Town of Eatonville Potable Water Utility Master Plan

(FY 2023/24 to FY 2043/44)

FDEP PWS No. 3480327
SJRWMD CUP No. 3407

Prepared For:

Town of Eatonville

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CPH Job No.: E6614

February 2024

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Abbreviations

Abbreviation	Term
AADD	Annual Average Daily Demand
AC	Asbestos Cement Pipe
ARV	Air Release Valve
ASDWA	Amendments to the Safe Drinking Water Act
ATS	Automatic Transfer Switches
AWS	Alternative Water Supply
AWWA	America Water Works Association
BDL	Below Detection Limit
CAR	Capacity Analysis Report
CCI	Construction Cost Index
CCL	Contaminant Candidate List
CCR	Consumer Confidence Report
CEC	Contaminants of Emerging Concern
CFR	Code of Federal Regulations
CFWI	Central Florida Water Initiative
Chapter 550	Chapter 550: Drinking Water Standards, Monitoring, and Reporting
Chapter 555	Chapter 62-555: Permitting, Construction, Operation, and Maintenance of Public Water Systems
Chapter 62-296	Chapter 296: Stationary Sources – Emissions Standards
CIP	Capital Improvements Plan
CO	Consent Order
CRA	Community Redevelopment Agency
CT	Chlorine Contact Time
CTA	Cascade Tray Aerator
CUP	Consumptive Use Permit
CWS	Community Water System
D/DBPR	Disinfectant/Disinfection Byproducts Rule
DBP	Disinfection Byproducts
DIP	Ductile Iron Pipe
EPS	Extended Period Simulation

Abbreviations

Abbreviation	Term
ERP	Emergency Response Plan
ERU	Equivalent Residential Unit
EST	Elevated Storage Tank
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FDOH	Florida Department of Health
FEMA	Federal Emergency Management Agency
FF	Fire-flow
FP	Formation Potential
FPS	Feet per second
ft	Feet
GIS	Geographic Information Systems
GPCD	Gallons per capita day
GPD	Gallons per day
GPM	Gallons per minute
GPM	Gallons per minute
GST	Ground Storage Tank
GWR	Ground Water Rule
H_2S	Hydrogen Sulfide
HAA5	Haloacetic Acids
HAL	Health Advisory Level
HDPE	High Density Poly Ethylene
HGL	Hydraulic grade line
HP	Horsepower
IDSE	Initial Distribution System Evaluation
JPA	Joint Planning Area
LCR	Lead and Copper Rule
LF	Linear feet
LFA	Lower Floridian Aquifer
LFAS	Lower Floridian Aquifer System
LOS	Level of Service
LRAA	Locational Running Annual Average
LSL	Lead Service Lines
MCL	Maximum Contaminant Level

Abbreviations

Abbreviation	Term
MCLG	Maximum Contaminant Level Goal
MDD	Maximum daily demand
MG	Million gallons
mg/L	Milligrams per liter
MGD	Million Gallons Per Day
MGY	Million Gallons Per Year
MOR	Monthly Operating Report
MRDL	Maximum Residual Disinfectant Level
MSL	Mean Sea Level
NPDWR	National Primary Drinking Water Regulations
NSDWR	National Secondary Drinking Water Regulations
NTU	Nephelometric Turbidity Units
OH&P	Overhead and Profit
pCi/L	Pico Curies per liter
PHD	Peak hour demand
POE	Point of Entry
PRV	Pressure reducing valve
psi	Pounds per square inch
PVC	Poly vinyl chloride
PWS	Public Water System
RAA	Running Annual Average
RPM	Rotations Per Minute
R/R	Repair and Replacement
$S^0_{(solid)}$	Elemental sulfur
SAS	Surficial Aquifer System
SCADA	Supervisory Control and Data Acquisition
SDWA	Safe Drinking Water Act
SF	Square feet
SJRWMD	St. Johns River Water Management District
SMCL	Secondary Maximum Contaminant Level
SOC	Synthetic Organic Chemicals
SRF	State Revolving Fund
SS	Steady-state
SWTR	Surface Water Treatment Rule

Abbreviations

Abbreviation	Term
TAC	Technical Advisory Committee
TCR	Total Coliform Rule
TDH	Total Dynamic Head
THM	Trihalomethanes
TOC	Total Organic Carbon
TON	Total Odor Number
Town	Town of Eatonville
TS	Total Sulfide
TTHM	Total Trihalomethanes
UCMR	Unregulated Contaminant Monitoring Rule
UCU	Upper Confining Unit
UFA	Upper Floridian Aquifer
UFAS	Upper Floridian Aquifer System
USDA	US Department of Agriculture
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
VA	Vulnerability Assessment
VFD	Variable frequency drive
VOC	Volatile Organic Chemical
WSFWP	Water Supply Facilities Work Plan
WTP	Water Treatment Plant
µg/L	Micrograms per liter

Executive Summary

The Master Plan is intended to provide a guide for orderly expansion, operation, and maintenance of the Town of Eatonville (Town) potable water system. The Town will use this master plan to prepare annual budgets for capital improvements. This Master Plan should be regularly updated to reflect conditions that have changed within the Town's service area. **Updates to the Master Plan should be scheduled every 4 to 5 years**.

Currently, the Town of Eatonville is experiencing significant population growth and development in the service area. Currently, the Town provides potable water to approximately 800 service connections and is projected to increase to approximately 1700 service connections by 2043. The population increase is projected to double water demand from 0.27 million gallons per day (MGD) to 0.66 MGD by 2043. The growth has resulted in necessary revisions to the population and demand projections. This master plan is required to update previous potable water service area projections and assess the need for recommended improvements.

The Town owns PWS No. 3480327. Biometrics Utility operates PWS No. 3480327 per a service agreement with the Town. Site visits were conducted to the water treatment plant and off-site elevated storage tank to assess the current condition of wells, treatment, storage, and pumping facilities. Each component and system were evaluated regarding compliance with the rules of the Florida Department of Environmental Protection (FDEP) for primarily, minimum design and operating capacities.

The Town's water system maps were updated with new planned developments within the potable water service area that have developer agreements and are currently being designed or constructed.

1. Lake Weston Apartments (Under Construction)
2. Enclave Apartments (Under Construction)
3. Host Dime (Under Construction)
4. Hungerford Property (Planning)

In addition, development of available vacant land infill was considered for parcels greater than one acre. Water main upgrades are likely to be required depending on the locations of planned developments.

Specific capital improvements will have to be identified and prioritized by the Town as more planned developments become reality.

Planned development and water mains were incorporated into the Town's Geographical Information System (GIS). The GIS mapping was then used as a base for hydraulic modeling of the water distribution system. Bentley WaterCAD software was used to hydraulically model the water distribution system under the following four (4) scenarios:

1. Existing System – Base Model
2. Existing System with Off-Site EST Off-Line
3. Planned Development
4. Planned Development with Off-Site EST Off-Line

Demands were placed at key nodes throughout the distribution system. The results of the hydraulic modeling identified system upgrades needed to meet water demands through a twenty-year horizon (2043). In general, modeling predicted that under current conditions, fireflow is not attainable on certain 2" lines within the distribution system.

An engineer's opinion of probable project costs for improvements were compiled and prioritized. Based on the prioritization and current and projected water system revenues a **5-year Capital Improvement Plan (CIP)** was prepared for budgeting approximately **$0.26 Mil to $4.00 Mil per year**.

The total probable project cost for the recommended facilities to serve the Town's potable water system is **$10.3 Mil** resulting in an estimated cost per residential connection of approximately **$6,083 per connection** assuming 1,700 total connections (800 existing + 900 planned).

Based on evaluation of the facilities, water system equipment and structures are in fair condition and finished water quality meets regulatory requirements. The Town's potable water system has the following major challenges:

A. **Compliance with Disinfection Disinfectant By-Product (D/DBP) Water Quality –** The Town was issued a Consent Order on March 3, 2023, to address D/DBP non-compliance. The chlorine chemical feed system and the off-site elevated storage tank (EST) needs to be refurbished. In addition, the off-site EST needs to "turn-over" more frequently to decrease water age in the

distribution system. Flushing devices were installed in 2023 as an initial strategy to decrease water age.

B. **Project Funding Sources** – Currently, the Town does not have impact fees established to fund expansion of the water system facility components to meet future development. As a result, the Town uses monthly water rates and secures grant money to fund projects. **The Town should conduct a rate study and impact fee analysis to identify capital improvement funding sources.**

The Town should continue with current CIP projects as identified in the current budget (**Appendix G**). The recommended five-year capital improvements projects for the Public Water System at Class 5 cost estimates are presented in **Chapter 9**.

The Town should continue to evaluate capacity and infrastructure needs to meet projected water demands of future growth; and coordinate capacity and facility expansions with the Future Land Use Map from the Town Development Services Department as guidance to prioritize expansion and upgrade the facilities. CPH offers the following recommendations for the Town to consider updating the current CIP in order of priority:

1. Relocate potable water main along Kennedy Blvd. to accommodate plans by Orange County to widen Kennedy Blvd. from Forrest City Road to Wymore Rd.
    a. Investigate Relocation of PVC pipe from Lake Weston to S. Keller Rd. If needed, Design/Permit relocation.
    b. Design/Permit Relocation and Abandonment of A/C pipe from S. Keller Rd. to WTP.
2. Upsize Water Treatment Plant No. 1 discharge water main pipe to at least 16-inch PVC from WTP to Kennedy Blvd.
3. Modify SJRWMD Consumptive Use Permit (CUP) to meet future potable water demands.
    a. Increase CUP limit to 0.420-mgd to meet the Central Florida Water Initiative (CFWI) 2025 Upper Floridan Aquifer (UFA) limitations.
    b. Permit Lower Floridan Aquifer (LFA) well to meet future demands. Includes Extended Period Simulation (EPS) hydrogeologic modeling impact evaluation.
4. Explore options to increase well field pumping capacity.

   a. Conduct well pump yield step drawdown test.

   b. Upsize well pump and motors.

