520.600(6)(g)]
- 3. Within 30 days after installation of a monitoring well, the permittee shall submit to the Department's South District Office well completion reports and soil boring/lithologic logs on DEP Form 62-520.900(3), Monitoring Well Completion Report. [62-520.600(6)(j) and .900(3)]
- 4. All piezometers and monitoring wells not part of the approved ground water monitoring plan shall be plugged and abandoned in accordance with Rule 62-532.500(5), F.A.C., unless future use is intended. [62-532.500(5)]

B. Operational Requirements

- 1. For the Part IV land application system(s), all ground water quality criteria specified in Chapter 62-520, F.A.C., shall be met at the edge of the zone of discharge. The zone of discharge for Land Application Site R-001 shall extend horizontally 100 or to the facilities property line, whichever is less and vertically to the base of the shallow water table aquifer. [62-520.200(27)] [62-520.465]
- 2. The ground water minimum criteria specified in Rule 62-520.400 F.A.C., shall be met within the zone of discharge. [62-520.400 and 62-520.420(4)]
- 3. If the concentration for any constituent listed in Permit Condition III.6. in the natural background quality of the ground water is greater than the stated maximum, or in the case of pH is also less than the minimum, the representative background quality shall be the prevailing standard. *[62-520.420(2)]*
- 4. During the period of operation authorized by this permit, the permittee shall continue to sample ground water at the monitoring wells identified in Permit Condition III.5., below in accordance with this permit and the

approved ground water monitoring plan prepared in accordance with Rule 62-520.600, F.A.C. [62-520.600] [62-610.510]

5. The following monitoring wells shall be sampled for Reuse System R-001 located at Land Application Site RIB-001:

| Monitoring Well | Alternate Well Name and/or Description of Monitoring | | | Depth | Aquifer | | New or |
|-----------------|---|------------|------------|--------|-----------|--------------|----------|
| ID | Location | Latitude | Longitude | (Feet) | Monitored | Well Type | Existing |
| MWC-20805 | MONITORING WELL #4 | 27°30' 39" | 81°30' 45" | 15 | Surficial | Compliance | Existing |
| MWC-151292 | NE corner compliance well | 24°35' 27" | 83°51' 3" | 40 | Surficial | Compliance | Existing |
| MWC-20806 | MONITORING WELL #3 | 27°30' 40" | 81°30' 45" | 15 | Surficial | Compliance | Existing |
| MWC-20807 | MONITORING WELL #2 | 27°30' 40" | 81°30' 58" | 15 | Surficial | Compliance | Existing |
| MWB-151297 | Background well Northwest of North pond | 24°35' 27" | 83°51' 4" | 40 | Surficial | Background | Existing |
| MWB-151298 | Background well Southwest of South pond | 24°35' 26" | 83°51' 4" | 40 | Surficial | Background | Existing |
| MWB-20808 | MONITORING WELL #1 | 27°31' 34" | 81°31' 10" | 15 | Surficial | Background | Existing |
| MWC-151293 | SE corner compliance well | 24°35' 26" | 83°51' 3" | 40 | Surficial | Compliance | Existing |
| MWI-151295 | Intermediate well west of North pond | 24°35' 27" | 83°51' 4" | 40 | Surficial | Intermediate | Existing |
| MWI-151296 | Intermediate well West of South pond | 24°35' 26" | 81°51' 4" | 40 | Surficial | Intermediate | Existing |
| MWI-151294 | Intermediate well between the 2 ponds | 24°35' 26" | 81°51' 3" | 40 | Surficial | Intermediate | Existing |

[62-520.600] [62-610.510]

6. The following parameters shall be analyzed for each monitoring well identified in Permit Condition III.5.:

| Parameter | Compliance Well Limit | Units | Sample Type | Monitoring Frequency |
|-------------------------------|--------------------------|---------|-------------|-------------------------|
| Water Level Relative to NGVD | Report | ft | Grab | Quarterly |
| Nitrogen, Nitrate, Dissolved | Report | mg/L | Grab | Quarterly |
| Solids, Total Dissolved (TDS) | 500 | mg/L | Grab | Quarterly |
| Arsenic, Total Recoverable | 0.010 | mg/L | Grab | Quarterly |
| Chloride (as Cl) | 250 | mg/L | Grab | Quarterly |
| Cadmium, Total Recoverable | 0.005 | mg/L | Grab | Quarterly |
| Chromium, Total Recoverable | 0.1 | mg/L | Grab | Quarterly |
| Lead, Total Recoverable | 0.015 | mg/L | Grab | Quarterly |
| Coliform, Fecal | 4 | #/100mL | Grab | Quarterly |
| pН | 6.5 - 8.5 | s.u. | In Situ | Quarterly |
| Sulfate, Total | 250 | mg/L | Grab | Quarterly |
| Turbidity | Report | NTU | Grab | Quarterly |
| Nitrogen, Total | 3 | mg/L | Grab | Quarterly |
| Phosphorus, Total (as P) | 1 | Mg/L | Grab | Quarterly |

[62-520.600(11)(b)] [62-600.670] [62-600.650(3)] [62-520.310(5)]

- 7. Water levels shall be recorded before evacuating each well for sample collection. Elevation references shall include the top of the well casing and land surface at each well site (NAVD allowable) at a precision of plus or minus 0.01 foot. [62-520.600(11)(c)] [62-610.510(3)(b)]
- 8. Ground water monitoring wells shall be purged prior to sampling to obtain representative samples. [62-160.210] [62-600.670(3)]

- 9. Analyses shall be conducted on unfiltered samples, unless filtered samples have been approved by the Department's South District Office as being more representative of ground water conditions. [62-520.310(5)]
- 10. Ground water monitoring test results shall be submitted on Part D of Form 62-620.910(10) in accordance with Permit Condition I.B.6. [62-520.600(11)(b)] [62-600.670] [62-600.680(1)] [62-620.610(18)]
- 11. If any monitoring well becomes inoperable or damaged to the extent that sampling or well integrity may be affected, the permittee shall notify the Department's South District Office within two business days from discovery, and a detailed written report shall follow within ten days after notification to the Department. The written report shall detail what problem has occurred and remedial measures that have been taken to prevent recurrence or request approval for replacement of the monitoring well. All monitoring well design and replacement shall be approved by the Department's South District Office before installation. [62-520.600(6)(l)]
- 12. The permittee shall sample the monitoring wells listed in Section III.B.5 above for the primary and secondary drinking water parameters included in Rules 62-550.310 and 62-550.320, F.A.C., (except for asbestos and all parameters in Table 5 of Chapter 62-550, F.A.C., other than Di(2-ethylhexyl) adipate and Di(2-ethylhexyl) phthalate). Results of this sampling shall be submitted to the Department's South District Office with the application for permit renewal. Sampling shall occur no sooner than 180 days before submittal of the renewal application. *[62-520.600(5)(b)]*

IV. ADDITIONAL REUSE AND LAND APPLICATION REQUIREMENTS

A. Part IV Rapid Infiltration Basins

- 1. Advisory signs shall be posted around the site boundaries to designate the nature of the project area. [62-610.518]
- 2. The maximum annual average loading rate to land application system shall be limited to 3 inches per day (as applied to the entire bottom area). [62-610.523(3)]
- 3. Each of the ponds in R-001 shall be loaded for 7 days and shall be rested for 7 days and shall be allowed to dry during the resting portion of the cycle.[62-610.523(4)]
- 4. Rapid infiltration basins shall be routinely maintained to control vegetation growth and to maintain percolation capability by scarification or removal of deposited solids. Basin bottoms shall be maintained to be level. [62-610.523(6) and (7)]
- 5. Routine aquatic weed control and regular maintenance of storage pond embankments and access areas are required. [62-610.514 and 62-610.414]
- 6. Overflows from emergency discharge facilities on storage ponds or on infiltration ponds, basins, or trenches shall be reported as abnormal events in accordance with Permit Condition IX.20. [62-610.800(9)]

V. OPERATION AND MAINTENANCE REQUIREMENTS

A. Staffing Requirements

1. During the period of operation authorized by this permit, the wastewater facilities shall be operated under the supervision of one or more operators certified in accordance with Chapter 62-602, F.A.C. In accordance with Chapter 62-699, F.A.C., this facility is a Category III, Class C facility and, at a minimum, operators with appropriate certification must be on the site as follows:

A Class C or higher operator 6 hours/day for 5 days/week and one visit on each weekend day. The lead/chief operator must be a Class C operator, or higher.

2. An operator meeting the lead/chief operator class for the plant shall be available during all periods of plant operation. "Available" means able to be contacted as needed to initiate the appropriate action in a timely manner. [62-699.311(1)]

B. Capacity Analysis Report and Operation and Maintenance Performance Report Requirements

- 1. The application to renew this permit shall include an updated capacity analysis report prepared in accordance with Rule 62-600.405, F.A.C. [62-600.405(5)]
- 2. The application to renew this permit shall include a detailed operation and maintenance performance report prepared in accordance with Rule 62-600.735, F.A.C. [62-600.735(1)]

C. Recordkeeping Requirements

- 1. The permittee shall maintain the following records and make them available for inspection at the following address: on the site of the permitted facility.
 - a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;
 - b. Copies of all reports required by this permit for at least three years from the date the report was prepared;
 - c. Records of all data, including reports and documents, used to complete the application for this permit for at least three years from the date the application was filed;
 - d. Monitoring information, including a copy of the laboratory certification showing the laboratory certification number, related to the residuals use and disposal activities for the time period set forth in Chapter 62-640, F.A.C., for at least three years from the date of sampling or measurement;
 - e. A copy of the current wastewater facility permit;
 - f. Copies of the current operation and maintenance manuals for the wastewater facility and the collection/transmission systems owned or operated by the wastewater facility permittee as required by Chapters 62-600 and 62-604, F.A.C.;
 - g. A copy of any required record drawings for the wastewater facility and the collection/transmission systems owned or operated by the wastewater facility permittee;
 - h. Copies of the licenses of the current certified operators;
 - i. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules. The logs shall, at a minimum, include identification of the plant; the signature and license number of the operator(s) and the signature of the person(s) making any entries; date and time in and out; specific operation and maintenance activities, including any preventive maintenance or repairs made or requested; results of tests performed and samples taken, unless documented on a laboratory sheet; and notation of any notification or reporting completed in accordance with Rule 62-602.650(3), F.A.C. The logs shall be maintained on-site in a location accessible to 24-hour inspection, protected from weather damage, and current to the last operation and maintenance performed; and
 - j. Records of biosolids quantities, treatment, monitoring, and hauling for at least five years.

[62-620.350, 62-604.500, 62-602.650, 62-640.650(4)]

VI. SCHEDULES

- 1. In accordance with section 403.088(2)(e) and (f), Florida Statutes, a compliance schedule for this facility is contained in Administrative Order AO-014313-016 which is hereby incorporated by reference.
- 2. The permittee is not authorized to discharge to waters of the state after the expiration date of this permit, unless:

- a. The permittee has applied for renewal of this permit at least 180 days before the expiration date of this permit using the appropriate forms listed in Rule 62-620.910, F.A.C., and in the manner established in the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.; or
- b. The permittee has made complete the application for renewal of this permit before the permit expiration date.