5. Design/Permit/Construct New WTP to replace Existing WTP

   a. Construct new WTP operations building to include new HSPs, chemical feed systems and diesel generator.

   b. Construct new 500,000-gallon Ground Storage Tank (GST) to meet fire storage requirements. Include demonstration of 4-log virus inactivation CT disinfection calculations to increase consumer confidence.

6. Upsize selected water mains to at least 8-inch PVC to meet fireflow reliability.

7. Design/Permit/Construct/Test LFA well to serve as Alternative Water Source (AWS) to meet demands beyond 2025.

8. Coordinate with City of Maitland to establish emergency interconnections.

   a. Option 1 – Interconnect at S. Keller & Kennedy

   b. Option 2 – Intersection of S. Lake Destiny Rd. & Kennedy Blvd

9. Establish water distribution (R/R) program to replace water mains less than 6-inches, substandard materials (Asbestos Cement/Galvanized/Unlined Cast Iron), and inoperable isolation valves.

1.0 Introduction

The Town of Eatonville (Town) authorized CPH, LLC (CPH) to prepare a potable water utility master plan for Public Water System (PWS) No. 3480327. This document serves as the Potable Water Utility Master Plan (Master Plan) for Eatonville from Fiscal Year 2023/24 to Fiscal Year 2043/44.

The potable water service area includes both planned development plus infill of available vacant land. Currently, Eatonville provides potable water to approximately 800 service connection customers. Future development and infill are projected to increase service connections to approximately 1,700 by 2043.

The annual average daily demand (AADD) potable water use is projected to increase from approximately 0.27 MGD in 2023 to 0.66 MGD in 2043. The projected maximum day (max-day) demands are expected to reach 1.85 MGD by 2043.

Eatonville operates and maintains two (2) groundwater source wells, which supply the Eatonville Water Treatment Plant (WTP) and distribute to approximately 13 miles of piping and valves to provide the highest quality of water available at the highest level of service.

The St. Johns River Water Management District (SJRWMD), under Consumptive Use Permit No. 3407 (CUP #3407), allows Eatonville to withdraw up to 146 million gallons per year (MGY) (0.40-MGD AADD) from two (2) upper Floridan aquifer (UFA) groundwater source wells until 2032. The CUP expires December 18, 2032. The Florida Department of Environmental Projection (FDEP) has set the maximum day design capacity of the Eatonville WTP to 1.44-MGD.

1.1 Purpose

The purpose of the Master Plan is as follows:

- Analyze the capabilities of the existing water system.
- Compare existing capabilities to the current and future needs.
- Project a capital improvements program (CIP) for future development over the next 20-year planning horizon.

1.0 Introduction

The Master Plan is intended to provide a guide for the orderly expansion of Eatonville's potable water system. The Master Plan includes evaluations of the water treatment plant (WTP) capacity, the water distribution system, preliminary locations for additional facilities, and a description of techniques that may be appropriate for implementation by the PWS described by the Master Plan.

Contained within this Master Plan is a detailed description and analysis of the Town of Eatonville's potable water system. Included are recommendations for improvements to the water system to meet the projected population increase within the service area. The population projections contained in this report for the water system were developed from historical demand data**.**

1.2 Goals

Goals of Eatonville's potable water system are as follows:

- Maintain potable water services that are highly reliable
- Meet or exceed regulatory requirements
- Serve existing and future development
- Construct and maintain adequate infrastructure
- Serve customers in an environmentally sound manner
- Serve and operate in a cost-efficient manner
- Meet fire flow protection demands
- Minimally rely on wholesale agreements with other service providers (**N/A at this time**)

1.3 Tasks

Formal master planning efforts are a prudent and necessary means of laying the groundwork for the orderly and economical expansion of facilities to meet the needs of growing communities such as Eatonville. This Master Plan is intended to provide Eatonville with a program for potable water system expansion to a planned 20-year horizon within the current Service Area.

This Master Plan was prepared using the best available data for the existing facilities, customer base and projected planned development for the PWS. The recommended improvements to the PWS are accompanied by a suggested CIP implementation schedule and construction cost opinions to aid

Eatonville in planning for the future. This report presents planning level recommendations for the potable water system. The following tasks were developed for this Master Plan:

1) **Evaluated Water System Capacity -** Evaluate the capacity of the potable WTP facilities and distribution system to service current and planned future population within Eatonville's potable water service area. Future potable water demands were projected based on serving existing customers and planned new developments plus infill of available vacant land.

2) **Recommended Capital Improvements Plan (CIP) –** Recommend immediate, near-term (5-year) and long-term (20-year) improvements to develop CIP projects for the potable water treatment facilities and distribution system.

1.4 Need for the Master Plan

The Town has experienced a steady population growth of 1% to 2% per year for the past five years. Currently, the Town is seeing some interest in the development of local properties, which requires an evaluation of the existing facility and distribution system capabilities to ensure current and future demands are met.

Considering the projected population growth, an evaluation is required to determine if additional water supply facilities will be required, along with extension and modifications of the existing water main transmission system.

Questions considered are as follows:

- How and where the new facilities and distribution water mains improvements are built?
- What size should the improvements be and to what design standards?
- Who should build the improvements?
- How should the improvements be financed?

In addition, the existing facilities will be evaluated to determine the adequacy of the current service. An evaluation of available water supply and required treatment is required to properly plan and budget for future improvements. Consideration is also given to redevelopment and annexation.

The existing facility evaluations highlight the necessity of developing a "Master Plan". The Master Plan describes the current and long-term needs and develops a system of phasing capable of meeting existing and long term needs with minimum duplication or waste.

1.5 Scope of the Study and Limitations

This Master Plan generally refers to and presents a long-range plan to meet the expected demands for water production, water quality, and distribution system. The Master Plan includes information pertaining to phasing and flexibility that will provide general information and guidance for the Town as the potable water system improvements are developed.

The opinions of probable cost presented in this Master Plan are only at planning level accuracy. Costs of future water main and water treatment plant improvements are projected at an average unit cost without regard to specific details such as differing site conditions, soils, necessary valves, hydrants, and appurtenances, etc. The estimated project costs for items such as surveying, soils testing, engineering, legal, and administrative are included in the cost figures.

Timing of the improvements in the undeveloped areas, such as the Hungerford Property, is dependent upon the actual construction implementation schedules of the developers. Therefore, the Town has limited control over the timing of water main improvements in undeveloped areas.

Due to the unpredictability of the timing and exact nature of future development and based on the available funds for improvements, the locations and/or timing of replacement of the new water mains may be altered. The water mains described by this Master Plan indicate the general need for an equivalent water transmission conveyance capacity, which can likely be achieved in several ways.

The final sizes and detailed routing between general connecting points can and should be modified when actually designed. Additionally, water main improvements should be installed based on an in-depth cost evaluation of various routes. Existing lines should be kept in place wherever possible and supplemented with new lines. The size of transmission pipelines will be determined based on pressure losses as water flows through a length of the pipeline. WaterCAD hydraulic modeling will be used to simulate the operational characteristics for the existing system, as well as for various alternatives for providing improved water flows and pressures throughout the distribution system.

Further, the evaluation of water treatment requirements and capacity are based on current regulatory requirements, as well as future regulatory requirements currently under consideration for implementation. The treatment techniques should be reevaluated as major changes and regulatory development occur.

Currently, there are no new rules that would dictate a change in treatment at the Town's WTP. **However, the disinfection byproduct consent order (CO No. 22-2847) issued in March of 2023 requires the Town to explore opportunities to mitigate DBP non-compliance.**

1.6 Plan Maintenance

Eatonville should use this Master Plan as a tool to prepare annual budgets for capital improvements. This Master Plan should be regularly updated to reflect conditions that have changed within Eatonville's service area. **Updates to the Master Plan should be scheduled every 5 years and coincide to the 10-year Water Supply Facility Work Plan adoption into the Town's Comprehensive Plan as required by the SJRWMD as part of the Central Florida Water Initiative (CFWI) Regional Water Supply Plan Report.**

The Plan should be reviewed and evaluated based on regulatory changes, water quality, actual population growth, and developing properties. The network of distribution mains is a major and critical part of the system. A PWS's value is limited by the availability to convey water to all locations throughout the system.

A WaterCAD hydraulic model of the water distribution system should be maintained in the Town's files. In addition, the current 2023 hydraulic model will be available on the Engineer's computer for subsequent computer analysis as directed by the Town. Future adjustments of the recommended distribution system improvements can be made and will be based on the water uses/demands as allocated in the current model.

2.0 Service Area Description

2.1 Geographic Location

Figure 2-1 present a map of the State of Florida showing the location of the Town of Eatonville. Eatonville is located in northern Orange County, in Central Florida (Latitude 28.618727, Longitude 81.383440). Eatonville is approximately 7 miles north of the City of Orlando (Orlando). The south part of the Town is bordered by the City of Winter Park (Winter Park). The northeastern part of the Town is bordered by the City of Maitland (Maitland) and by unincorporated areas of Orange County.

In addition, Eatonville's water service area is located within the governing boards water management district's Central Florida Water Initiative (CFWI) Regional Water Supply Plan (RWSP) planning area.

Figure 2-2 presents a map of the potable water service area. Total area of Eatonville, as reported by the United States Census Bureau, is 1.1 square miles (2.8 km^2). Approximately 9% of Eatonville is comprised of water, leaving 1.0 square miles of land. Out of the 1.0 square miles, approximately 0.4 square miles are developed.

2.1.1 Water Service Area Land Use and Facilities Location

The Town provides potable water service and fire protection to all areas within the incorporated Town limits. Eatonville's potable water service area consists of a mix of industrial, commercial, conservation, unincorporated, and residential areas.