[62-620.335(1) - (4)]

- 3. The permittee shall submit notification of completion of construction the headworks on DEP Form 62-620.910(12) prior to placing the newly constructed or modified portion of an existing facility into operation or any individual unit processes into operation, for any purpose other than testing for leaks and equipment operation. Provide notification to the Department on DEP Form 62-620.910(12) that construction has been completed.
- 4.. Within six months after a facility is placed in operation, the permittee shall provide written certification to the Department on Form 62-620.910(13) that record drawings pursuant to Chapter 62-600, F.A.C., and that an operation and maintenance manual pursuant to Chapters 62-600 and 62-610, F.A.C., as applicable, are available at the location specified on the form. [62-620.410(6) and 62-620.630(7)]

VII. INDUSTRIAL PRETREATMENT PROGRAM REQUIREMENTS

This facility is not required to have a pretreatment program at this time. [62-625.500]

VIII. OTHER SPECIFIC CONDITIONS

- 1. In the event that the wastewater facilities or equipment, including collection/transmission systems, no longer function as intended, are no longer safe in terms of public health and safety (including inactive or abandoned facilities), or odor, noise, aerosol drift, or lighting adversely affects neighboring developed areas at the levels prohibited by paragraphs 62-600.400(2)(a) and 62-604.400(2)(c), F.A.C., corrective action (which may include additional maintenance or modifications of the permitted facilities) shall be taken by the permittee. Other corrective action may be required to ensure compliance with rules of the Department. Additionally, the treatment, management, use or land application of residuals shall not cause a violation of the odor prohibition in subsection 62-296.320(2), F.A.C. [62-600.410(5), 62-604.500(3) and 62-640.400(6)]
- 2. All collection/transmission systems shall be operated and maintained so as to provide uninterrupted service. [62-604.500(2)]
- 3. The deliberate introduction of stormwater in any amount into collection/transmission systems designed solely for the introduction (and conveyance) of domestic/industrial wastewater; or the deliberate introduction of stormwater into collection/transmission systems designed for the introduction or conveyance of combinations of storm and domestic/industrial wastewater in amounts which may reduce the efficiency of pollutant removal by the treatment plant is prohibited, except as provided by Rule 62-610.472, F.A.C. [62-604.130(4)]
- 4. Cross-connection, as defined in Rule 62-550.200, F.A.C., between the wastewater facility, including the collection/transmission system, and a potable water system is prohibited. [62-550.360][62-604.130(3)]
- 5. The collection/transmission operation and maintenance manual shall be maintained and revised periodically in accordance with subsection 62-604.500(4), F.A.C., to reflect any alterations performed or to reflect experience resulting from operation. However, a new operation and maintenance manual is not required to be developed for each project if there is already an existing manual that is applicable to the facilities being constructed. [62-604.500(4)]

- 6. Collection/transmission system overflows shall be reported to the Department in accordance with Permit Condition IX. 20. [62-604.550] [62-620.610(20)]
- 7. The operating authority of a collection/transmission system and the permittee of a treatment plant are prohibited from accepting connections of wastewater discharges which have not received necessary pretreatment or which contain materials or pollutants (other than normal domestic wastewater constituents):
 - a. Which may cause fire or explosion hazards; or
 - b. Which may cause excessive corrosion or other deterioration of wastewater facilities due to chemical action or pH levels; or
 - c. Which are solid or viscous and obstruct flow or otherwise interfere with wastewater facility operations or treatment; or
 - d. Which result in the wastewater temperature at the introduction of the treatment plant exceeding 40°C or otherwise inhibiting treatment; or
 - e. Which result in the presence of toxic gases, vapors, or fumes that may cause worker health and safety problems.

[62-604.130(5)]

- 8. The treatment facility and rapid infiltration basins shall be enclosed with a fence or otherwise provided with features to discourage the entry of animals and unauthorized persons. [62-610.518(1) and 62-600.400(2)(b)]
- 9. Screenings and grit removed from the wastewater facilities shall be collected in suitable containers and hauled to a Department approved Class I landfill or to a landfill approved by the Department for receipt/disposal of screenings and grit. [62-701.300(1)(a)]
- 10. Where required by Chapter 471 or Chapter 492, F.S., applicable portions of reports that must be submitted under this permit shall be signed and sealed by a professional engineer or a professional geologist, as appropriate. [62-620.310(4)]
- 11. The permittee shall provide verbal notice to the Department's South District Office as soon as practical after discovery of a sinkhole or other karst feature within an area for the management or application of wastewater, wastewater residuals (sludges), or reclaimed water. The permittee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department's South District Office in a written report within 7 days of the sinkhole discovery. *[62-620.320(6)]*
- 12. The permittee shall provide notice to the Department of the following:
 - a. Any new introduction of pollutants into the facility from an industrial discharger which would be subject to Chapter 403, F.S., and the requirements of Chapter 62-620, F.A.C., if it were directly discharging those pollutants; and
 - b. Any substantial change in the volume or character of pollutants being introduced into that facility by a source which was identified in the permit application and known to be discharging at the time the permit was issued.

Notice shall include information on the quality and quantity of effluent introduced into the facility and any anticipated impact of the change on the quantity or quality of effluent or reclaimed water to be discharged from the facility. If pretreatment becomes necessary, this permit may be modified to require the permittee to develop and implement a local pretreatment program in accordance with the requirements of Chapter 62-625, F.A.C.

[62-620.625(2)]

IX. GENERAL CONDITIONS

- 1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, Florida Statutes. Any permit noncompliance constitutes a violation of Chapter 403, Florida Statutes, and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. [62-620.610(1)]
- 2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviations from the approved drawings, exhibits, specifications, or conditions of this permit constitutes grounds for revocation and enforcement action by the Department. [62-620.610(2)]
- 3. As provided in subsection 403.087(7), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. [62-620.610(3)]
- 4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. [62-620.610(4)]
- 5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [62-620.610(5)]
- 6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. [62-620.610(6)]
- 7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. [62-620.610(7)]
- 8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [62-620.610(8)]
- 9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to:
 - a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;
 - b. Have access to and copy any records that shall be kept under the conditions of this permit;
 - c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and
 - d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.

[62-620.610(9)]

- 10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, F.S., or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. [62-620.610(10)]
- 11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. [62-620.610(11)]
- 12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. *[62-620.610(12)]*
- 13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. [62-620.610(13)]
- 14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. [62-620.610(14)]
- 15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility or activity and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. [62-620.610(15)]
- 16. The permittee shall apply for a revision to the Department permit in accordance with Rules 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. [62-620.610(16)]
- 17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:
 - a. A description of the anticipated noncompliance;
 - b. The period of the anticipated noncompliance, including dates and times; and
 - c. Steps being taken to prevent future occurrence of the noncompliance.

[62-620.610(17)]

18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246 and Chapters 62-160, 62-600, and 62-610, F.A.C., and 40 CFR 136, as appropriate.

- a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10), or as specified elsewhere in the permit.
- b. If the permittee monitors any contaminant more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
- c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.
- d. Except as specifically provided in Rule 62-160.300, F.A.C., any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). Such certification shall be for the matrix, test method and analyte(s) being measured to comply with this permit. For domestic wastewater facilities, testing for parameters listed in Rule 62-160.300(4), F.A.C., shall be conducted under the direction of a certified operator.
- e. Field activities including on-site tests and sample collection shall follow the applicable standard operating procedures described in DEP-SOP-001/01 adopted by reference in Chapter 62-160, F.A.C.
- f. Alternate field procedures and laboratory methods may be used where they have been approved in accordance with Rules 62-160.220, and 62-160.330, F.A.C.

[62-620.610(18)]

- 19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. [62-620.610(19)]
- 20. The permittee shall report to the Department any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. For noncompliance events related to sanitary sewer overflows or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (sanitary sewer overflows or bypass events), type of sewer overflow (e.g., manhole), discharge volumes by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather. The written submission may be provided electronically using the Department's Business Portal at https://www.fldepportal.com/go/ (via "Submit" followed by "Report" or "Registration/Notification"). Notice required under paragraph (d) may be provided together with the written submission using the Business Portal. All noncompliance events related to sanitary sewer overflows or bypass events submitted after December 21, 2020 shall be submitted electronically.
 - a. The following shall be included as information which must be reported within 24 hours under this condition:
 - (1) Any unanticipated bypass which causes any reclaimed water or the effluent to exceed any permit limitation or results in an unpermitted discharge,
 - (2) Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
 - (4) Any unauthorized discharge to surface or ground waters.
 - b. Oral reports as required by this subsection shall be provided as follows:
 - (1) For unauthorized releases or spills of treated or untreated wastewater reported pursuant to subparagraph (a)4. that are in excess of 1,000 gallons per incident, or where information indicates that

public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WATCH OFFICE TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Watch Office:

- (a) Name, address, and telephone number of person reporting;
- (b) Name, address, and telephone number of permittee or responsible person for the discharge;
- (c) Date and time of the discharge and status of discharge (ongoing or ceased);
- (d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
- (e) Estimated amount of the discharge;
- (f) Location or address of the discharge;
- (g) Source and cause of the discharge;
- (h) Whether the discharge was contained on-site, and cleanup actions taken to date;
- (i) Description of area affected by the discharge, including name of water body affected, if any; and
- (j) Other persons or agencies contacted.
- (2) Oral reports not otherwise required to be provided pursuant to subparagraph (b)1. above, shall be provided to the Department within 24 hours from the time the permittee becomes aware of the circumstances.
- c. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department shall waive the written report.
- d. In accordance with Section 403.077, F.S., unauthorized releases or spills reportable to the State Watch Office pursuant to subparagraph (b)1. above shall also be reported to the Department within 24 hours from the time the permittee becomes aware of the discharge. The permittee shall provide to the Department information reported to the State Watch Office. Notice of unauthorized releases or spills may be provided to the Department through the Department's Public Notice of Pollution web page at https://floridadep.gov/pollutionnotice.
 - (1) If, after providing notice pursuant to paragraph (d) above, the permittee determines that a reportable unauthorized release or spill did not occur or that an amendment to the notice is warranted, the permittee may submit additional notice to the Department documenting such determination.
 - (2) If, after providing notice pursuant to paragraph (d) above, the permittee discovers that a reportable unauthorized release or spill has migrated outside the property boundaries of the installation, the permittee must provide an additional notice to the Department that the release has migrated outside the property boundaries within 24 hours after its discovery of the migration outside of the property boundaries.

[62-620.610(20)] [62-620.100(3)] [403.077, F.S.]

- 21. The permittee shall report all instances of noncompliance not reported under Permit Conditions IX.17., IX.18., or IX.19. of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Permit Condition IX.20. of this permit. [62-620.610(21)]
- 22. Bypass Provisions.
 - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment works.
 - b. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:
 - (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
 - (2) 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

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- (3) The permittee submitted notices as required under Permit Condition IX.22.c. of this permit.
- c. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible, at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Permit Condition IX.20. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.
- d. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Permit Condition IX.22.b.(1) through (3) of this permit.
- e. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Permit Condition IX.22.b. through d. of this permit.

[62-620.610(22)]

- 23. Upset Provisions.
 - a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee.
 - (1) An upset does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation.
 - (2) An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of upset provisions of Rule 62-620.610, F.A.C., are met.
 - b. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in Permit Condition IX.20. of this permit; and
 - (4) The permittee complied with any remedial measures required under Permit Condition IX.5. of this permit.
 - c. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the permittee.
 - d. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.

[62-620.610(23)]

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Jon M. Iglehart Director of District Management

Attachments: Administrative Order Number AO-014313-016 Discharge Monitoring Report Statement of Basis



FLORIDA DEPARTMENT OF Environmental Protection

Ron DeSantis Governor

Jeanette Nuñez Lt. Governor

Noah Valenstein Secretarv

Administrative Order No. AO-014313-016

South District PO Box 2549 Fort Myers FL 33902-2549 SouthDistrict@FloridaDEP.gov

BEFORE THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

IN THE MATTER OF:

City of Avon Park Rick Whalen, P.E., Public Works Director 110 E. Main Street Avon Park, Florida 33825-3945 <u>rwhalen@avonpark.cc</u>

City of Avon Park WWTF Department Permit No: FLA014313-016-DW1P

ORDER ESTABLISHING COMPLIANCE SCHEDULE UNDER SECTION 403.088(2)(f), F.S.

I. STATUTORY AUTHORITY

The Department of Environmental Protection (Department) issues this Administrative Order (Order) under the authority of §403.087, Florida Statutes (F.S.). The Secretary of the Department has delegated this authority to the Director of District Management, who issues this Order and makes the following findings of fact.

II. FINDINGS OF FACT

- 1. City of Avon Park, ("Permittee") is a person under section 403.031, F.S
- The Permittee owns and operates the City of Avon Park WWTF, located at US Highway 27 S., Avon Park, Florida which discharges wastewater into ground water of the State as defined in Section 403.031 of the Florida Statutes.
- The Department has issued Final Order Number 20-0065 Lake Okeechobee Basin Management Action Plan which establishes limits for Total Nitrogen and Total Phosphorus. The text for this order can be found at the following link: <u>https://floridadep.gov/ogc/ogc/documents/20-0040</u>
- 4. The Permittee has filed application for permit renewal of the above referenced Department permit under §403.087, F.S.
- 5. The Permittee has not provided reasonable assurance that the facility discharge will meet the effluent requirements of Final Order 20-0065.

- 6. Sections 403.088(2)(e) and (f), F.S., authorize the Department to issue a permit for the discharge of wastes into waters of the state, accompanied by an order establishing a schedule for achieving compliance with all permit conditions if specified criteria are met.
- 7. There is no present, reasonable, alternative means of disposing of the waste other than by discharging it into the waters of the state.

III. ORDER

Based on the foregoing findings of fact,

IT IS ORDERED,

- 1. The Permittee shall be in full compliance with the final conditions of the permit by November 30, 2023.
- 2. The Permittee shall submit comply with the following schedule:

| | Action Item | Due Date | | | |
|----|--|---|--|--|--|
| a. | Sample the effluent monthly for total nitrogen and total phosphorus concentrations. This shall be a "report" only requirement during the active administrative order. | Beginning July 1, 2021 | | | |
| b. | Retain a licensed engineer or geologist to evaluate the effluent and groundwater qualities of total nitrogen and total phosphorus. | October 1, 2021 | | | |
| c. | Submit a licensed engineer or geologist's report demonstrating that the effluent discharge does not cause or contribute to total nitrogen or total phosphorus violations at the edge of the zone of discharge. | June 31, 2022 | | | |
| d. | If the report provided to the Department does not demonstrate that the effluent discharge does not cause or contribute to total nitrogen or total phosphorus violations, the permittee shall:i. Submit a complete application to modify the treatment facility for nutrient removal, or | August 31, 2022 | | | |
| i | i. Submit a complete application to modify the reuse or disposal system, or | | | | |
| ii | i. Submit an application for a domestic wastewater collection system connection to another wastewater treatment facility | | | | |
| e. | The permittee shall commence construction of the chosen modifications. | Within 6 months of permit revision or collection system permit | | | |

3. The Permittee shall report the concentrations of Total Nitrogen and Total Phosphorus in the effluent and the monitoring wells, monthly on the Interim Discharge Monitoring Report.

- 4. The Permittee shall submit quarterly status reports (due by the 28th of January, April, July, and October) which show progress of the actions required to bring the facility into compliance.
- 5. Reports or other information required by this Order shall be sent electronically to <u>SouthDistrict@floridadep.gov</u>.
- 6. The Permittee shall maintain and operate its facilities in compliance with all other conditions of Department Permit No. FLA014313-016.
- 7. This Order may be modified through revisions as set forth in Chapter 62-620, F.A.C.
- 8. This Order does not operate as a permit under §403.087, F.S. This Order shall be incorporated by reference into Department Permit No. FLA014313-016., which shall require compliance by the Permittee with the requirements of this order.
- 9. Failure to comply with the requirements of this Order shall constitute a violation of this Order and Department Permit No. FLA014313-016 and may subject the Permittee to penalties as provided in §403.161, F.S.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Jon M. Iglehart Director of District Management

|--|

| PERMITTEE NAME: | City of Avon Park 110 E Main St Avon Park, Florida 33825- 3945 City of Avon Park WWTP US Highway 27 S Avon Park, FL 33825- | | | PERMIT NUMBER: LIMIT: CLASS SIZE: MONITORING GROUP NUMBER: MONITORING GROUP DESCRIPTION: RE-SUBMITTED DMR: | | | FLA014313-016-DW1P | | | | | |
|--|---|----------|---------------------|---|----------------|-------------------|---|-------------------|-------|----------------------|--------------------------|---------------------|
| FACILITY: LOCATION: | | | | | | | Interim REP N/A PRO R-001 Eight percolation ponds, with Influent | | | ORT FI IGRAM t | REQUENCY: : | Monthly Domestic |
| COUNTY: OFFICE: | Highlands South District | | | MONITORI | NG PERIOD | From: | | | То: | | | |
| Parameter | | Quantity | or Loading | Units | (| Quality or Con | centratio | n | Units | No. Ex. | Frequency of Analysis | Sample Type |
| Flow | Sample Measurement | | | | | | | | | | | |
| PARM Code 50050 Y Mon. Site No. FLW-1 | Permit Requirement | | 1.85 (An.Avg.) | MGD | | | | | | | Continuous | Flow Totalizer |
| Flow | Sample Measurement | | | | | | | | | | | |
| PARM Code 50050 1 Mon. Site No. FLW-1 | Permit Requirement | | Report (Mo.Avg.) | MGD | | | | | | | Continuous | Flow Totalizer |
| BOD, Carbonaceous 5 day, 20 | C Sample Measurement | | | | | | | | | | | |
| PARM Code 80082 Y Mon. Site No. EFA-1 | Permit Requirement | | | | | 20.0 (An.Avs | g.) | | mg/L | | Weekly | 8-hr FPC |
| BOD, Carbonaceous 5 day, 20 | C Sample Measurement | | | | | | | | | | | |
| PARM Code 80082 A Mon. Site No. EFA-1 | Permit Requirement | | | | 60.0 (Max.) | 45.0 (Max.Wk./ | Avg.) | 30.0 (Mo.Avg.) | mg/L | | Weekly | 8-hr FPC |
| Solids, Total Suspended | Sample Measurement | | | | | | | | | | | |
| PARM Code 00530 Y Mon. Site No. EFA-1 | Permit Requirement | | | | | 20.0 (An.Avs | g.) | | mg/L | | Weekly | 8-hr FPC |
| Solids, Total Suspended | Sample Measurement | | | | | | | | | | | |
| PARM Code 00530 A Mon. Site No. EFA-1 | Permit Requirement | | | | 60.0 (Max.) | 45.0 (Max.Wk./ | Avg.) | 30.0 (Mo.Avg.) | mg/L | | Weekly | 8-hr FPC |

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.

| NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | TELEPHONE NO | DATE (mm/dd/yyyy) |
|---|--|--------------|-------------------|
| | | | |
| | | | |

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

R-001

FACILITY: City of Avon Park WWTP

MONITORING GROUP NUMBER: PERMIT NUMBER: FLA014313-016-DW1P

MONITORING PERIOD From: _____ To: _____

| Parameter | | Quantity or | Loading | Units | Quality or Concentration | | | Units | No. Ex. | Frequency of Analysis | Sample Type |
|--|-----------------------|-------------|---------|-------|--------------------------|------------------|---------------------------------------|---------|------------|--------------------------|-------------|
| Coliform, Fecal | Sample Measurement | | | | | | | | | | |
| PARM Code 74055 Y Mon. Site No. EFA-1 | Permit Requirement | | | | | 200 (An.Avg.) | | #/100mL | | Weekly | Grab |
| Coliform, Fecal | Sample Measurement | | | | | | | | | | |
| PARM Code 74055 A Mon. Site No. EFA-1 | Permit Requirement | | | | 800 (Max.) | 400 (90th %) | 200 (Mo.Geo.Mn.) | #/100mL | | Weekly | Grab |
| pН | Sample Measurement | | | | | | | | | | |
| PARM Code 00400 A Mon. Site No. EFA-1 | Permit Requirement | | | | 6.0 (Min.) | | 8.5 (Max.) | s.u. | | Continuous | Meter |
| Chlorine, Total Residual (For Disinfection) | Sample Measurement | | | | | | , , , , , , , , , , , , , , , , , , , | | | | |
| PARM Code 50060 A Mon. Site No. EFA-1 | Permit Requirement | | | | 0.5 (Min.) | | | mg/L | | Continuous | Meter |
| Nitrogen, Nitrate, Total (as N) | Sample Measurement | | | | X | | | | | | |
| PARM Code 00620 A Mon. Site No. EFA-1 | Permit Requirement | | | | | | 12.0 (Max.) | mg/L | | Weekly | 8-hr FPC |
| Nitrogen, Total | Sample Measurement | | | | | | | | | | |
| PARM Code 00600 P Mon. Site No. EFA-1 | Permit Requirement | | | | | | Report (Max.) | mg/L | | Monthly | Grab |
| Phosphorus, Total (as P) | Sample Measurement | | | | | | | | | | |
| PARM Code 00665 P Mon. Site No. EFA-1 | Permit Requirement | | | | | | Report (Max.) | mg/L | | Monthly | Grab |
| Percent Capacity, (TMADF/Permitted Capacity) x 100 | Sample Measurement | | | | | | | | | | |
| PARM Code 00180 P Mon. Site No. CAL-1 | Permit Requirement | | | | | | Report (Mo.Avg.) | percent | | Monthly | Calculated |
| BOD, Carbonaceous 5 day, 20C (Influent) | Sample Measurement | | | | | | | | | | |
| PARM Code 80082 G Mon. Site No. INF-1 | Permit Requirement | | | | | | Report (Max.) | mg/L | | Weekly | 8-hr FPC |
| Solids, Total Suspended (Influent) | Sample Measurement | | | | | | | | | | |
| PARM Code 00530 G Mon. Site No. INF-1 | Permit Requirement | | | | | | Report (Max.) | mg/L | | Weekly | 8-hr FPC |

| When Completed submit this report to: http://www.fldepportal.com/go/submit- | report/ |
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|---|---------|

| PERMITTEE NAME: 0 | City of Avon Park | | PERMIT NUMBER: | | | FLA014313-016-DW1P | | | | | | |
|--|---|-----------|---------------------|-------------------------------------|--|--------------------|------------------|-------------------|--------------|------------|--------------------------|----------------|
| MAILING ADDRESS: I | Avon Park, Florida 338 | 825- 3945 | | LIMIT: CLASS SIZE | - . | | Final N/A | | REI | PORT FI | REQUENCY: | Monthly |
| FACILITY: C LOCATION: U | City of Avon Park WW JS Highway 27 S Avon Park, FL 33825- | 'TP | | MONITORII MONITORII RE-SUBMIT | NG GROUP NUM NG GROUP DESC TTED DMR: | BER: CRIPTION: | R-001 Eight p | ercolation ponds, | with Influer | it | | Domestic |
| COUNTY: H OFFICE: S | Highlands South District | | | MONITORII | NG PERIOD | From: | | | То: | | | |
| Parameter | | Quantity | or Loading | Units | (| Quality or Cond | centratio | n | Units | No. Ex. | Frequency of Analysis | Sample Type |
| Flow | Sample Measurement | | | | | | | | | | | |
| PARM Code 50050 Y Mon. Site No. FLW-1 | Permit Requirement | | 1.85 (An.Avg.) | MGD | | | | | | | Continuous | Flow Totalizer |
| Flow | Sample Measurement | | | | | | | | | | | |
| PARM Code 50050 1 Mon. Site No. FLW-1 | Permit Requirement | | Report (Mo.Avg.) | MGD | | | | | | | Continuous | Flow Totalizer |
| BOD, Carbonaceous 5 day, 200 | C Sample Measurement | | | | | | | | | | | |
| PARM Code 80082 Y Mon. Site No. EFA-1 | Permit Requirement | | | | | 20.0 (An.Avg | g.) | | mg/L | | Weekly | 8-hr FPC |
| BOD, Carbonaceous 5 day, 200 | C Sample Measurement | | | | | | | | | | | |
| PARM Code 80082 A Mon. Site No. EFA-1 | Permit Requirement | | | | 60.0 (Max.) | 45.0 (Max.Wk.4 | Avg.) | 30.0 (Mo.Avg.) | mg/L | | Weekly | 8-hr FPC |
| Solids, Total Suspended | Sample Measurement | | | | , , , , , , , , , , , , , , , , , | | | | | | | |
| PARM Code 00530 Y Mon. Site No. EFA-1 | Permit Requirement | | | | | 20.0 (An.Avg | g.) | | mg/L | | Weekly | 8-hr FPC |
| Solids, Total Suspended | Sample Measurement | | | | | | | | | | | |
| PARM Code 00530 A Mon. Site No. EFA-1 | Permit Requirement | | | | 60.0 (Max.) | 45.0 (Max.Wk.4 | Avg.) | 30.0 (Mo.Avg.) | mg/L | | Weekly | 8-hr FPC |

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.

| NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | TELEPHONE NO | DATE (mm/dd/yyyy) |
|---|--|--------------|-------------------|
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COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

R-001

FACILITY: City of Avon Park WWTP

MONITORING GROUP NUMBER: PERMIT NUMBER: FLA014313-016-DW1P

То: _____

MONITORING PERIOD From: _____

| Parameter | | Quantity of | or Loading | Units | Q | uality or Concentrat | ion | Units | No. Ex. | Frequency of Analysis | Sample Type |
|--|-----------------------|-------------|------------|-------|---------------|----------------------|---------------------|---------|------------|--------------------------|-------------|
| Coliform, Fecal | Sample Measurement | | | | | | | | | | |
| PARM Code 74055 Y Mon. Site No. EFA-1 | Permit Requirement | | | | | 200 (An.Avg.) | | #/100mL | | Weekly | Grab |
| Coliform, Fecal | Sample Measurement | | | | | | | | | | |
| PARM Code 74055 A Mon. Site No. EFA-1 | Permit Requirement | | | | 800 (Max.) | 400 (90th %) | 200 (Mo.Geo.Mn.) | #/100mL | | Weekly | Grab |
| рН | Sample Measurement | | | | | | | | | | |
| PARM Code 00400 A Mon. Site No. EFA-1 | Permit Requirement | | | | 6.0 (Min.) | | 8.5 (Max.) | s.u. | | Continuous | Meter |
| Chlorine, Total Residual (For Disinfection) | Sample Measurement | | | | | | | | | | |
| PARM Code 50060 A Mon. Site No. EFA-1 | Permit Requirement | | | | 0.5 (Min.) | | | mg/L | | Continuous | Meter |
| Nitrogen, Nitrate, Total (as N) | Sample Measurement | | | | | | | | | | |
| PARM Code 00620 A Mon. Site No. EFA-1 | Permit Requirement | | | | | | 12.0 (Max.) | mg/L | | Weekly | 8-hr FPC |
| Percent Capacity, (TMADF/Permitted Capacity) x 100 | Sample Measurement | | | | | | | | | | |
| PARM Code 00180 P Mon. Site No. CAL-1 | Permit Requirement | | | | | | Report (Mo.Avg.) | percent | | Monthly | Calculated |
| BOD, Carbonaceous 5 day, 20C (Influent) | Sample Measurement | | | | | | | | | | |
| PARM Code 80082 G Mon. Site No. INF-1 | Permit Requirement | | | | | | Report (Max.) | mg/L | | Weekly | 8-hr FPC |
| Solids, Total Suspended (Influent) | Sample Measurement | | | | | | | | | | |
| PARM Code 00530 G Mon. Site No. INF-1 | Permit Requirement | | | | | | Report (Max.) | mg/L | | Weekly | 8-hr FPC |
| | | | | | | | | | | | |
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When Completed submit this report to: http://www.fldepportal.com/go/submit-report/