The service area for Eatonville is divided by Interstate 4 primarily served from potable water mains on Kennedy Boulevard with a majority of the residential connections on the eastern side of I-4 and a majority of the commercial/industrial connections on the west side of I-4. The conservation areas consist of portions of six (6) surrounding lakes.

Currently, Eatonville currently does not have water service agreements or emergency interconnects with neighboring local governments.

2.0 Service Area Description

FIGURE 2-1: Town of Eatonville Location Map

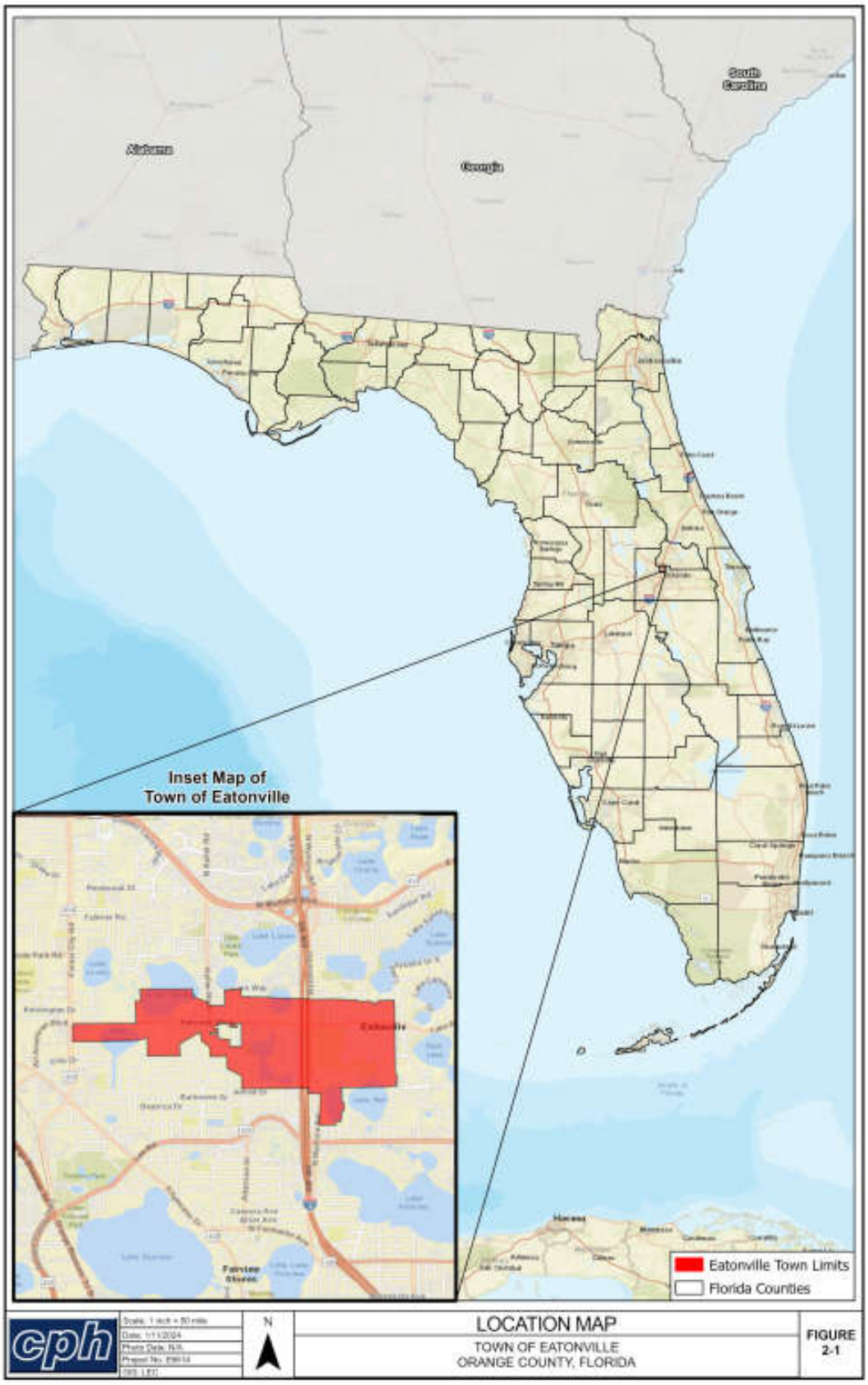
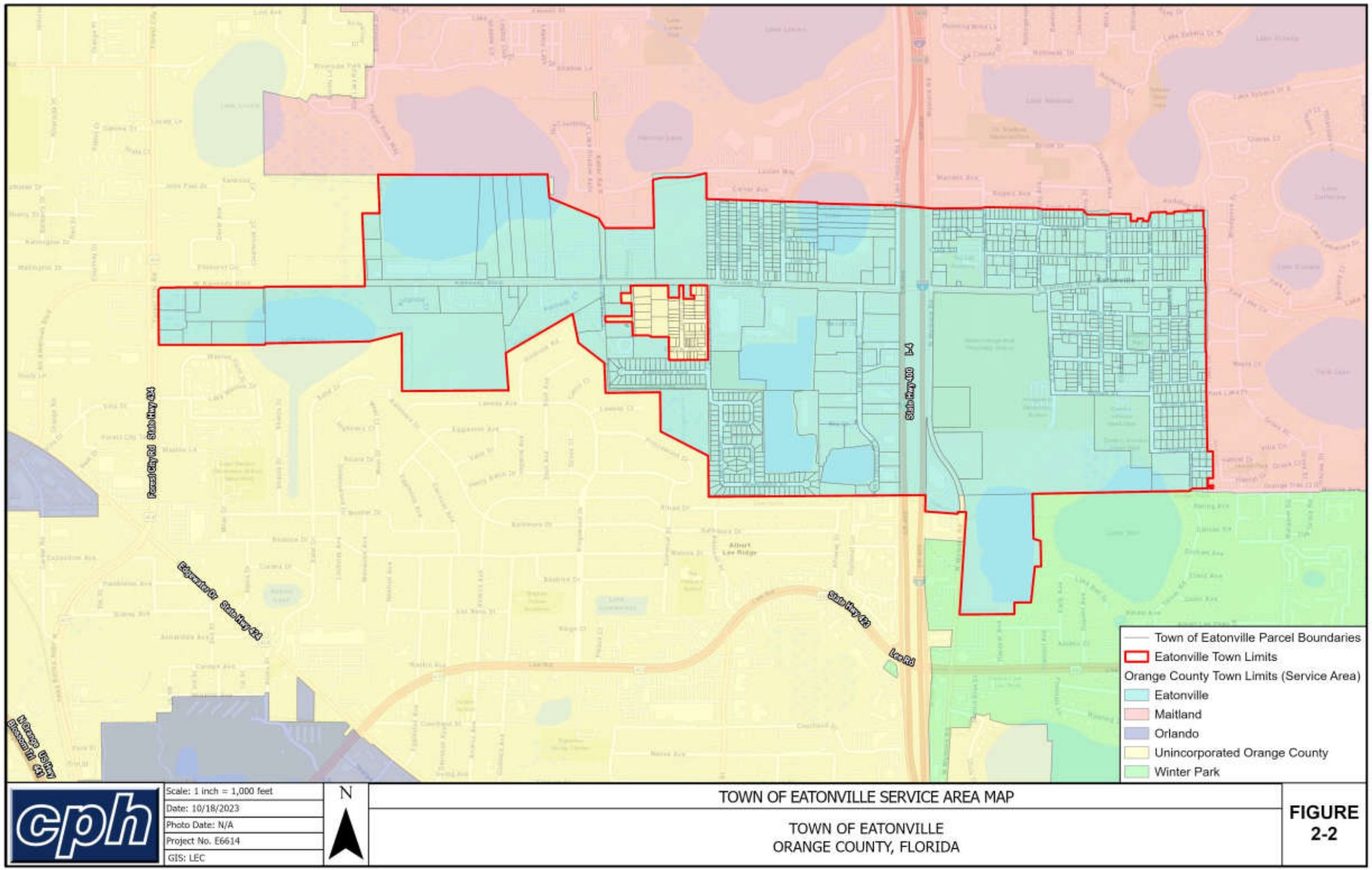


FIGURE 2-2: Town of Eatonville Potable Water Service Area



The Town owns and operates one (1) WTP and an off-site elevated storage tank (EST), with an FDEP permitted capacity of 1.44 MGD. The total length of water distribution system piping is approximately 65,500 LF, with diameters ranging from 2-inch to 10-inch pipe. The Town withdraws groundwater through two (2) public supply production wells.

The Town was issued a CUP from SJWMD for public water use. The SJRWMD issued CUP is presented in **Appendix A**. The impacts of the existing and proposed water withdrawals from the Floridan Aquifer were evaluated. **The evaluation and discussions, provided in this Master Plan, suggest that the Town will not have sufficient water supply to meet the needs of future development through 2043. Modification to existing CUP will likely be necessary prior to the CUP's 2033 expiration date**.

2.2 Climate

Eatonville's climate is considered sub-tropical with long humid summers and mild winters. According to National Climatic Data Center (NCDC) records; there is an average of 238 sunny days per year in Eatonville with an average high temperature of 92º F and an average low temperature of 53º F.

The heaviest rainfalls are in the summer from June to September with an annual average rainfall of 53 inches. The months of October to May are generally dry months with high irrigation demands. However, irrigation demands are also high during the summer due to the unusually high evapotranspiration rate in Florida.

2.3 Topography and Drainage

The Town has no distinctive hills and has a general elevation of 95 EL feet above sea level. Drainage is considered generally good with many lakes around the area and sandy soil conditions. The Town of Eatonville is located within the Middle St. John's River Basin.

2.4 Surface Waters

There are several small lakes bordering the Town, the largest of which are Lake Shadow and Lake Bell. The lakes that fall within town limits are Lake Shadow, Lake Bell, Lake Weston, Hungerford Lake, Lake Wilderness and Lake King. All water resources located in Orange County are designated as Class III, meaning the water can be used for recreational use, including fishing and swimming.