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|--------------------------|----------------------|-------------|------------|--------------------------------|---------------------|----------|--|---------------|-------|--------|--------------|-------------|
| PERMITTEE NAME: | City of Avon Park | | | PERMIT NU | JMBER: | | FLA01 | 4313-016-DW1P | | | | |
| MAILING ADDRESS: | 110 E Main St | 2025 2045 | | | | | F : 1 | | DED | | | 0 1 |
| | Avon Park, Florida 3 | 3825-3945 | | LIMIT: CLASS SIZI | E. | | Final N/A | | REP | GRA FR | REQUENCY: | Quarterly |
| FACILITY: | City of Avon Park W | WTP | | MONITORI | L. NG GROUP NUME | BER: | R-001 | | | | Domestic | |
| LOCATION: | US Highway 27 S | | | MONITORI | NG GROUP DESCI | RIPTION: | Eight percolation ponds, with Influent | | | | | |
| | Avon Park, FL 33825 | - | | RE-SUBMI | ITED DMR: | | | | | | | |
| COUNTY | Highlands | | | NO DISCHA MONITORI | ARGE FROM SITE: | From | | | To | | | |
| OFFICE: | South District | | | MONTORI | NOTERIOD | FIOIII. | | | 10. | | | |
| | South District | | | | | | | | | | | |
| Parameter | | Quantity of | or Loading | Units Quality or Concentration | | | | | Units | No. | Frequency of | Sample Type |
| NT: | | | | | | 1 | | | | Ex. | Analysis | |
| Nitrogen, I otal | Sample | | | | | | | | | | | |
| PARM Code 00600 P | Permit | | | | | | | Report | mg/L | | Ouarterly | Grab |
| Mon. Site No. EFA-1 | Requirement | | | | | | | (Max.) | _ | | | |
| Phosphorus, Total (as P) | Sample | | | | | | | | | | | |
| | Measurement | | | | | | | D | 17 | | <u> </u> | <u> </u> |
| PARM Code 00665 P | Permit | | | | | | | (Max) | mg/L | | Quarterly | Grab |
| Woll. She No. EFA-1 | Kequitement | | | | | | | (Widx.) | | | | |
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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.

| NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | TELEPHONE NO | DATE (mm/dd/yyyy) |
|---|--|--------------|-------------------|
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COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

When Completed submit this report to: <u>http://www.fldepportal.com/go/submit-report/</u>

| PERMITTEE NAME: | RMITTEE NAME:City of Avon ParkNILING ADDRESS:110 E Main St | | | | PERMIT NU | JMBER: | | FLA014313-016-DW1P | | | | | |
|--|--|---|------------------------|----------------------|---|-----------|---------------|---|--|-------|------------------|--------------------------|---------------------|
| FACILITY: LOCATION: | Avon P City of US Hig Avon P | Park, Florida 3 Avon Park W hway 27 S Park, FL 33825 | 3825- 3945 WTP - | | LIMIT: CLASS SIZE: MONITORING GROUP NUMBER: MONITORING GROUP DESCRIPTION: RE-SUBMITTED DMR: | | | Final N/A RMP-Q Biosolids Quantity | | | PORT FI OGRAM | REQUENCY: : | Monthly Domestic |
| COUNTY: OFFICE: | Highlar South E | nds District | | | MONITORI | NG PERIOD | From: | To: | | | | | |
| Parameter | er Quantity or Loading | | | | Units | Q | uality or Coi | ncentration | | Units | No. Ex. | Frequency of Analysis | Sample Type |
| Biosolids Quantity (Received | i) S N | Sample Measurement | | | | | | | | | | | |
| PARM Code B0002 + Mon. Site No. RMP-2 | H F | Permit Requirement | | Report (Mo.Total) | dry tons | | | | | | | Monthly | Calculated |
| Biosolids Quantity (Landfille | ed) S | Sample Measurement | | | | | | | | | | | |
| PARM Code B0008 + Mon. Site No. RMP-1 | H F | Permit Requirement | | Report (Mo.Total) | dry tons | | | | | | | Monthly | Calculated |
| Biosolids Quantity (Transferr | red) S | Sample Measurement | | | | | | | | | | | |
| PARM Code B0007 + Mon. Site No. RMP-1 | F F | Permit Requirement | | Report (Mo.Total) | dry tons | | | | | | | Monthly | Calculated |
| | _ | | | | | | | | | | | | |
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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.

| NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | TELEPHONE NO | DATE (mm/dd/yyyy) |
|---|--|--------------|-------------------|
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COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

When Completed submit this report to: http://www.fldepportal.com/go/submit-report/

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|--|--|------------------------|------------|---|--|---|-------------------------------|----------------------------|---------------------|----------------------|
| PERMITTEE NAME: | City of Avon Park | | | PERMIT NUMI | BER: | FLA014313-016-DW1P | | | | |
| FACILITY: LOCATION: COUNTY: OFFICE: | Avon Park, Florida 3 City of Avon Park W US Highway 27 S Avon Park, FL 33825 Highlands South District | 3825- 3945 WTP - | | LIMIT: CLASS SIZE: MONITORING MONITORING RE-SUBMITTE NO DISCHARC MONITORING MONITORING | GROUP NUMBER: GROUP DESCRIPTION: D DMR: GE FROM SITE: NOT REQUIRED:* PERIOD From: | Final N/A RWS-A Annual Reclaimed Wate: | REP PRO r or Effluent . | ORT FF GRAM Analysis | REQUENCY: : s | Annually Domestic |
| Parameter | | Quantity | or Loading | Units | Quality or Co | oncentration | Units | No. | Frequency of | Sample Type |
| Antimony, Total Recoverable | e Sample | | | | | | | EX. | Analysis | |
| $(GWS = 6)^{**}$ | Measurement | | | | | | | | | |
| PARM Code 01268 P Mon. Site No. RWS-A | Permit Requirement | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Arsenic, Total Recoverable (GWS = 10) | Sample Measurement | | | | | | | | | |
| PARM Code 00978 P Mon. Site No. RWS-A | Permit Requirement | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Barium, Total Recoverable $(GWS = 2,000)$ | Sample Measurement | | | | | | | | | |
| PARM Code 01009 P Mon. Site No. RWS-A | Permit Requirement | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Beryllium, Total Recoverable (GWS = 4) | e Sample Measurement | | | | | | | | | |
| PARM Code 00998 P Mon. Site No. RWS-A | Permit Requirement | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Cadmium, Total Recoverable (GWS = 5) | e Sample Measurement | | | | | | | | | |
| PARM Code 01113 P Mon. Site No. RWS-A | Permit Requirement | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Chromium, Total Recoverab (GWS =100) | le Sample Measurement | | | | | | | | | |
| PARM Code 01118 P Mon. Site No. RWS-A | Permit Requirement | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |

*THE "MONITORING NOT REQUIRED" CHECKBOX SHOULD BE SELECTED WHEN A CERTIFICATION STATEMENT IN ACCORDANCE WITH SUBSECTION 62-600.680(2), F.A.C., IS SUBMITTED WITH THIS DMR. SEE CERTIFICATION STATEMENT IN COMMENTS SECTION BELOW. **GROUND WATER STANDARD (GWS) FOR REFERENCE AND REVIEW ONLY.

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.

| NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | TELEPHONE NO | DATE (mm/dd/yyyy) |
|---|--|--------------|-------------------|
| | | | |

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

□ NO NEW NON-DOMESTIC WASTEWATER DISCHARGERS HAVE BEEN ADDED TO THE COLLECTION SYSTEM SINCE THE LAST RECLAIMED WATER OR EFFLUENT ANALYSIS WAS CONDUCTED. SIGN AND DATE:

FACILITY: City of Avon Park WWTP MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

MONITORING PERIOD

From: _____ To: _____

RWS-A

| Parameter | | Quantity of | r Loading | Units | Q | uality or Concentratio | on | Units | No. Ex. | Frequency of Analysis | Sample Type |
|--|-----------------------|-------------|-----------|-------|---|------------------------|------------------|-------|------------|--------------------------|-------------|
| Cyanide, Free (amen. to chlorination)(GWS = 200) | Sample Measurement | | | | | | | | | | |
| PARM Code 00722 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| Fluoride, Total (as F) (GWS = $4.0/2.0$) | Sample Measurement | | | | | | | | | | |
| PARM Code 00951 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Lead, Total Recoverable (GWS = 15) | Sample Measurement | | | | | | | | | | |
| PARM Code 01114 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Mercury, Total Recoverable (GWS = 2) | Sample Measurement | | | | | | | | | | |
| PARM Code 71901 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Nickel, Total Recoverable (GWS = 100) | Sample Measurement | | | | | | | | | | |
| PARM Code 01074 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Nitrogen, Nitrate, Total (as N) (GWS = 10) | Sample Measurement | | | | | | | | | | |
| PARM Code 00620 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Nitrogen, Nitrite, Total (as N) (GWS = 1) | Sample Measurement | | | | | | | | | | |
| PARM Code 00615 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Nitrite plus Nitrate, Total 1 det. (as N)(GWS = 10) | Sample Measurement | | | | | | | | | | |
| PARM Code 00630 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Selenium, Total Recoverable (GWS =50) | Sample Measurement | | | | | | | | | | |
| PARM Code 00981 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Sodium, Total Recoverable (GWS = 160) | Sample Measurement | | | | | | | | | | |
| PARM Code 00923 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |

FACILITY: City of Avon Park WWTP MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

MONITORING PERIOD

From: _____ To: _____

RWS-A

| Parameter | | Quantity or I | loading | Units | Q | uality or Concentration | on | Units | No. Ex. | Frequency of Analysis | Sample Type |
|---|-----------------------|---------------|---------|-------|---|-------------------------|------------------|-------|------------|--------------------------|-------------|
| Thallium, Total Recoverable (GWS = 2) | Sample Measurement | | | | | | | | | | |
| PARM Code 00982 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| 1,1-dichloroethylene (GWS = 7) | Sample Measurement | | | | | | | | | | |
| PARM Code 34501 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| 1,1,1-trichloroethane (GWS = 200) | Sample Measurement | | | | | | | | | | |
| PARM Code 34506 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| 1,1,2-trichloroethane (GWS = 5) | Sample Measurement | | | | | | | | | | |
| PARM Code 34511 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| 1,2-dichloroethane (GWS = 3) | Sample Measurement | | | | | | _ | | | | |
| Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| $\begin{array}{l} 1,2-\text{dichloropropane} \\ (\text{GWS}=5) \end{array}$ | Sample Measurement | | | | | | | σ | | A 11 | <u> </u> |
| Mon. Site No. RWS-A | Requirement | | | | | | (Max.) | ug/L | | Annually | Grab |
| (GWS = 70) | Measurement | | | | | | D | /T | | A 11 | 24.1 EBC |
| Mon. Site No. RWS-A | Requirement | | | | | | (Max.) | ug/L | | Annually | 24-nr FPC |
| (GWS = 1) | Measurement | | | | | | D | /T | | A 11 | 0.1 |
| Mon. Site No. RWS-A | Requirement | | | | | | (Max.) | ug/L | | Annually | Grab |
| (GWS = 3) | Measurement | | | | | | | /T | | A 11 | 0.1 |
| Mon. Site No. RWS-A | Requirement | | | | | | (Max.) | ug/L | | Annually | Grab |
| Cis-1,2-dichloroethene $(GWS = 70)$ | Sample Measurement | | | | | | | /T | | 4 11 | |
| Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |

RWS-A

From:

FACILITY: City of Avon Park WWTP

Mon. Site No. RWS-A

MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

To:

Report

(Max.)

MONITORING PERIOD

| Parameter | | Quantity or Loading | Units | Quality or Concer | ntration | Units | No. Ex. | Frequency of Analysis | Sample Type |
|----------------------------|-------------|---------------------|-------|-------------------|----------|-------|------------|---------------------------------------|-------------|
| Dichloromethane (methylene | Sample | | | | | | | , , , , , , , , , , , , , , , , , , , | |
| chloride)(GWS = 5) | Measurement | | | | | | | | |
| PARM Code 03821 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | 2 | |
| Ethylbenzene | Sample | | | | | | | | |
| (GWS = 700) | Measurement | | | | | | | | |
| PARM Code 34371 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | - | |
| Monochlorobenzene | Sample | | | | | | | | |
| (GWS = 100) | Measurement | | | | | | | | |
| PARM Code 34031 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | - | |
| 1,2-dichlorobenzene | Sample | | | | | | | | |
| (GWS = 600) | Measurement | | | | | | | | |
| PARM Code 34536 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | | |
| 1,4-dichlorobenzene | Sample | | | | | | | | |
| (GWS = 75) | Measurement | | | | | | | | |
| PARM Code 34571 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | | |
| Styrene, Total | Sample | | | | | | | | |
| (GWS = 100) | Measurement | | | | | | | | |
| PARM Code 77128 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | | |
| Tetrachloroethylene | Sample | | | | | | | | |
| (GWS = 3) | Measurement | | | | | | | | |
| PARM Code 34475 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | | |
| Toluene | Sample | | | | | | | | |
| (GWS = 1,000) | Measurement | | | | | | | | |
| PARM Code 34010 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | | |
| 1,2-trans-dichloroethylene | Sample | | | | | | | | |
| (GWS = 100) | Measurement | | | | | | | | |
| PARM Code 34546 P | Permit | | | | Report | ug/L | | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | | (Max.) | | | | |
| Trichloroethylene | Sample | | | | | | | | |
| (GWS = 3) | Measurement | | | | | | | | |
| PARM Code 39180 P | Permit | | | | Report | ug/L | | Annually | Grab |

Requirement

Annually

RWS-A

FACILITY: City of Avon Park WWTP

Sample

Parameter

Vinyl chloride

MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

No.

Ex.

Frequency of

Analysis

Sample Type

| | | MONITORI | NG PERIOD | Fr | rom: | То: | |
|-------------|---------|----------|-----------|----|-----------------------|------------------|-------|
| Quantity or | Loading | Units | | Q | uality or Concentrati | on | Units |
| | | | | | | | |
| | | | | | | Report (Max.) | ug/L |
| | | | | | | | |
| | | | | | | Report | ug/L |

| (GWS = 1) | Measurement | | | | | | |
|--------------------------------|-------------|--|--|--------|------|----------|-----------|
| PARM Code 39175 P | Permit | | | Report | ug/L | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Xylenes | Sample | | | | | | |
| (GWS = 10,000) | Measurement | | | | | | |
| PARM Code 81551 P | Permit | | | Report | ug/L | Annually | Grab |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | · | |
| 2,3,7,8-tetrachlorodibenzo-p- | Sample | | | | | | |
| $dioxin(GWS = 3x10^{-5})$ | Measurement | | | | | | |
| PARM Code 34675 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| 2,4-dichlorophenoxyacetic acid | Sample | | | | | | |
| (GWS = 70) | Measurement | | | | | | |
| PARM Code 39730 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Silvex | Sample | | | | | | |
| (GWS = 50) | Measurement | | | | | | |
| PARM Code 39760 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Alachlor | Sample | | | | | | |
| (GWS = 2) | Measurement | | | | | | |
| PARM Code 39161 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Atrazine | Sample | | | | | | |
| (GWS = 3) | Measurement | | | | | | |
| PARM Code 39033 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Benzo(a)pyrene | Sample | | | | | | |
| (GWS = 0.2) | Measurement | | | | | | |
| PARM Code 34247 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Carbofuran | Sample | | | | | | |
| (GWS = 40) | Measurement | | | | | | |
| PARM Code 81405 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Chlordane (tech mix. and | Sample | | | | | | |
| metabolites)(GWS = 2) | Measurement | | | | | | |
| PARM Code 39350 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |

FACILITY: City of Avon Park WWTP MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

MONITORING PERIOD

From: _____ To: _____

RWS-A

| Parameter | | Quantity c | or Loading | Units | Q | uality or Concentrati | on | Units | No. Ex. | Frequency of Analysis | Sample Type |
|--|-----------------------|------------|------------|-------|---|-----------------------|------------------|-------|------------|--------------------------|-------------|
| Dalapon (GWS = 200) | Sample Measurement | | | | | | | | | | |
| PARM Code 38432 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Bis(2-ethylhexyl)adipate (GWS = 400) | Sample Measurement | | | | | | | | | | |
| PARM Code 77903 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Bis (2-ethylhexyl) phthalate (GWS = 6) | Sample Measurement | | | | | | | | | | |
| PARM Code 39100 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Dibromochloropropane (DBCP) (GWS = 0.2) | Sample Measurement | | | | | | | | | | |
| PARM Code 82625 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| Dinoseb (GWS = 7) | Sample Measurement | | | | | | | | | | |
| PARM Code 30191 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Diquat (GWS = 20) | Sample Measurement | | | | | | | | | | |
| PARM Code 04443 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Endothall (GWS = 100) | Sample Measurement | | | | | | | | | | |
| PARM Code 38926 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Endrin (GWS = 2) | Sample Measurement | | | | | | | | | | |
| PARM Code 39390 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Ethylene dibromide (1,2- dibromoethane)(GWS = 0.02) | Sample Measurement | | | | | | | | | | |
| PARM Code 77651 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | Grab |
| Glyphosate (GWS = 0.7) | Sample Measurement | | | | | | | | | | |
| PARM Code 79743 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |

RWS-A

FACILITY: City of Avon Park WWTP

Parameter

Heptachlor

(GWS = 0.4)

PARM Code 39410 P

Mon. Site No. RWS-A

Heptachlor epoxide

MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

Frequency of

Analysis

Annually

Sample Type

24-hr FPC

MONITORING PERIOD

To: From: Quantity or Loading Units Quality or Concentration Units No. Ex. Sample Measurement ug/L Permit Report Requirement (Max.) Sample Measurement

| $(GWS = 0.2)^{1}$ | Measurement | | | | | | |
|---------------------------|-------------|--|------|--------|------|----------|-----------|
| PARM Code 39420 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | • | |
| Hexachlorobenzene | Sample | | | | | | |
| (GWS = 1) | Measurement | | | | | | |
| PARM Code 39700 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Hexachlorocyclopentadiene | Sample | | | | | | |
| (GWS = 50) | Measurement | | | | | | |
| PARM Code 34386 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Gamma BHC (Lindane) | Sample | | | | | | |
| (GWS = 0.2) | Measurement | | | | | | |
| PARM Code 39782 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Methoxychlor | Sample | | | | | | |
| (GWS = 40) | Measurement | | | | | | |
| PARM Code 39480 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Oxamyl (vydate) | Sample | | | | | | |
| (GWS = 200) | Measurement | | | | | | |
| PARM Code 38865 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Pentachlorophenol | Sample | | | | | | |
| (GWS = 1) | Measurement | | | | | | |
| PARM Code 39032 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Picloram | Sample | | | | | | |
| (GWS = 500) | Measurement | | | | | | |
| PARM Code 39720 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |
| Polychlorinated Biphenyls | Sample | | | | | | |
| (PCBs)(GWS = 0.5) | Measurement | | | | | | |
| PARM Code 39516 P | Permit | | | Report | ug/L | Annually | 24-hr FPC |
| Mon. Site No. RWS-A | Requirement | | | (Max.) | | | |

FACILITY: City of Avon Park WWTP MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

То:

MONITORING PERIOD

From:

RWS-A

| Parameter | | Quantity or Loading | Units | Quality or Concentration | Units | No. Ex. | Frequency of Analysis | Sample Type |
|--|-----------------------|---------------------|-------|--------------------------|-------|------------|--------------------------|-------------|
| Simazine (GWS = 4) | Sample Measurement | | | | | | | |
| PARM Code 39055 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Toxaphene (GWS = 3) | Sample Measurement | | | | | | | |
| PARM Code 39400 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Trihalomethane, Total by summation(GWS = 0.080) | Sample Measurement | | | | | | | |
| PARM Code 82080 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | mg/L | | Annually | Grab |
| Radium 226 + Radium 228, Total (GWS = 5) | Sample Measurement | | | | | | | |
| PARM Code 11503 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | pCi/L | | Annually | 24-hr FPC |
| Alpha, Gross Particle Activity (GWS = 15) | Sample Measurement | | | | | | | |
| PARM Code 80045 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | pCi/L | | Annually | 24-hr FPC |
| Aluminum, Total Recoverable (GWS = 0.2) | Sample Measurement | | | | | | | |
| PARM Code 01104 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Chloride (as Cl) (GWS = 250) | Sample Measurement | | | | ~ | | | |
| PARM Code 00940 P Mon. Site No. RWS-A | Permit Requirement | | | Keport (Max.) | mg/L | | Annually | 24-hr FPC |
| From, Total Recoverable $(GWS = 0.3)$ | Sample Measurement | | | | 7 | | | 0.1.1 EDG |
| Mon. Site No. RWS-A | Permit Requirement | | | Keport (Max.) | mg/L | | Annually | 24-hr FPC |
| Copper, Total Recoverable (GWS = 1,000) | Sample Measurement | | | | | | | |
| PARM Code 01119 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Manganese, Total Recoverable (GWS = 50) | Sample Measurement | | | | ~ | | | |
| PARM Code 11123 P Mon. Site No. RWS-A | Permit Requirement | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |

FACILITY: City of Avon Park WWTP

MONITORING GROUP NUMBER:

PERMIT NUMBER: FLA014313-016-DW1P

MONITORING PERIOD

From: _____ To: _____

RWS-A

| Parameter | | Quantity o | r Loading | Units | Qı | ality or Concentrati | on | Units | No. Ex. | Frequency of Analysis | Sample Type |
|--|-----------------------|------------|-----------|-------|----|----------------------|------------------|-------|------------|--------------------------|-------------|
| Silver, Total Recoverable (GWS = 100) | Sample Measurement | | | | | | | | | | |
| PARM Code 01079 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| Sulfate, Total (GWS = 250) | Sample Measurement | | | | | | | | | | |
| PARM Code 00945 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Zinc, Total Recoverable (GWS = 5,000) | Sample Measurement | | | | | | | | | | |
| PARM Code 01094 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | ug/L | | Annually | 24-hr FPC |
| pH (GWS = 6.5-8.5) | Sample Measurement | | | | | | | | | | |
| PARM Code 00400 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | s.u. | | Annually | Grab |
| Solids, Total Dissolved (TDS) (GWS = 500) | Sample Measurement | | | | | | | | | | |
| PARM Code 70295 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| Foaming Agents (GWS = 0.5) | Sample Measurement | | | | | | | | | | |
| PARM Code 01288 P Mon. Site No. RWS-A | Permit Requirement | | | | | | Report (Max.) | mg/L | | Annually | 24-hr FPC |
| | | | | | | | | | | | |
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| DAILY SAMPLE F | RESULTS - PART B |
|----------------|-------------------------|
|----------------|-------------------------|

То: ____

Permit Number: Monitoring Period FLA014313-016-DW1P

From: ____

Facility: City of Avon Park WWTP

| í | DOD | DOD | C11 . | 0.110 | 51 | N . | 2.1 | D1 1 | | | ** |
|------------|---------------------|---------------------|---------------|--------------------|-------|-----------------------------|--------------------|-----------------------------|----------------------------|----------------------------|------------|
| | BOD, Carbonaceou | BOD, Carbonaceou | Total | Coliform, Fecal | Flow | Nitrogen, Nitrate, Total | Nitrogen, Total | Phosphorus, Total (as P) | Solids, Total Suspended | Solids, Total Suspended | pH s.u. |
| | s 5 day, 20C | s 5 day, 20C | Residual (For | #/100mL | meb | (as N) | mg/L | mg/L | mg/L | (Influent) | 5141 |
| | mg/L | (Influent) | Disinfection) | | | mg/L | | | | mg/L | |
| | | | ing 2 | | | | | | | | |
| Code | 80082 | 80082 | 50060 | 74055 | 50050 | 00620 | 00600 | 00665 | 00530 | 00530 | 00400 |
| Mon. Site | EFA-1 | INF-1 | EFA-1 | EFA-1 | FLW-I | EFA-1 | EFA-1 | EFA-1 | EFA-1 | INF-1 | EFA-1 |
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| Mo. Avg. | | | | | | | | | | | |
| PLANTS | TAFFING | | | | | | | | | | |
| Day Shift | Operator | Class: | | Certificate No | | Na | ame: | | | | |
| Evening S | hift Operator | Class: | | Certificate No | | Na | ame: | | | | |
| Night Shif | ft Operator | Class: | | Certificate No | | Na | ame: | | | | |

Name:

Class: Certificate No:

Lead Operator

GROUNDWATER MONITORING REPORT - PART D

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWC-20805 Compliance MONITORING WELL #4 | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|--|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| | | | | | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | 500 | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | 0.010 | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | 250 | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | 0.005 | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | 0.1 | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | 0.015 | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | 4 | #/100mL | Grab | Quarterly | | | | |
| pH | 00400 | | 6.5 - 8.5 | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | 250 | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total* | 00600 | | 3 | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P)* | 00665 | | 1 | mg/L | Grab | Quarterly | | | | |

*TN and TP shall be monitored monthly (report only) until the expiration of Administrative Order AO-014313-016 on November 30, 2023.