2.5 Soils

Soils have been mapped by the Soil Conservation Service of the U.S. Department of Agriculture. **Figure 2-3** depicts the soils within the Town. Fine sand makes up most of the soil within the Town's limit, specifically Zolfo-Urban Land complex and Smyrna-Urban Land Complex.

2.6 Ecology

Wetlands border the surface water bodies in and around the Town. No encroachment on existing wetlands is proposed or anticipated. There is a possible longleaf pine ecosystem in the south. There are no prime or unique farmlands, or plant and animal communities.

2.7 Air Quality

Overall, the Town's Air Quality Index has been good (0 to 50) to moderate (51 to 100) since 2009. Currently, the air quality for the service area adheres to the Federal Ambient Air Quality Standards.

2.8 Archeological and Historical Sites

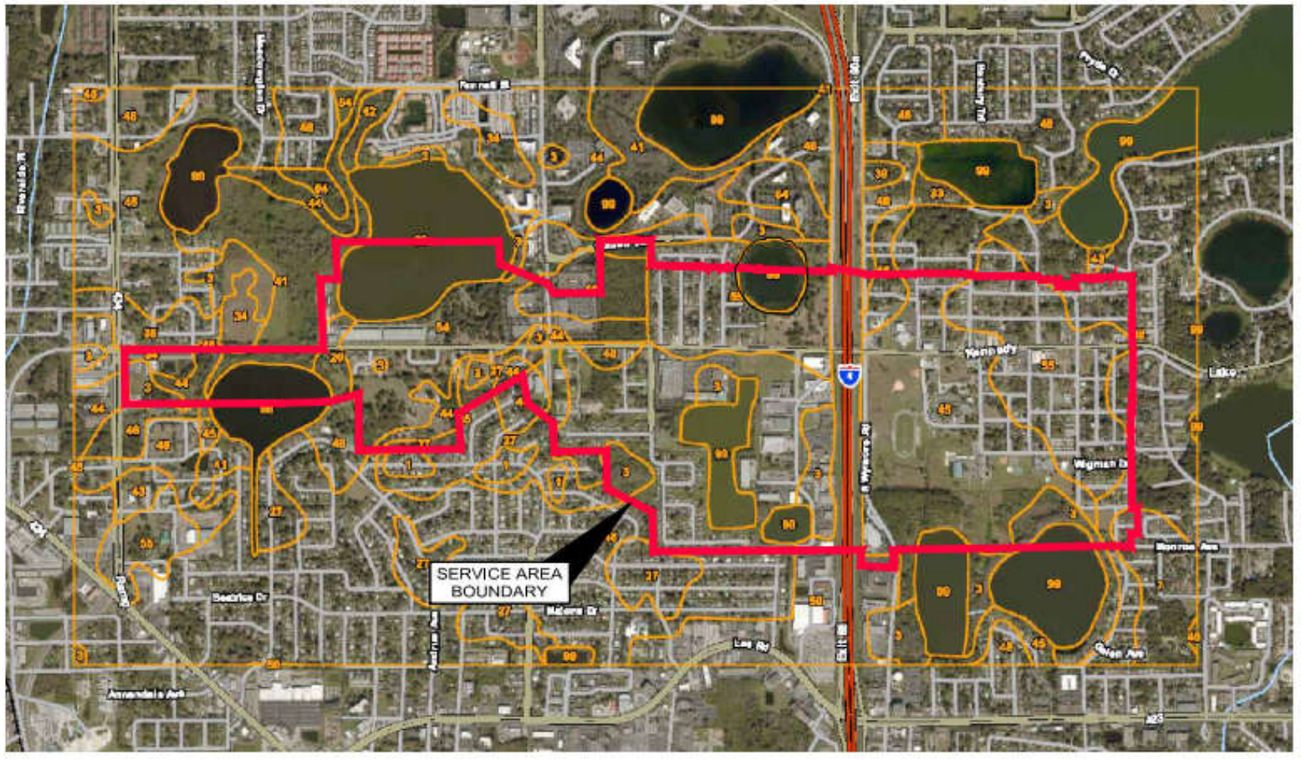
The Eatonville Historic District, just east of Interstate 4, is registered in the National Register for Historic Places. The Historic District encompasses roughly 48 buildings and is bounded by East Avenue, Eaton Street, Clark Street, Fords Avenue, Wymore Road, and Ruffel Street. There are no known archeological sites in the Town of Eatonville.

2.9 Flood Plain

The majority of Eatonville lies in areas of minimal flood hazard, but still there are several areas within Eatonville identified by the Federal Emergency Management Agency (FEMA) to have potential for flooding in a 100-year storm event. The potential areas are subject to rising waters due to proximity to a nearby lake.

Figure 2-4 presents the FEMA Flood Map of Eatonville, which present areas potentially subject to flooding. Flood Zone A and AE represent the 100-year storm event flood levels. There are three (3) areas in the AE Zone or 100-year floodplain, all of which are bordering the lakes surrounding or within Town Limits. Surrounding Lake King and Lake Bell are flood hazard areas. The majority of Eatonville

FIGURE 2-3: Town of Eatonville Soils Map

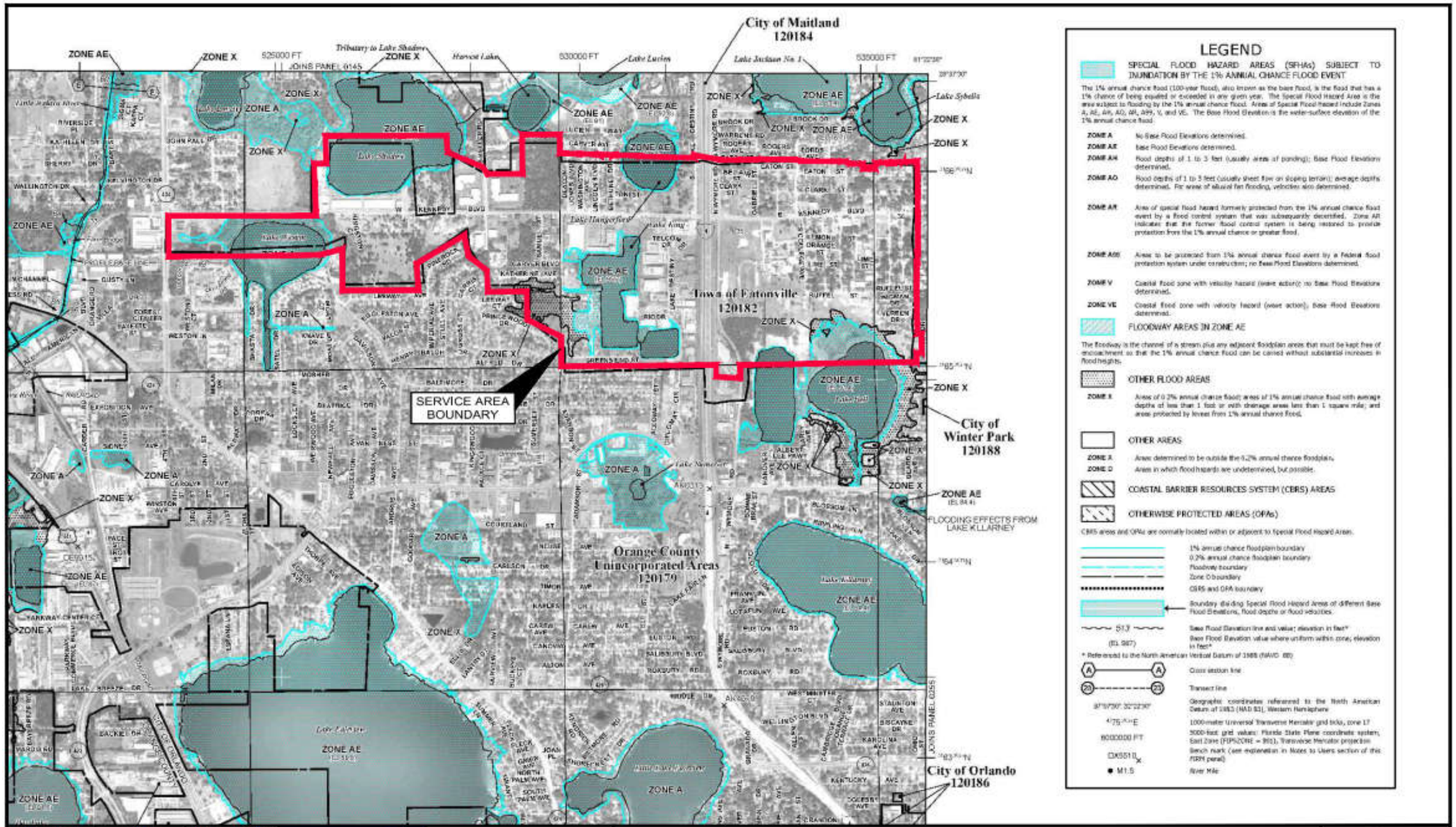


MAP UNIT/SOILS LEGEND

Map Unit Symbol	Map Unit Name
1	Arents, nearly level
3	Basinger fine sand, depressional, 0 to 1 percent slopes
7	Candler-Urban land complex, 0 to 5 percent slopes
20	Immokalee fine sand
27	Ona-Urban land complex
33	Pits
34	Pomello fine sand, 0 to 5 percent slopes
35	Pomello-Urban land complex, 0 to 5 percent slopes
37	St. Johns fine sand
39	St. Lucie-Urban land complex, 0 to 5 percent slopes
41	Samsula-Hontoon-Basinger association, depressional
42	Sanibel muck
43	Seffner fine sand, 0 to 2 percent slopes
44	Smyrna-Smyrna, wet, fine sand, 0 to 2 percent slopes
45	Smyrna-Urban land complex
46	Tavares fine sand, 0 to 5 percent slopes
48	Tavares-Urban land complex, 0 to 5 percent slopes
50	Urban land
54	Zolfo fine sand, 0 to 2 percent slopes
55	Zolfo-Urban land complex
99	Water

Designed by:	RMG	Date: 1/17/24	cph www.cphcorp.com	*Building Better Communities Together* 1117 East Robinson Street Orlando, FL 32801 Ph: 407.425.0452	SOILS MAP TOWN OF EATONVILLE MASTER WATER UTILITIES PLAN	Figure 2-3
Drawn by:	GCM	Job No. E6614				
Checked by:	RMG	File: Soils Map				
Approved by:	RMG	© 2024				
Scale:	N.T.S.					

FIGURE 2-4: Town of Eatonville FEMA Flood Map



Designed by:	RMG	Date: 1/17/24	cph www.cphcorp.com	*Building Better Communities Together* 1117 East Robinson Street Orlando, FL 32801 Ph: 407.425.0452	FEMA MAP TOWN OF EATONVILLE MASTER WATER UTILITIES PLAN
Drawn by:	GCM	Job No. E6614			Figure 2-4
Checked by:	RMG	File: FEMA MAP			
Approved by:	RMG	© 2024			
Scale:	N.T.S.				

is within Zone X floodplain, which is known as areas outside of the 500-year floodplain or will have minimal flooding.

Areas below the 100-year flood requirements are subject to development standards and restrictions set forth in the Land Development Code. Development or redevelopment of lands throughout Eatonville are subject to various requirements of the Land Development Code. Regulations for development or redevelopment also require design of stormwater systems to not only meet Eatonville's requirements but also the criteria of FDEP and SJRWMD.

Eatonville is required by SJRWMD to restrict runoff to pre-development conditions. The combination of the above requirements governs the limitations of intensity and density of development or redevelopment in Eatonville of flood prone lands.

Table 2-1 present the approximate well location ground elevations relative to the FEMA 100-year flood plain elevations. The existing constructed well head assembly elevations are above the 100-yr flood plain elevations. **Hence, the existing wells comply compliance with FDEP requirements**.

TABLE 2-1: Summary Well Ground Surface Elevations Relative to 100-yr Flood Elevations

PARAMETER	Well Ground Elevation [a] (Ft. EL)	Nearby 100-year Flood Elevations [b] (Ft. EL)	FDEP Complaint (Yes/No)
Eatonville WTP			
Well 1 (East)	99	91.4 (Lake Bell)	Yes
Well 2 (West)	97	91.4 (Lake Bell)	Yes

a) Source: Google Earth elevations, January 2022.
b) Source: FEMA FIRM Flood Maps, December 2021.

2.10 Socio-Economic Conditions

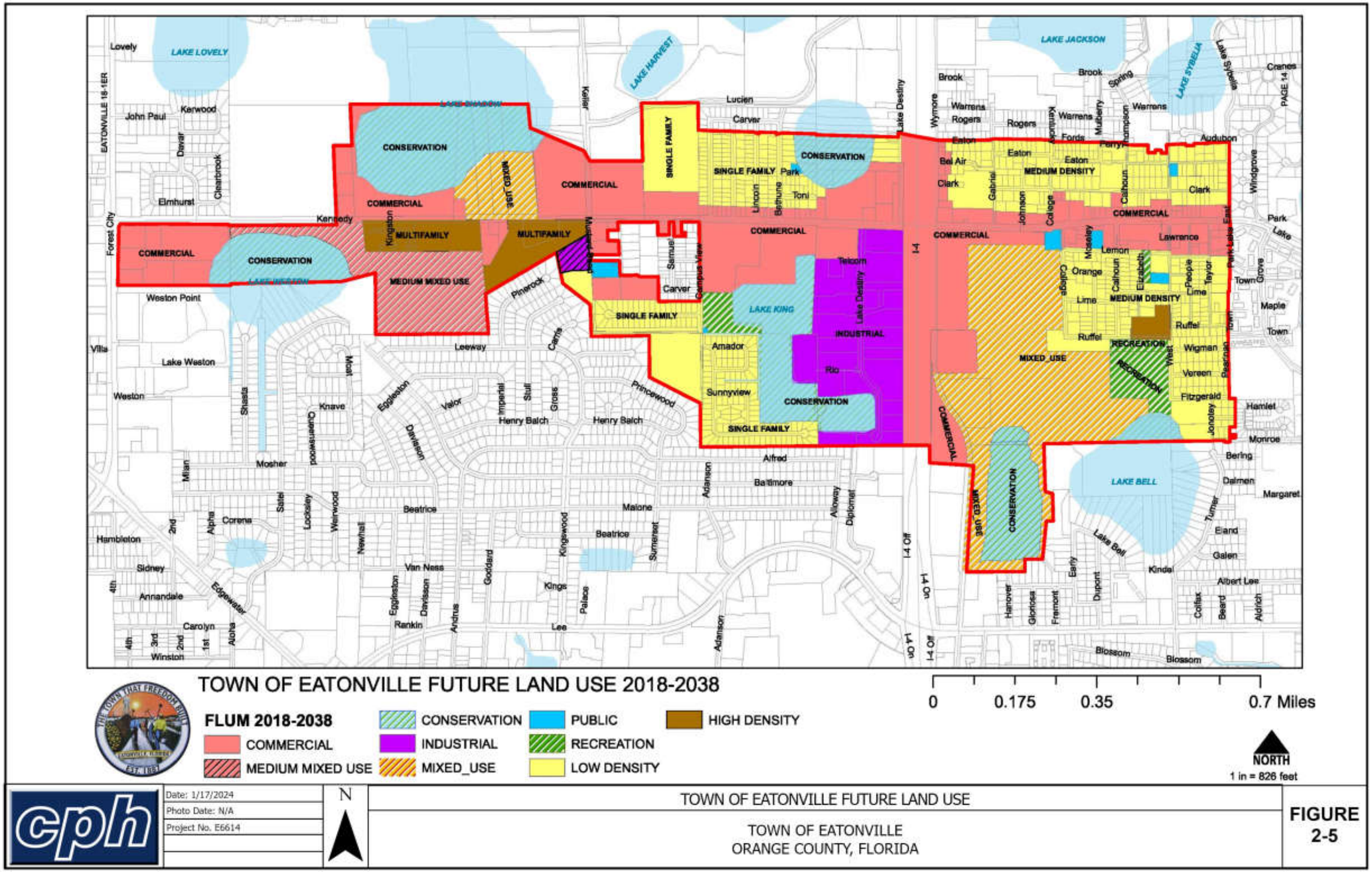
2.10.1 Population

The current estimated population is 2,988 based on 2020 US Census 3.89 persons per household for 768 active connections.

2.10.2 Land Use and Development

The service area is primarily commercial and residential with some industrial and conservation areas located around the lakes. There is one (1) Orange County public school within the Town, Hungerford Elementary. The High School has been closed for several years and the Town is currently working with a developer to develop the property. Land use is shown in the Town of Eatonville Future Land Use Zoning map presented in **Figure 2-5.**

FIGURE 2-5: Town of Eatonville Future Land Use Map



3.0 Water Supply & Quality Considerations

The Town of Eatonville is governed by the SJRWMD related to permitting of the water source allocation, well construction, conservation requirements and the pursuit of alternative water use. The Town must also comply with FDEP regulations involving design and construction of new or expanded water systems, facility clearance requirements, water quality monitoring after the PWS is placed into service and overall operation and maintenance. Consideration of both authorities' rules and regulations are required for planning future water and facility needs for the Town.

Eatonville has two (2) groundwater wells that tap into the upper Floridan aquifer (UFA) as the source of raw water for public water use. Well 1 (east) has a depth of 601 ft and Well 2 (west) has a depth of 601 ft. The wells are permitted to pull water from the UFA.

3.1 Characteristics of the Floridan Aquifer for Eatonville Source Water

The Floridan Aquifer is the primary source of potable water for most utilities in central Florida. The Floridan aquifer is a series of limestone formations, up to hundreds of feet in thickness, which lie beneath the surficial/sediment aquifer.

The Floridan aquifer is recharged by infiltration of rainwater through permeable surface sands into the uppermost limestone formations. Discharge from the Floridan aquifer occurs naturally through artesian springs and artificially through wells, which penetrate the surficial aquifer typically with steel casings. The Surficial aquifer, Floridan aquifer and aquifer "recharge" are described in more detail in the following sections.

3.1.1 Surficial Aquifer System

The unconfined Surficial Aquifer System (SAS) in the area consists of fine sands. The surficial aquifer also acts as a large filtering bed for purifying water before surface water recharges the Floridan Aquifer. The undifferentiated deposits extend from land surface to approximately 50 feet below land surface (bls). The base of the SAS is formed by layers of clay and limestone associated with the underlying Hawthorn Group. Eatonville's production well casing penetrate through and exclude the SAS.

3.1.2 Upper Confining Unit

The mixture of clay and sand in the lower part of the SAS, known as the upper confining unit (UCU), forms a semi-confining bed that impedes the exchange of water between the surficial aquifer and Floridan aquifer. The sandy material of the surficial aquifer and the clayey materials of the confining bed, have an important function in the hydrology of Central Florida. The parts of the UCU that are permeable, readily store water that infiltrates from the land surface and transmits into the Floridan Aquifer as natural recharge.

The UCU in the area extends from approximately 50 ft bls to 100 feet bls. The UCU includes the Hawthorn Group of sediments, which are composed of stiff green clay interbedded with sand, silt, soft clayey limestone and some hard limestone fragments, as well as the low permeability sediments of the Ocala Limestone. The UCU effectively inhibits vertical movement of water between the overlying surficial aquifer and the underlying Upper Florida Aquifer System (UFAS). The casings for Eatonville's production wells penetrate through the UCU.