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

Γ TELEPHONE NO DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):
| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWC-151292 Compliance NE corner compliance well | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|--|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| | | | | | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | 500 | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | 0.010 | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | 250 | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | 0.005 | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | 0.1 | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | 0.015 | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | 4 | #/100mL | Grab | Quarterly | | | | |
| рН | 00400 | | 6.5 - 8.5 | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | 250 | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total* | 00600 | | 3 | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P)* | 00665 | | 1 | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWC-20806 Compliance MONITORING WELL #3 | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|--|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| | | | | | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | 500 | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | 0.010 | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | 250 | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | 0.005 | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | 0.1 | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | 0.015 | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | 4 | #/100mL | Grab | Quarterly | | | | |
| рН | 00400 | | 6.5 - 8.5 | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | 250 | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total* | 00600 | | 3 | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P)* | 00665 | | 1 | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWC-20807 Compliance MONITORING WELL #2 | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|--|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| | | | | | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | 500 | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | 0.010 | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | 250 | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | 0.005 | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | 0.1 | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | 0.015 | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | 4 | #/100mL | Grab | Quarterly | | | | |
| рН | 00400 | | 6.5 - 8.5 | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | 250 | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total* | 00600 | | 3 | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P)(| 00665 | | 1 | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWB-151297 Background Background well Northwest of North pond | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|---|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | Report | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | Report | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | Report | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | Report | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | Report | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | Report | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | Report | #/100mL | Grab | Quarterly | | | | |
| pH | 00400 | | Report | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | Report | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | Report | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | Report | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
 TELEPHONE NO
 DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Par FLA014313-016 Highlands | k WWTP -DW1P | | | Mo We De | onitoring Well ID: ell Type: scription: | MWI-151294 Intermediate Intermediate well | Report Frequency Program: | 7: Quarterly Domestic | |
|---|--|------------------|--------|-------|----------------|---|---|------------------------------|--------------------------|---------|
| Office: | South District | | | | Re | -submitted DMR: | | | | |
| Monitoring Perio | d | From: | To: | | Da | te Sample Obtained: | | | | |
| | | | | | Tir | ne Sample Obtained: | | | | |
| Was the well purg | ged before sampling? | YesNo | | | | | | | | |
| г | Doromater | PAPM Code Sample | Dermit | Unite | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling | Samples |

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | Report | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | Report | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | Report | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | Report | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | Report | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | Report | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | Report | #/100mL | Grab | Quarterly | | | | |
| pН | 00400 | | Report | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | Report | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | Report | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | Report | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTF FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWB-20808 Background MONITORING WELL #1 | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|--|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| | | | | | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | Report | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | Report | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | Report | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | Report | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | Report | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | Report | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | Report | #/100mL | Grab | Quarterly | | | | |
| рН | 00400 | | Report | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | Report | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | Report | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | Report | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWC-151293 Compliance SE corner complience well | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|--|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| | | | | | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|---|-------------|-----------------------|-----------------------|--------------|--------------|------------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | 500 | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | 0.010 | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | 250 | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | 0.005 | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | 0.1 | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | 0.015 | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | 4 | #/100mL | Grab | Quarterly | | | | |
| pH | 00400 | | 6.5 - 8.5 | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | 250 | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | 3 | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | 1 | mg/L | Grab | Quarterly | | | | |
| Nitrogen, Total Phosphorus, Total (as P) | 00600 00665 | | 3 | mg/L mg/L | Grab Grab | Quarterly Quarterly | | | | |

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TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWI-151295 Intermediate Intermediate well west of North pond | Report Frequency: Program: | Quarterly Domestic |
|---|---|--------|-----|---|---|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| Was the well purged be | fore sampling? | Yes No | | | | | |
| | | | | | | | |

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | Report | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | Report | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | Report | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | Report | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | Report | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | Report | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | Report | #/100mL | Grab | Quarterly | | | | |
| pH | 00400 | | Report | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | Report | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | Report | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | Report | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWI-151296 Intermediate Intermediate well West of South pond | Report Frequency: Program: | Quarterly Domestic |
|---|---|--------|-----|---|---|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |
| Was the well purged bef | fore sampling? | Yes No | | | | | |

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | Report | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | Report | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | Report | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | Report | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | Report | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | Report | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | Report | #/100mL | Grab | Quarterly | | | | |
| рН | 00400 | | Report | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | Report | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | Report | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | Report | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE NO DATE (mm/dd/yyyy)

| Facility Name: Permit Number: County: | City of Avon Park WWTP FLA014313-016-DW1P Highlands | | | Monitoring Well ID: Well Type: Description: | MWB-151298 Background Background well Southwest of South pond | Report Frequency: Program: | Quarterly Domestic |
|---|---|-------|-----|---|---|-------------------------------|-----------------------|
| Office: | South District | | | Re-submitted DMR: | | | |
| Monitoring Period | | From: | То: | Date Sample Obtained: | | | |
| | | | | Time Sample Obtained: | | | |

Was the well purged before sampling?

___Yes ___ No

| Parameter | PARM Code | Sample Measurement | Permit Requirement | Units | Sample Type | Frequency of Analysis | Detection Limits | Analysis Method | Sampling Equipment Used | Samples Filtered (L/F/N) |
|-------------------------------|-----------|-----------------------|-----------------------|---------|-------------|-----------------------|------------------|-----------------|----------------------------|--------------------------------|
| Water Level Relative to NGVD | 82545 | | Report | ft | Grab | Quarterly | | | | |
| Nitrogen, Nitrate, Dissolved | 00618 | | Report | mg/L | Grab | Quarterly | | | | |
| Solids, Total Dissolved (TDS) | 70295 | | Report | mg/L | Grab | Quarterly | | | | |
| Arsenic, Total Recoverable | 00978 | | Report | mg/L | Grab | Quarterly | | | | |
| Chloride (as Cl) | 00940 | | Report | mg/L | Grab | Quarterly | | | | |
| Cadmium, Total Recoverable | 01113 | | Report | mg/L | Grab | Quarterly | | | | |
| Chromium, Total Recoverable | 01118 | | Report | mg/L | Grab | Quarterly | | | | |
| Lead, Total Recoverable | 01114 | | Report | mg/L | Grab | Quarterly | | | | |
| Coliform, Fecal | 74055 | | Report | #/100mL | Grab | Quarterly | | | | |
| pH | 00400 | | Report | s.u. | In Situ | Quarterly | | | | |
| Sulfate, Total | 00945 | | Report | mg/L | Grab | Quarterly | | | | |
| Turbidity | 00070 | | Report | NTU | Grab | Quarterly | | | | |
| Nitrogen, Total | 00600 | | Report | mg/L | Grab | Quarterly | | | | |
| Phosphorus, Total (as P) | 00665 | | Report | mg/L | Grab | Quarterly | | | | |
| | | | | | | | | | | |

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.

 NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
 TELEPHONE NO
 DATE (mm/dd/yyyy)

INSTRUCTIONS FOR COMPLETING THE WASTEWATER DISCHARGE MONITORING REPORT

Read these instructions before completing the DMR. Hard copies and/or electronic copies of the required parts of the DMR were provided with the permit. All required information shall be completed in full and typed or printed in ink. A signed, original DMR shall be mailed to the address printed on the DMR by the 28th of the month following the monitoring period. Facilities who submit their DMR(s) electronically through eDMR do not need to submit a hardcopy DMR. The DMR shall not be submitted before the end of the monitoring period.

The DMR consists of three parts--A, B, and D--all of which may or may not be applicable to every facility. Facilities may have one or more Part A's for reporting effluent or reclaimed water data. All domestic wastewater facilities will have a Part B for reporting daily sample results. Part D is used for reporting ground water monitoring well data.

When results are not available, the following codes should be used on parts A and D of the DMR and an explanation provided where appropriate. Note: Codes used on Part B for raw data are different.

| CODE | DESCRIPTION/INSTRUCTIONS | CODE | DESCRIPTION/INSTRUCTIONS |
|------|--------------------------------------|------|---|
| ANC | Analysis not conducted. | NOD | No discharge from/to site. |
| DRY | Dry Well | OPS | Operations were shutdown so no sample could be taken. |
| FLD | Flood disaster. | OTH | Other. Please enter an explanation of why monitoring data were not available. |
| IFS | Insufficient flow for sampling. | SEF | Sampling equipment failure. |
| LS | Lost sample. | | |
| MNR | Monitoring not required this period. | | |

When reporting analytical results that fall below a laboratory's reported method detection limits or practical quantification limits, the following instructions should be used, unless indicated otherwise in the permit or on the DMR:

- 1. Results greater than or equal to the PQL shall be reported as the measured quantity.
- 2. Results less than the PQL and greater than or equal to the MDL shall be reported as the laboratory's MDL value. These values shall be deemed equal to the MDL when necessary to calculate an average for that parameter and when determining compliance with permit limits.
- 3. Results less than the MDL shall be reported by entering a less than sign ("<") followed by the laboratory's MDL value, e.g. < 0.001. A value of one-half the MDL or one-half the effluent limit, whichever is lower, shall be used for that sample when necessary to calculate an average for that parameter. Values less than the MDL are considered to demonstrate compliance with an effluent limitation.

PART A -DISCHARGE MONITORING REPORT (DMR)

Part A of the DMR is comprised of one or more sections, each having its own header information. Facility information is preprinted in the header as well as the monitoring group number, whether the limits and monitoring requirements are interim or final, and the required submittal frequency (e.g. monthly, annually, quarterly, etc.). Submit Part A based on the required reporting frequency in the header and the instructions shown in the permit. The following should be completed by the permittee or authorized representative:

Resubmitted DMR: Check this box if this DMR is being re-submitted because there was information missing from or information that needed correction on a previously submitted DMR. The information that is being revised should be clearly noted on the re-submitted DMR (e.g. highlight, circle, etc.)

No Discharge From Site: Check this box if no discharge occurs and, as a result, there are no data or codes to be entered for all of the parameters on the DMR for the entire monitoring group number; however, if the monitoring group includes other monitoring locations (e.g., influent sampling), the "NOD" code should be used to individually denote those parameters for which there was no discharge.

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.

Sample Measurement: Before filling in sample measurements in the table, check to see that the data collected correspond to the limit indicated on the DMR (i.e. interim or final) and that the data correspond to the monitoring group number in the header. Enter the data or calculated results for each parameter on this row in the non-shaded area above the limit. Be sure the result being entered corresponds to the appropriate statistical base code (e.g. annual average, monthly average, single sample maximum, etc.) and units. Data qualifier codes are not to be reported on Part A.

No. Ex.: Enter the number of sample measurements during the monitoring period that exceeded the permit limit for each parameter in the non-shaded area. If none, enter zero.

Frequency of Analysis: The shaded areas in this column contain the minimum number of times the measurement is required to be made according to the permit. Enter the actual number of times the measurement was made in the space above the shaded area.

Sample Type: The shaded areas in this column contain the type of sample (e.g. grab, composite, continuous) required by the permit. Enter the actual sample type that was taken in the space above the shaded area.

Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.

Comment and Explanation of Any Violations: Use this area to explain any exceedances, any upset or by-pass events, or other items which require explanation. If more space is needed, reference all attachments in this area.

PART B - DAILY SAMPLE RESULTS

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed. Daily Monitoring Results: Transfer all analytical data from your facility's laboratory or a contract laboratory's data sheets for all day(s) that samples were collected. Record the data in the units indicated. Table 1 in Chapter 62-160, F.A.C., contains a complete list of all the data qualifier codes that your laboratory may use when reporting analytical results. However, when transferring numerical results onto Part B of the DMR, only the following data qualifier codes should be used and an explanation provided where appropriate.

| ~ | Jues should | be used und un explanation provided where appropriate. | | | | | | |
|---|---|---|--|--|--|--|--|--|
| | CODE | DESCRIPTION/INSTRUCTIONS | | | | | | |
| | < The compound was analyzed for but not detected. | | | | | | | |
| | А | Value reported is the mean (average) of two or more determinations. | | | | | | |
| | J | Estimated value, value not accurate. | | | | | | |
| | Q | Sample held beyond the actual holding time. | | | | | | |
| | Y | Laboratory analysis was from an unpreserved or improperly preserved sample. | | | | | | |

To calculate the monthly average, add each reported value to get a total. For flow, divide this total by the number of days in the month. For all other parameters, divide the total by the number of observations. **Plant Staffing:** List the name, certificate number, and class of all state certified operators operating the facility during the monitoring period. Use additional sheets as necessary.

PART D - GROUND WATER MONITORING REPORT

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed. Date Sample Obtained: Enter the date the sample was taken. Also, check whether or not the well was purged before sampling.

Time Sample Obtained: Enter the time the sample was taken.

Sample Measurement: Record the results of the analysis. If the result was below the minimum detection limit, indicate that. Data qualifier codes are not to be reported on Part D.

Detection Limits: Record the detection limits of the analytical methods used.

Analysis Method: Indicate the analytical method used. Record the method number from Chapter 62-160 or Chapter 62-601, F.A.C., or from other sources.