3.1.3 Floridan Aquifer System

The Floridan Aquifer System (FAS) in the area extends from 100 ft bls to at least 2,100 ft bls and is composed of the Ocala Limestone, Avon Park Formation, Oldsmar Formation and part of the Cedar Keys Formation. The FAS contains two (2) permeable zones, the Upper Floridan Aquifer (UFA) and Lower Floridan Aquifer (LFA), which are separated by a thick sequence of confining units.

The Upper Floridan Aquifer System (UFAS) extends to approximately 750 ft bls, which occurs at the upper contact of the Ocala Limestone and the Avon Park Formation. The highest transmissivity interval occurs from 450 ft bls to 570 feet bls and is composed of hard, dense dolomite with some quartz sand and clay present in fractures. Moderately permeable beds of hard, moldic dolomite and soft, weathered clayey limestone characterize the remainder of the UFAS.

The top of the Lower Floridan Aquifer System (LFAS) occurs at the lower contact of the Avon Park Formation and extends to approximately 2,100 feet bls. The LFAS is generally less permeable than the UFAS aquifer and the water produced can be highly mineralized and/or saline; however, the LFAS is relatively fresh water to the base of the system in central Florida.

The Floridan Aquifer is a highly productive aquifer, yielding water quantities for the Town of up to 1,650 gallons per minute per test yield condition reported in Sanitary Survey. The water in the Floridan Aquifer is under pressure due to overlying semi-confining beds which means that, in a tightly cased well penetrating the aquifer, the water will rise above the top of the aquifer. The level that the water rises to defines the potentiometric surface of the aquifer at that well. The Floridan Aquifer, like the shallow water table aquifer, generally fluctuates to a high level in October and a low level in May.

3.1.4 Aquifer Recharge

Groundwater recharge is a naturally occurring step of the Earth's hydrologic cycle. As water is discharged from the aquifer through pumping and seepage, more water is simultaneously replaced through percolation. Recharge is a function of the head differences between the surficial aquifer and the artesian aquifer and is very dependent on local conditions such as soil characteristics, potentiometric surfaces and precipitation.

Groundwater and surface water levels in the area are generally at or near the elevation of the Floridan Aquifer potentiometric surface. Typically, recharge to the Floridan Aquifer is restricted to areas where the elevation of the water table is greater than the elevation of the potentiometric surface of the confined aquifers. The resulting low-pressure difference, combined with the nature of the surficial aquifer sediments, indicates that the region is considered a good recharge area to the Floridan Aquifer, ranging from 3-20 in/yr.

3.2 Consumptive Use Permit

Withdrawal of drinking water from the Florida Aquifer is regulated by the SJRWMD. The process of obtaining allocations from the SJRWMD results in receiving a Consumptive Use Permit (CUP). **The Town was issued CUP No 3407 in 2012. The Town has a 20-year permit that expires in 2032 with permitted maximum annual ground water withdrawals that cannot exceed 0.400 mgd AADD.**

3.3 Source Water Quality

Generally, the Town's water quality is considered good for finished water quality. The Town's water system is classified as a "community water system (CWS)" under FDEP criteria. **The CWS classification requires the Town to sample finished water and submit the results to the entire CWS customer base through a "Consumer Confidence Report" (CCR) on an annual basis.**

3.0 Water Supply & Quality Considerations

The CCR summarizes the concentrations of water quality samples detected during the required testing period. The 2022 results were below the maximum contaminant levels (MCL's) for currently regulated sampling parameters except for disinfection by-products. A summarization of the Town's water quality results and the relation to the maximum contaminate level (MCL) in the CCR is shown in **Table 3-1**. A copy of the 2022 CCR is provided in **Appendix B**.

Based on evaluation of the current rules and the Town's water quality result, the current or future water quality rules are not anticipated to cause the Town to change the existing treatment methodology, except for HAA5 and TTHMs. Water quality level should remain sustainable beyond the 2043 planning period.

Table 3-1: Abbreviated Finished Water Quality Summary - 2022

Parameter	Unit	MCL	Eatonville Finished Water
Sodium	ppm	160	17.5
Chlorine	ppm	4	0.3 to 1.4
Haloacetic Acids (HAA5)	ppb	60 LRAA	38 to 80
Total Trihalomethanes (TTHM)	ppb	80 LRAA	53 to 106
Copper	ppm	1.3	0.417

3.4 Groundwater Contamination and Land Use

According to FDEP there are no areas delineated for groundwater contamination within Eatonville. However, there is an active DEP Cleanup Site and a Waste Cleanup Site. The land use surrounding a water supply site should be a major consideration in the selection of new sites, and in evaluating the potential for the contamination of existing sites. The following summarizes the two (2) cleanup sites:

1. DEP Cleanup Site is located on the Macedonia Missionary Baptist Church property on the south side of Kennedy Blvd. There was a leaking storage unit for petroleum from a gas station that is now demolished. Currently, the site is still being monitored and steps are being taken for adequate cleanup.

2. Waste Cleanup Site is located on the west side of Interstate 4 off Lake Destiny Drive. The site was added to the EPA's database in January 2017. Upon initial screening, the groundwater migration of the contaminants is a pathway of concern; however, no plume has been determined for the site. It is unknown how rapidly groundwater will migrate outward from the contaminated site. The Town's two (2) production wells are located within a half of a mile from the site. Therefore, any new wells should be located up gradient of the Waste Cleanup site until the plume is determined.

4.0 Existing Potable Water System Overview

Eatonville uses groundwater to meet potable water and fire protection demands. Eatonville currently owns, operates, and maintains Public Water System (PWS) No. 3480327. **Figure 4-1** presents map of Eatonville's PWS system facilities.

4.1 Eatonville Public Water System

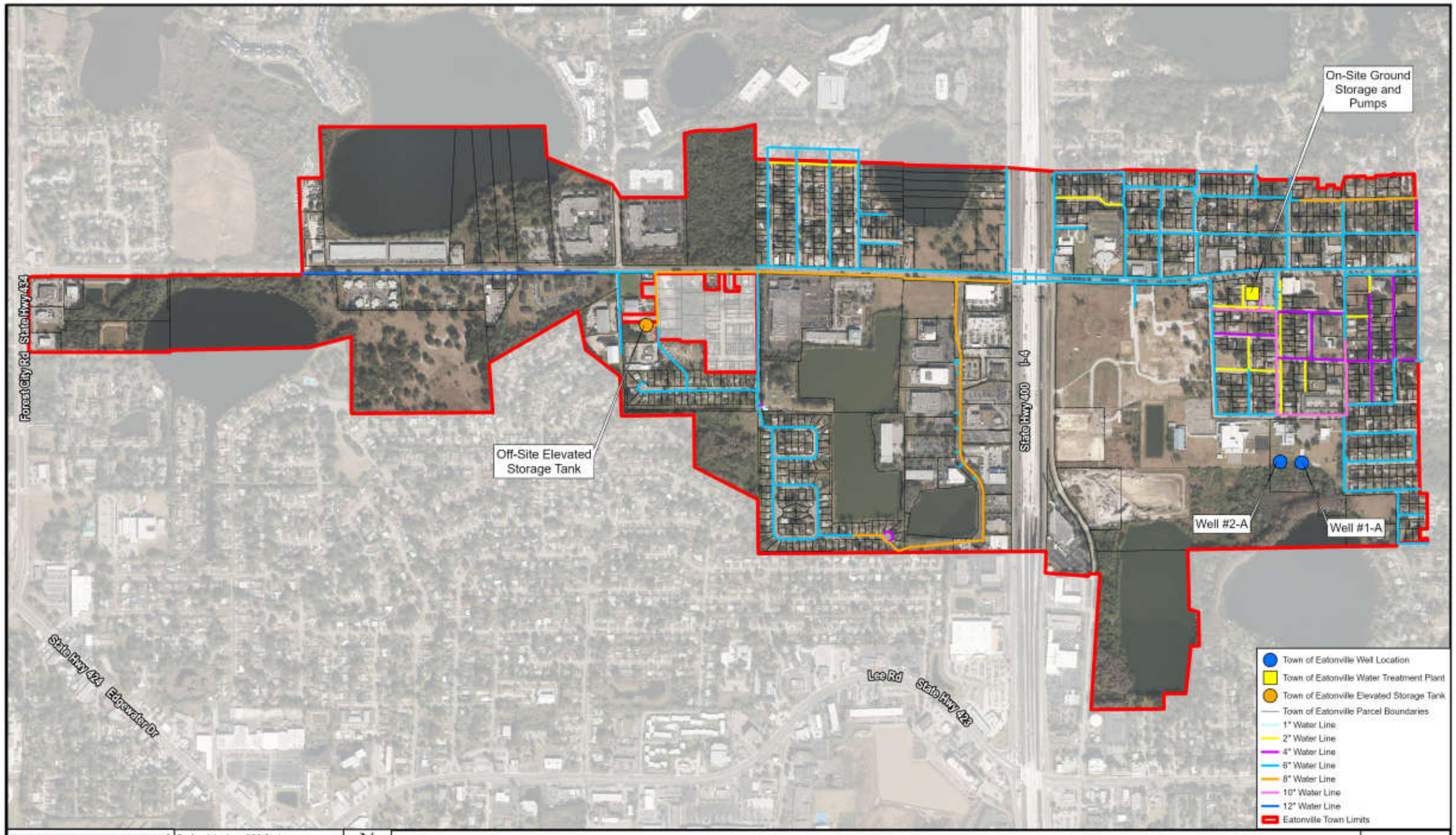
PWS No. 3480327 is a Category 4 Class C Community system permitted by FDEP with a WTP max-day design capacity of **1.44-MGD**. **Appendix C** presents the 2017 FDEP Sanitary Survey Report for Eatonville's PWS. The Eatonville WTP is supplied by two (2) active upper Floridan aquifer wells with permitted allocations provided in the SJRWMD CUP No. 3407.

In 2022, the water utility served approximately 768 active service connections (2,989 people) delivering approximately 0.262 MGD of potable water, on an annual average daily demand (AADD) basis.

The Eatonville WTP is a typical central Florida treatment facility consisting of ground water wells, cascade tray aeration, chlorine disinfection, storage, and high service pumping. The high service pumps (HSPs) maintain a water system pressure of approximately 52 psi with variable frequency drives (VFD). The water system consists of the following components:

- Two (2) Upper Floridan Aquifer Ground Water Wells
- One (1) Free Chlorine Chemical Feed System for Primary and Secondary Disinfection
- One (1) on-site 200,000-gallon On-Site Ground Storage Tank (GST) equipped with a 1,000-gpm cascade tray aerator (CTA)
- Three (3) High Service Pumps (HSPs) (two (2) 500 gpm pumps with variable frequency drive motors and one (1) 800 gpm pump with a constant rate motor for fire flow)
- One (1) 200,000-gallon Off-Site Elevated Storage Tank (EST)
- Approximately 68,346 LF of water distribution mains ranging from 2 to 12 inches

FIGURE 4-1: Town of Eatonville Potable Water Service Area Facilities



Scale:	1 inch = 800 feet
Date:	1/12/2024
Photo Date:	2021
Project No.	E6614
GIS:	LEC

N

TOWN OF EATONVILLE WATER SERVICE AREA FACILITIES MAP

TOWN OF EATONVILLE
ORANGE COUNTY, FLORIDA

FIGURE 4-1

4.2 Eatonville WTP

The Eatonville WTP is located at 332 East Kennedy Boulevard, Eatonville, Florida 32751. **Figure 4-2** shows an aerial of the Eatonville WTP. **Figure 4-3** presents a site plan of the Eatonville WTP. The site elevation of the WTP is approximately 146 feet EL.

Figure 4-4 presents the process flow diagram of the Eatonville WTP. The WTP is controlled by a Supervisory Control and Data Acquisition (SCADA) system. Emergency power is provided by diesel driven power generators; one (1) 60 kW off-site at Well No. 1 and one 150 KW on-site at the WTP site.

During normal operation, water is pumped from the wells into the GST. Liquid chlorine is injected into the GST at a target chlorine residual of 2.2 mg/L per 2017 Sanitary Survey. Treated water is stored in the GST and pumped into the distribution system to meet demands at preset pressures.

4.2.1 Permitted Raw Water Supply Sources

Eatonville is currently permitted by SJRWMD under CUP No. 3407-4 to withdrawal up to 146 million gallons per year (MGY), which equates to an AADD of 0.400 MGD until 2032. Eatonville's CUP was issued on December 18, 2012 and expires on December 18, 2032.

Currently, Eatonville has two (2) active potable water supply groundwater wells that draw from the Upper Floridian Aquifer. Both wells are located off-site approximately 1,600 linear feet south of the WTP. The off-site wells ground elevation is approximately 97 feet EL.

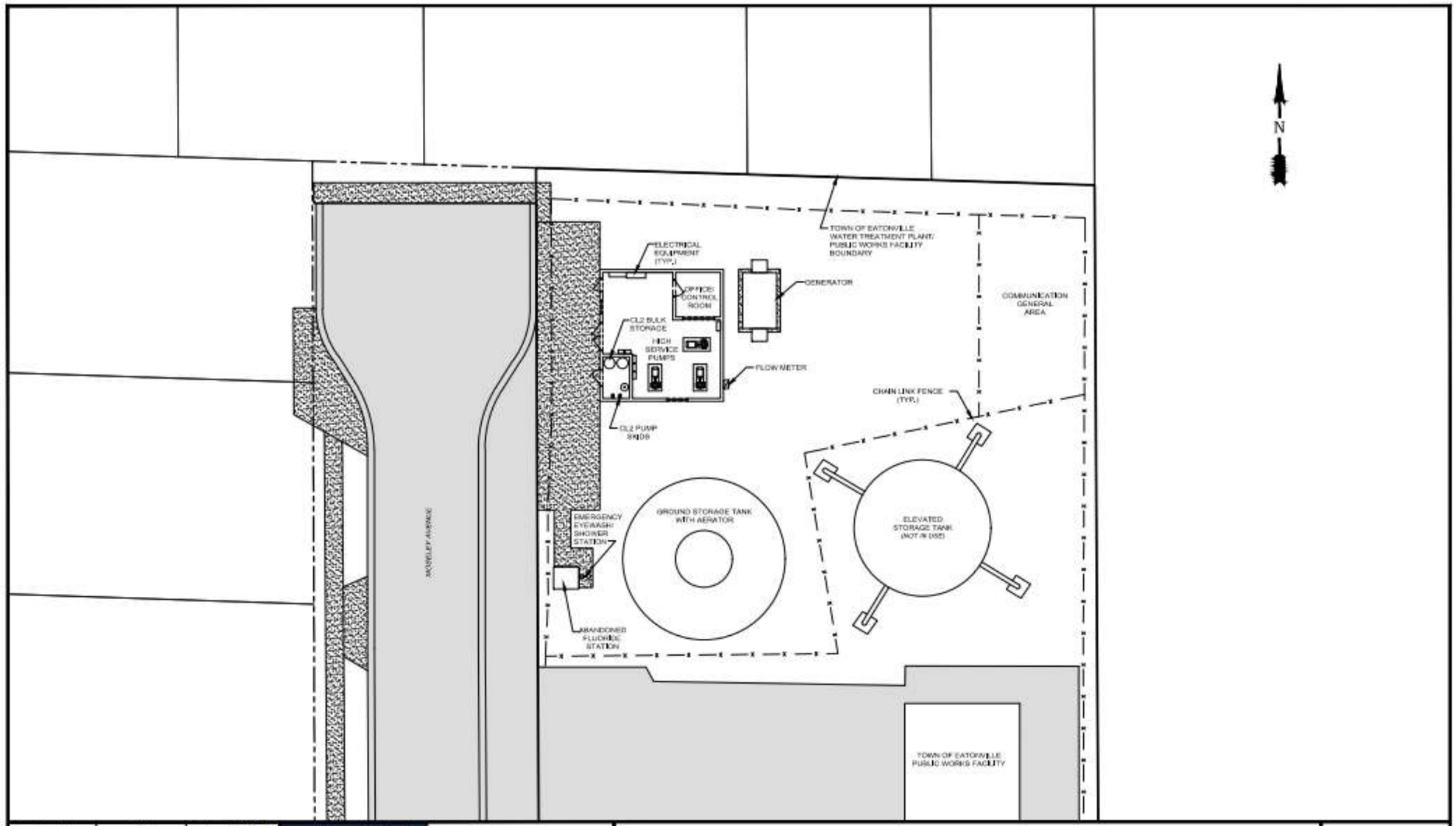
Table 4-1 presents characteristics and inventory of the existing groundwater production facility wells and pumps that are currently in service (active). The total actual yield well capacity is approximately 1,200 gpm, while the firm actual yield well capacity is 600 gpm (largest well off-line). The wells turn on automatically when the water level in the GST drop to a preset low level. Each wellhead discharge assembly is equipped with an air release valve (ARV), check valve, water specialties propellor flow meter, and isolation gate valve (**Photo 4-1**). The following maintenance is needed for the wells:

- Repack well shaft on Well 1A to stop excess leaking.
- Replace inoperable propeller flow meter on Well 2A.
- Exercise generator on Well 1 on a frequent basis.

FIGURE 4-2: Aerial of the Eatonville WTP

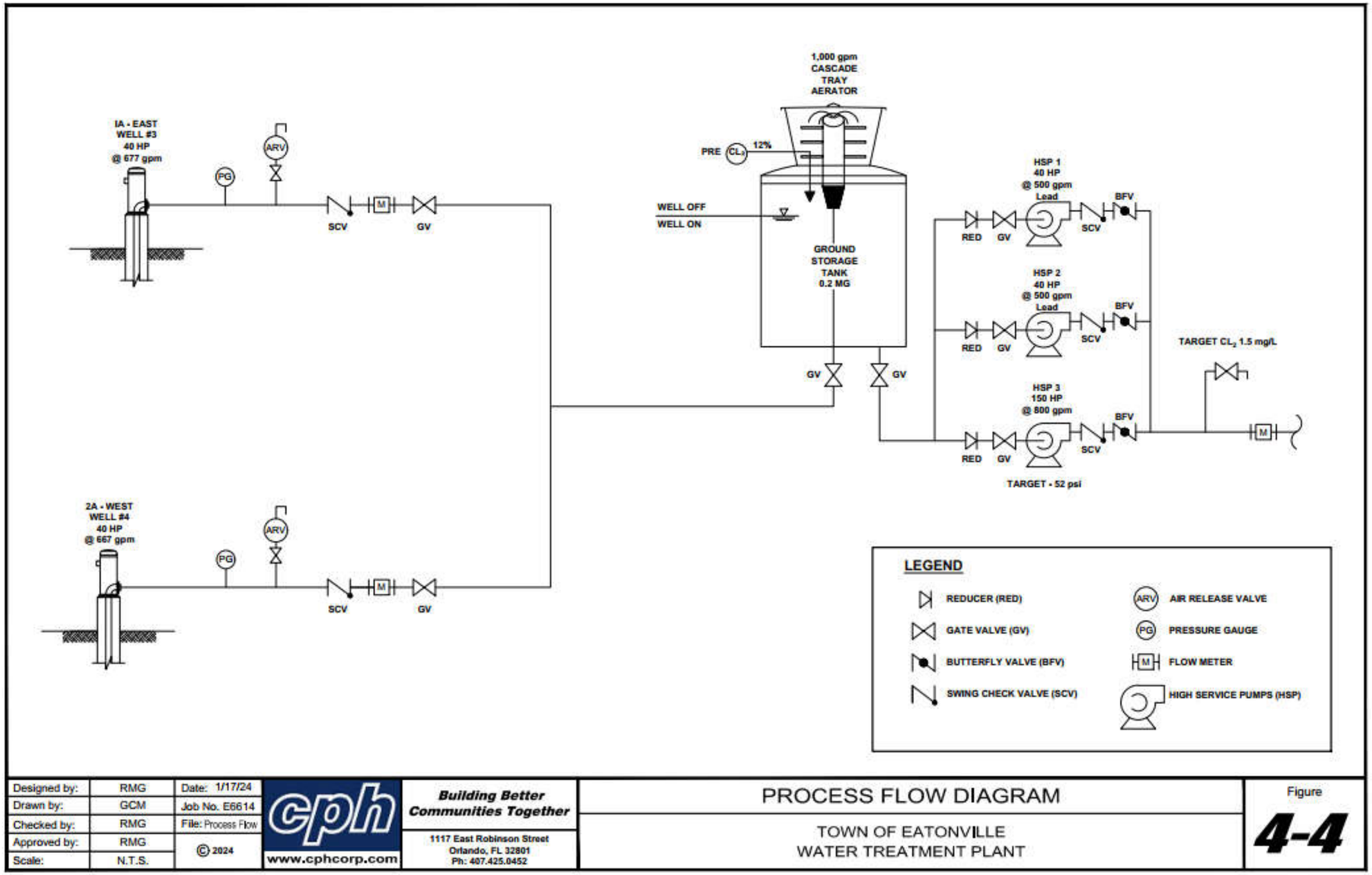
(Source: Orange County Property Appraisers 1-16-2023)