Sampling Equipment Used: Indicate the procedure used to collect the sample (e.g. airlift, bucket/bailer, centrifugal pump, etc.)

Samples Filtered: Indicate whether the sample obtained was filtered by laboratory (L), filtered in field (F), or unfiltered (N).

Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.

Comments and Explanation: Use this space to make any comments on or explanations of results that are unexpected. If more space is needed, reference all attachments in this area.

SPECIAL INSTRUCTIONS FOR LIMITED WET WEATHER DISCHARGES

Flow (Limited Wet Weather Discharge): Enter the measured average flow rate during the period of discharge or divide gallons discharged by duration of discharge (converted into days). Record in million gallons per day (MGD). Flow (Upstream): Enter the average flow rate in the receiving stream upstream from the point of discharge for the period of discharge. The average flow rate can be calculated based on two measurements; one made at the start and one made at the end of the discharge period. Measurements are to be made at the upstream gauging station described in the permit.

Actual Stream Dilution Ratio: To calculate the Actual Stream Dilution Ratio, divide the average upstream flow rate by the average discharge flow rate. Enter the Actual Stream Dilution Ratio accurate to the nearest 0.1.

No. of Days the SDF > Stream Dilution Ratio: For each day of discharge, compare the minimum Stream Dilution Factor (SDF) from the permit to the calculated Stream Dilution Ratio. On Part B of the DMR, enter an asterisk (*) if the SDF is greater than the Stream Dilution Ratio on any day of discharge. On Part A of the DMR, add up the days with an "*" and record the total number of days the Stream Dilution Factor was greater than the Stream Dilution Ratio.

CBOD₅: Enter the average CBOD₅ of the reclaimed water discharged during the period shown in duration of discharge.

TKN: Enter the average TKN of the reclaimed water discharged during the period shown in duration of discharge.

Actual Rainfall: Enter the actual rainfall for each day on Part B. Enter the actual cumulative rainfall to date for this calendar year and the actual total monthly rainfall on Part A. The cumulative rainfall to date for this calendar year is the total amount of rain, in inches, that has been recorded since January 1 of the current year through the month for which this DMR contains data.

Rainfall During Average Rainfall Year: On Part A, enter the total monthly rainfall during the average rainfall year and the cumulative rainfall for the average rainfall year. The cumulative rainfall for the average rainfall year is the amount of rain, in inches, which fell during the average rainfall year from January through the month for which this DMR contains data.

No. of Days LWWD Activated During Calendar Year: Enter the cumulative number of days that the limited wet weather discharge was activated since January 1 of the current year.

Reason for Discharge: Attach to the DMR a brief explanation of the factors contributing to the need to activate the limited wet weather discharge.

STATEMENT OF BASIS FOR STATE OF FLORIDA DOMESTIC WASTEWATER FACILITY PERMIT

| PERMIT NUMBER: | FLA014313-016 |
|--------------------|------------------|
| I EIGHI I TOUIDEIG | 1 L/101 1515 010 |

FACILITY NAME: City of Avon Park WWTP

FACILITY LOCATION: US Highway 27 S, Avon Park, FL 33825 Highlands County

NAME OF PERMITTEE: City of Avon Park

PERMIT WRITER: Bill Robertson, P.E.

1. SUMMARY OF APPLICATION

a. <u>Chronology of Application</u>

Application Number: FLA014313-016-DW1P

Application Submittal Date: November 17, 2020

b. Type of Facility

Domestic Wastewater Treatment Plant

Ownership Type: Municipal

SIC Code: 4952

c. Facility Capacity

Existing Permitted Capacity: Increase in Permitted Capacity*: Proposed Total Permitted Capacity: 0.80 mgd Annual Average Daily Flow 0.70 mgd Annual Average Daily Flow 1.50 mgd Annual Average Daily Flow

*This increase is due to bringing online the two additional percolation ponds that were required by Administrative Order No. AO-05012016 which provided time for the permittee to increase the permitted capacity of R-001 to at least the original permitted capacity of the facility of 1.50 mgd.

d. Description of Wastewater Treatment

Operate an existing 1.50 million gallons per day (MGD) design capacity wastewater treatment plant (WWTP) annual average daily flow (AADF) extended aeration process. The WWTP consists of: pretreatment works with a mechanical micro screen and aerated grit channel system, two (2) concrete oxidation ditches with a total capacity of 1,500,000 gallons, dual clarifiers for a total of 416,000 gallons, RAS/WAS pump station, dual holding tanks for a total of 90,000 gallons, dual sludge drying beds and a single 49,000 gallon chlorine contact chamber. Disinfection is accomplished using liquid sodium hypochlorite.

This facility also has automated septage processing equipment to manage their own and other WWTP facilities biosolids. The maximum capacity of the screw press is 250 dry pounds per hour and 1,095 dry tons per year. All of the filtrate from the press will be pumped back to the headworks of the wastewater treatment facility.

The Department authorizes the demolition and replacement of the headworks with the following configuration: mechanical bar screen in a stainless steel channel, a bypass channel with manual bypass screen, grit removal system, lamella plate separator, grease removal system grit classifier screw and associated appurtenances. The peak hydraulic capacity of the new headworks will be 5.0 MGD.

e. Description of Effluent Disposal and Land Application Sites (as reported by applicant)

Effluent is discharged via R-001, an existing 1.85 MGD annual average daily flow permitted capacity rapid infiltration basin system. R-001 is a reuse system which consists of an existing 1.85 MGD annual average daily flow (AADF) capacity rapid rate land application system (R-001) consisting of eight evaporation/percolation ponds having a capacity of 1.85 MGD located approximately at latitude 27°33' 38" N, longitude 81°31' 3" W.

2. SUMMARY OF SURFACE WATER DISCHARGE

This facility does not discharge to surface waters.

3. BASIS FOR PERMIT LIMITATIONS AND MONITORING REQUIREMENTS

This facility is authorized to direct reclaimed water to Reuse System R-001, a rapid infiltration basin system, based on the following:

| Parameter | Units | Max/ | Limit | Statistical Basis | Rationale |
|--------------------|---------|------|--------|-------------------|--------------------------------------|
| | | Min | | | |
| Flow | MCD | Max | 1.85 | Annual Average | 62-600.700(2)(b) & 62-610.810(5) FAC |
| | MOD | Max | Report | Monthly Average | 62-600.700(2)(b) & 62-610.810(5) FAC |
| BOD, Carbonaceous | | Max | 20.0 | Annual Average | 62-610.510 & 62-600.420(3)(a)1. FAC |
| 5 day, 20C | m a/I | Max | 30.0 | Monthly Average | 62-610.510 & 62-600.420(3)(a)2. FAC |
| | mg/L | Max | 45.0 | Weekly Average | 62-610.510 & 62-600.420(3)(a)3. FAC |
| | | Max | 60.0 | Single Sample | 62-610.510 & 62-600.420(3)(a)4. FAC |
| Solids, Total | | Max | 20.0 | Annual Average | 62-610.510 & 62-600.420(3)(b)1. FAC |
| Suspended | | Max | 30.0 | Monthly Average | 62-610.510 & 62-600.420(3)(b)2. FAC |
| | mg/L | Max | 45.0 | Weekly Average | 62-610.510 & 62-600.420(3)(b)3. FAC |
| | | Max | 60.0 | Single Sample | 62-610.510 & 62-600.420(3)(b)4. FAC |
| Coliform, Fecal | | Max | 200 | Monthly | 62-62-600.440(5)(a)2 FAC |
| | | | | Geometric Mean | |
| | #/100mL | Max | 200 | Annual Average | 62-62-600.440(5)(a)1 FAC |
| | | Max | 400 | 90th Percentile | 62-62-600.440(5)(a)3 FAC |
| | | Max | 800 | Single Sample | 62-62-600.440(5)(a)4 FAC |
| pН | a 11 | Min | 6.0 | Single Sample | 62-600.445 FAC |
| | s.u. | Max | 8.5 | Single Sample | 62-600.445 FAC |
| Chlorine, Total | | Min | 0.5 | Single Sample | 62-610.510 & 62-600.440(5)(c) FAC |
| Residual (For | mg/L | | | | |
| Disinfection) | | | | | |
| Nitrogen, Nitrate, | mg/L | Max | 12.0 | Single Sample | 62-610.510(1) FAC |
| Total (as N) | iiig/L | | | | |

| Parameter | Units | Max/ | Limit | Statistical Basis | Rationale |
|-------------------|-------|------|-------|-------------------|-----------------------------------|
| | | Min | | | |
| Nitrogen, Total | | Max | 3.0 | Annual Average | OGC Case No. 20-0040, DEP No. 20- |
| | | | | | 0065, 62-600.740(2)(b)1, FAC |
| | ma/I | Max | 3.75 | Monthly Average | OGC Case No. 20-0040, DEP No. 20- |
| | mg/L | | | | 0065, 62-600.740(2)(b)2, FAC |
| | | Max | 6 | Single Sample | OGC Case No. 20-0040, DEP No. 20- |
| | | | | | 0065, 62-600.740(2)(b)4, FAC |
| Phosphorus, Total | | Max | 1.0 | Annual Average | OGC Case No. 20-0040, DEP No. 20- |
| (as P) | | | | | 0065, 62-600.740(2)(b)1, FAC |
| | mg/L | Max | 1.25 | Monthly Average | OGC Case No. 20-0040, DEP No. 20- |
| | | | | | 0065, 62-600.740(2)(b)2, FAC |
| | | Max | 2.0 | Single Sample | OGC Case No. 20-0040, DEP No. 20- |
| | | | | | 0065, 62-600.740(2)(b)4, FAC |

Other Limitations and Monitoring Requirements:

| Parameter | Units | Max/ | Limit | Statistical Basis | Rationale |
|----------------------|---------|------|--------|-------------------|--|
| | | Min | | | |
| Percent Capacity, | percent | Max | Report | Monthly | 62-600.405(4) FAC |
| (TMADF/Permitted | | | | Average | |
| Capacity) x 100 | | | | | |
| BOD, | mg/L | Max | Report | Single Sample | 62-600.660(1) FAC |
| Carbonaceous 5 | - | | - | | |
| day, 20C (Influent) | | | | | |
| Solids, Total | mg/L | Max | Report | Single Sample | 62-600.660(1) FAC |
| Suspended (Influent) | - | | - | | |
| Monitoring | - | - | - | All Parameters | 62-600 FAC & 62-699 FAC and/or BPJ of |
| Frequencies and | | | | | permit writer |
| Sample Types | | | | | |
| Sampling Locations | - | - | - | All Parameters | 62-600, 62-610.412, 62-610.463(1), 62- |
| | | | | | 610.568, 62-610.613 FAC and/or BPJ of |
| | | | | | permit writer |

4. IMPAIRMENT STATUS OF RECEIVING WATERS

This facility does not discharge to surface waters, however, R-001, rapid infiltration basins land application system is located in a nutrient-impaired basin (Okeechobee Basin). When effluent is land applied it infiltrates into groundwater and has the potential to deliver nutrient loads to the aquifer and hydrologically connected surface waters. Monitoring for total nitrogen and total phosphorus is included for R-001, rapid infiltration system in permit condition I.A.1 in order to provide reasonable assurance that the discharge to ground waters will not cause or contribute to the nutrient impairment in the basin.

5. DISCUSSION OF CHANGES TO PERMIT LIMITATIONS

The design capacity of the facility has been changed from 0.8 MGD back to 1.5 MGD because the reuse system has been uprated to achieve at least 1.50 MGD with the addition of two new percolation ponds that provide a total of 1.85 mgd.

The requirement to report the 90^{th} percentile (limit 400 #/100mL) for fecal coliforms has been added to the permit per rule 62-62-600.440(5)(a)3, FAC.

6. BIOSOLIDS MANAGEMENT REQUIREMENTS

Biosolids generated by this facility may be transferred to unknown or disposed of in a Class I solid waste landfill.

See the table below for the rationale for the biosolids quantities monitoring requirements.

| Parameter | Units | Max/ | Limit | Statistical Basis | Rationale |
|---------------------------|----------|------|----------|-------------------|------------------------|
| | | Min | | | |
| Biosolids Quantity | dry tons | Max | Report | Monthly Total | 62-640.650(5)(a)1. FAC |
| (Received) | | | _ | - | |
| Biosolids Quantity | dry tons | Max | Report | Monthly Total | 62-640.650(5)(a)1. FAC |
| (Landfilled) | | | _ | - | |
| Biosolids Quantity | dry tons | Max | Report | Monthly Total | 62-640.650(5)(a)1. FAC |
| (Transferred) | - | | _ | - | |
| Monitoring Frequency | | | All Para | meters | 62-640.650(5)(a) FAC |

7. GROUND WATER MONITORING REQUIREMENTS

Ground water monitoring requirements have been established in accordance with Chapters 62-520, 532, 610, and 620, F.A.C. This facility falls within the area covered by FDEP Final Order 20-0065, Okeechobee Basin Management Action Plan and will be required to meet Total Phosphorus and Total Nitrogen limits. The limits will be 1 and 3 mg/L respectively at the groundwater compliance wells.

8. <u>PERMIT SCHEDULES</u>

This permit does not include any action items.

9. INDUSTRIAL PRETREATMENT REQUIREMENTS

At this time, the facility is not required to develop an approved industrial pretreatment program. However, the Department reserves the right to require an approved program if future conditions warrant.

10. ADMINISTRATIVE ORDERS (AO) AND CONSENT ORDERS (CO)

This permit is accompanied by AO-014313-016, effective 05/10/2021, which includes a schedule of compliance. The AO is hereby incorporated by reference. This Administrative Order provides additional time for the permittee to come into compliance with the conditions of Final Order 20-0040 for the Okeechobee BMAP.

11. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

No variances were requested for this facility.

12. THE ADMINISTRATIVE RECORD

The administrative record is available for public inspection electronically at http://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/FLA014313/facility!search, or during normal business hours at the location specified in item 13. Copies will be provided at a minimal charge per page.

13. <u>DEP CONTACT</u>

Additional information concerning the permit and proposed schedule for permit issuance may be obtained during normal business hours from:

Bill Robertson Professional Engineer I South District Office

2295 Victoria Ave Suite 364 Ft. Myers, FL 33901-3875

Telephone No.: (239) 344-5657



APPENDIX B: Expansion Alternatives OPC

| PRELIMINARY OPINION OF PROBABLE COSTS AVON PARK MODIFICATIONS ALTERNATIVE 1 | | | | | | | |
|---|--|-----------|----|--------------|----|--------------|--|
| ITEM | DESCRIPTION | QUANTITY | | UNIT PRICE | | AMOUNT | |
| I. MISCELLANEC | | | | | | | |
| 1 | Mobilization/Demobilization (Not to Exceed 5% of Lump Sum Bid) | 1 | LS | 330,237.50 | | 330,237.50 | |
| 2 | Site Modifications (15%) | 1 | LS | 990,712.50 | | 990,712.50 | |
| 3 | Electrical and Instrumentation (20%) | 1 | LS | 1,320,950.00 | | 1,320,950.00 | |
| | · | | | SUBTOTAL | \$ | 2,641,900 | |
| II. PROPOSED IM | IPROVEMENTS | | | | | | |
| 4 | Rotor Modifications, Process Control, Internal Recyle Pump System, Mixers, Weir Modifications | 1 | LS | 1,463,000.00 | | 1,463,000.00 | |
| 5 | Post Anoxic Tank w/ Rearation Zone and Aeration system | 1 | LS | 345,000.00 | | 345,000.00 | |
| 6 | Anaerobic Tank | 1 | LS | 285,000.00 | | 356,250.00 | |
| 7 | Filters and Filter Pump Station | 1 | LS | 1,090,500.00 | | 1,090,500.00 | |
| 8 | Chemical and Carbon Feed System | 1 | LS | 300,000.00 | | 300,000.00 | |
| 9 | RAS/WAS Pump Station Modifications | 1 | LS | 450,000.00 | | 450,000.00 | |
| 10 | Effluent Pump Station Upgrades | 1 | LS | 100,000.00 | | 100,000.00 | |
| 11 | RIB Expansion from 1.85 to 2 MGD | 1 | LS | 300,000.00 | | 300,000.00 | |
| 12 | Clarifier Improvements | 2 | EA | 200,000.00 | | 400,000.00 | |
| 13 | New 600,000 gallon Sludge Holding Tank w/ Aeration | 1 | LS | 1,100,000.00 | | 1,100,000.00 | |
| 14 | Chlorine Contact Chamber Expansion | 1 | EA | 100,000.00 | | 100,000.00 | |
| 15 | Screw Press | 1 | LS | 350,000.00 | | 350,000.00 | |
| 16 | Ditch Platform Modifications | 1 | LS | 100,000.00 | | 100,000.00 | |
| 17 | Rotor VFDS | 8 | EA | 18,750.00 | | 150,000.00 | |
| | | | | SUBTOTAL | \$ | 6,604,750.00 | |
| | SUMMARY | | | | | | |
| I. MISCELLANEC | \$ | 2,641,900 | | | | | |
| II. PROPOSED IMPROVEMENTS | | | | | | 6,604,750 | |
| SURVEY, DESIGN, AND PERMITTING (12%) | | | | | | 1,109,598 | |
| DDA DOM INGENUI (JU70) | | | | | | 2,773,995 | |
| PROJECT TOTAL | | | | | | 13,130,200 | |
| Notes: | | | | | | | |

| PRELIMINARY OPINION OF PROBABLE COSTS AVON PARK MODIFICATIONS ALTERNATIVE 2 | | | | | | |
|---|---|----------|----|--------------|--------------|-----------------|
| ITEM | DESCRIPTION | QUANTITY | | UNIT PRICE | AMOUNT | |
| I. MISCELLANEO | DUS | | | | | |
| 1 | Mobilization/Demobilization (Not to Exceed 5% of Lump Sum Bid) | 1 | LS | 391,330.00 | 391,330 | .00 |
| 2 | Site Modifications (10%) | 1 | LS | 782,660.00 | 782,660 | .00 |
| 3 | Electrical and Instrumentation (20%) | 1 | LS | 1,565,320.00 | 1,565,320 | .00 |
| | | | | SUBTOTAL | \$ 2,739, | 310 |
| II. PROPOSED IM | IPROVEMENTS | | | | | |
| 4 | Membrane Bioreactor System (Equipment, MBR aeration, Chemical Feed, MBRs units, WAS Pumps, and Instrumentation) | 1 | LS | 3,625,000.00 | 3,625,000 | .00 |
| 5 | Effluent Pump Station Upgrades | 1 | LS | 100,000.00 | 100,000 | .00 |
| 6 | RIB Expansion from 1.85 to 2 MGD | 1 | LS | 300,000.00 | 300,000 | .00 |
| 7 | New 600,000 gallon Sludge Holding Tank w/ Aeration | 1 | LS | 1,100,000.00 | 1,100,000 | .00 |
| 8 | Chlorine Contact Chamber Expansion | 1 | LS | 100,000.00 | 100,000 | .00 |
| 9 | FRP Baffle Walls | 12 | EA | 16,800.00 | 201,600 | .00 |
| 10 | Fine Screen Structure | 1 | LS | 800,000.00 | 800,000 | .00 |
| 11 | Aeration Basin Diffused Aeration System | 1 | LS | 1,050,000.00 | 1,050,000 | .00 |
| 12 | Ditch Platform Modifications | 1 | LS | 200,000.00 | 200,000 | .00 |
| 13 | Screw Press | 1 | LS | 350,000.00 | 350,000 | .00 |
| | | | | SUBTOTAL | \$ 7,826,600 | .00 |
| | SUMMARY | | | | | |
| I. MISCELLANEC | \$ 2,739, | 310 | | | | |
| II. PROPOSED IM | \$ 7,826, | 500 | | | | |
| SURVEY, DESIGN, AND PERMITTING (12%) | | | | | |) 09 |
| CONTRACT CONTINGENCY (30%) | | | | | | 173 |
| PROJECT TOTAL | | | | | | 500 |
| Notes: | | | | | | |

| PRELIMINARY OPINION OF PROBABLE COSTS AVON PARK MODIFICATIONS ALTERNATIVE 3 | | | | | | | |
|---|---|-----------|----|--------------|----|--------------|--|
| ITEM | DESCRIPTION | QUANTITY | | UNIT PRICE | | AMOUNT | |
| I. MISCELLANEO | US | • | | | | | |
| 1 | Mobilization/Demobilization (Not to Exceed 5% of Lump Sum Bid) | 1 | LS | 359,775.00 | | 359,775.00 | |
| 2 | Site Modifications (15%) | 1 | LS | 1,079,325.00 | | 1,079,325.00 | |
| 3 | Electrical and Instrumentation (20%) | 1 | LS | 1,439,100.00 | | 1,439,100.00 | |
| | | | | SUBTOTAL | \$ | 2,878,200 | |
| II. PROPOSED IM | PROVEMENTS | | | | | | |
| 4 | Retrofit Ditches (Aeration, Mixers, Process Control) | 1 | EA | 2,175,000.00 | | 2,175,000.00 | |
| 5 | Post Anoxic Tank | 1 | LS | 345,000.00 | | 345,000.00 | |
| 6 | Anaerobic Tank | 1 | LS | 285,000.00 | | 285,000.00 | |
| 7 | Filters and Filter Pump Station | 1 | LS | 1,090,500.00 | | 1,090,500.00 | |
| 8 | Chemical and Carbon Feed System | 1 | LS | 300,000.00 | | 300,000.00 | |
| 9 | RAS/WAS Pump Station Modifications | 1 | LS | 450,000.00 | | 450,000.00 | |
| 10 | Effluent Pump Station Upgrades | 1 | LS | 100,000.00 | | 100,000.00 | |
| 11 | RIB Expansion from 1.85 to 2 MGD | 1 | LS | 300,000.00 | | 300,000.00 | |
| 12 | Clarifier Improvements | 2 | EA | 200,000.00 | | 400,000.00 | |
| 13 | New 600,000 gallon Sludge Holding Tank w/ Aeration | 1 | LS | 1,100,000.00 | | 1,100,000.00 | |
| 14 | Chlorine Contact Chamber Expansion | 1 | EA | 100,000.00 | | 100,000.00 | |
| 15 | Ditch Platform Modifications | 1 | LS | 200,000.00 | | 200,000.00 | |
| 16 | Screw Press | 1 | LS | 350,000.00 | | 350,000.00 | |
| | | | | SUBTOTAL | \$ | 7,195,500.00 | |
| | SUMMARY | | | | | | |
| I. MISCELLANEO | \$ | 2,878,200 | | | | | |
| II. PROPOSED IM | \$ | 7,195,500 | | | | | |
| SURVEY, DESIGN, AND PERMITTING (12%) | | | | | | 1,208,844 | |
| CONTRACT CONTINGENCY (30%) | | | | | | 3,022,110 | |
| PROJECT TOTAL | | | | | | 14,304,700 | |
| Notes: | | | | | | | |

| PRELIMINARY OPINION OF PROBABLE COSTS AVON PARK MODIFICATIONS ALTERNATIVE 4 | | | | | | | |
|---|--|----------|----|--------------|-----------------|--|--|
| ITEM | DESCRIPTION | QUANTITY | | UNIT PRICE | AMOUNT | | |
| I. MISCELLANEO | US | | | | | | |
| 1 | Mobilization/Demobilization (Not to Exceed 5% of Lump Sum Bid) | 1 | LS | 361,400.00 | 361,400.00 | | |
| 2 | Site Modifications (12%) | 1 | LS | 867,360.00 | 867,360.00 | | |
| 3 | Electrical and Instrumentation (20%) | 1 | LS | 1,445,600.00 | 1,445,600.00 | | |
| | | · | | SUBTOTAL | \$ 2,674,360 | | |
| II. PROPOSED IM | PROVEMENTS | | | | | | |
| 4 | Ditch Retrofit -Diffused Aeration System, FRP Baffle Walls, Mixers, Weir Modifications, Process Control | 1 | LS | 2,537,500.00 | 2,537,500.00 | | |
| 5 | Filters and Filter Pump Station | 1 | LS | 1,090,500.00 | 1,090,500.00 | | |
| 6 | Chemical and Carbon Feed System | 1 | LS | 300,000.00 | 300,000.00 | | |
| 7 | RAS/WAS Pump Station Modifications | 1 | LS | 450,000.00 | 450,000.00 | | |
| 8 | Effluent Pump Station Upgrades | 1 | LS | 100,000.00 | 100,000.00 | | |
| 9 | RIB Expansion from 1.85 to 2 MGD | 1 | LS | 300,000.00 | 300,000.00 | | |
| 10 | New 600,000 gallon Sludge Holding Tank w/ Aeration | 1 | LS | 1,100,000.00 | 1,100,000.00 | | |
| 11 | Clarifier Improvements | 2 | EA | 200,000.00 | 400,000.00 | | |
| 12 | Chlorine Contact Chamber Expansion | 1 | LS | 100,000.00 | 100,000.00 | | |
| 13 | Ditch Platform Modifications | 1 | LS | 200,000.00 | 200,000.00 | | |
| 14 | Additional Tankage including Mixers | 1 | LS | 300,000.00 | 300,000.00 | | |
| 15 | Screw Press | 1 | LS | 350,000.00 | 350,000.00 | | |
| | | | | SUBTOTAL | \$ 7,228,000.00 | | |
| | SUMMARY | | | | | | |
| I. MISCELLANEO | \$ 2,674,360 | | | | | | |
| II. PROPOSED IM | \$ 7,228,000 | | | | | | |
| SURVEY, DESIGN | \$ 1,188,283 | | | | | | |
| CONTRACT CONT | \$ 2,970,708 | | | | | | |
| | \$ 14,061,400 | | | | | | |
| Notes: | | | | | | | |