FIGURE 4-3: Eatonville WTP Site Plan



Designed by:	RMG	Date: 1/17/24	cph www.cphcorp.com	Building Better Communities Together 1117 East Robinson Street Orlando, FL 32801 Ph: 407.425.0452	EXISTING WATER TREATMENT PLANT SITE PLAN TOWN OF EATONVILLE MASTER WATER UTILITIES PLAN
Drawn by:	GCM	Job No. E6614			Figure 4-3
Checked by:	RMG	File: Process Flow			
Approved by:	RMG	© 2024			
Scale:	1" = 20'				

FIGURE 4-4: Eatonville WTP Process Flow Diagram



Designed by:	RMG	Date: 1/17/24	cph www.cphcorp.com	*Building Better Communities Together* 1117 East Robinson Street Orlando, FL 32801 Ph: 407.425.0452	PROCESS FLOW DIAGRAM TOWN OF EATONVILLE WATER TREATMENT PLANT
Drawn by:	GCM	Job No. E6614			Figure 4-4
Checked by:	RMG	File: Process Flow			
Approved by:	RMG	© 2024			
Scale:	N.T.S.				

TABLE 4-1: Inventory of Existing Groundwater Well Pumping Facilities [a]

PARAMETER		Eatonville WTP	
Well	**Well Name**	1A-East	2A-West
	SJRWMD Well ID No.	3	4
	SJRWMD Station No.	38635	38634
	FDEP Florida Unique Well ID No.	AAI5809	AAI5812
	Aquifer	Upper Floridan	Upper Floridan
	Year Drilled	2005	2005
	Depth Drilled (ft.)	601	601
	Casing Length (ft)	80/205	62/207
	Casing Diameter (in.)	18/12	18/12
Pump	**Type**	Vertical Turbine	Vertical Turbine
	Manufacturer	Deming	Deming
	Model	XH10	XH10
	Rated Capacity (gpm)	900	900
	Actual Yield (gpm) [b]	677	667
	Motor Horsepower	40	40

a) Source: FDEP Sanitary Survey, August 23, 2017

b) Source: Florida Rural Water Association - Well Pump Flow Meter Test - June 6, 2023.

Photo 4-1: Wellhead Discharge Assembly

4.2.2 On-site Finished Water Storage and Aeration

Table 4-2 present an inventory of the storage facilities at the Eatonville WTP. Eatonville WTP has one (1) on-site 200,000-gallon pre-stressed concrete ground storage tank (GST) equipped with a 1,000-gpm aerator mounted on the dome riser (**Photo 4-2**). The GST stands at a height of 32 feet with a diameter of 32 feet. The raw groundwater flows by gravity over the CTA for partial removal of hydrogen sulfide (H_2S) (associated with a rotten egg smell). Aerated water then falls into the GST for storage prior to pumping into the water distribution system.

Appendix D presents the 2015 condition assessment of the GST. The following maintenance is needed for the GST:

- Repair areas of exposed reinforcement rebar on exterior dome roof.
- Install new screen on integrated vent.
- Install security shrouds on integrated vents to prevent contamination.

TABLE 4-2: Inventory of On-Site Storage Facilities

Photo 4-2	PARAMETER	Eatonville WTP
	Tank No.	GST-01
	Type	Prestressed Concrete
	Contractor	CROM
	Year Constructed	Unknown
	Aerator	1,000 gpm
	Capacity (Gallons)	200,000
	Low/Low/Low Level – HSPs off	10 feet
	Low/Low Level - Alarm	15 feet
	Low Level - Wells On	17 feet
	High Level - Wells Off	23 feet
	High/High Level - Alarm	24 feet

4.2.3 Chemical Treatment – Chlorine Disinfection

The Eatonville WTP currently injects 12% sodium hypochlorite (liquid chlorine) for primary disinfection of the aerated water in the GST. The liquid chlorine is injected at the base of the CTA basin. The WTP uses two (2) 17 gpd Stenner peristaltic chemical feed pumps, each feed pump dedicated to each well and able to serve as a back-up via isolation valve. The liquid chlorine is stored in two (2) 150-gallon HDPE storage tanks set in a containment area.

The following maintenance is needed for the chlorine feed system (**Photo 4-3**):

- Replumb connection of bulk storage tanks to chemical feed pumps per FDEP requirements.
- Upsize chemical feed pumps.
- Refurbish chemical feed room interior and exterior.
- Repipe bulk chemical storage tank to limit off-gassing.
- Replace room exhaust fan.

Photo 4-3: Chlorine Chemical Feed System

4.2.4 High Service Pumping

Table 4-3 present an inventory of the high service pumps at the Eatonville WTP. There are three (3) HSPs at the WTP. Two (2) rated at 500 gpm and one (1) at 800 gpm (for fire flow) with a total installed HSP capacity of 1,800 gpm (**Photo 4-4**). An 8-inch Water Specialties propeller meter is used to measure and report flow rate and volume to the FDEP. The existing propeller meter is not accurate at flow rates less than 300 gpm and should be checked for calibration,

The following maintenance is needed for the high service pumps:

- Replace propeller meter with mag meter.
- Standardize pumps and motors.
- Review HSP SCADA Control Settings.

Photo 4-4: High Service Pumping

TABLE 4-3: Inventory of Existing High Service Pumping Facilities

PARAMETER		Eatonville WTP		
Pump	Pump No.	HSP-01	HSP-02	HSP-03
	Type	End-Suction Centrifugal	End-Suction Centrifugal	End-Suction Centrifugal
	Year Installed	1981	1981	2000
	Manufacturer	Goulds	Goulds	Unknown
	Model	3765	3656M	Unknown
	Impellor	13-1/16”	13-1/16”	Unknown
	Capacity	500	500	800
	TDH	160 ft	160 ft	160 ft
Motor	Manufacturer	Teco Westinghouse	Techtopind	Unknown
	HP	40	40	50
	Duty	Variable	Variable	Constant
	RPM	Unknown	1,770	1,780
	Service Factor	Unknown	1.25	1.15

4.3 Off-Site Elevated Storage Tank

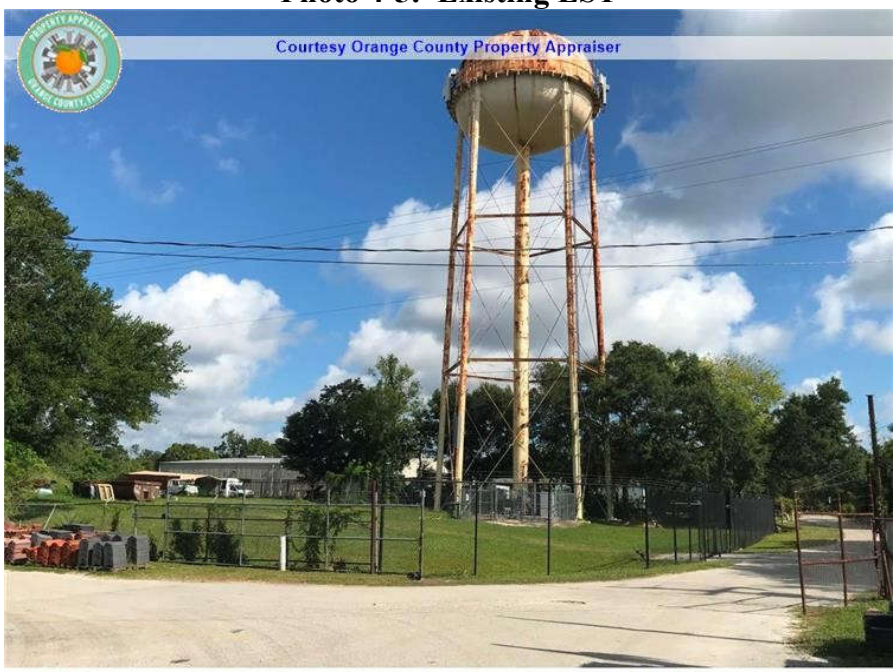
The Eatonville PWS has one (1) 200,000-gallon steel EST located off-site in the western portion of the service area at 662 W. Kennedy Blvd (**Photo 4-5**) which was constructed in 1979. The EST assists in maintaining peak hour pressure in the western distribution system. The EST is intended to supplement the HSPs rather than acting as a storage component for the distribution system. The EST equivalent "pumping capacity" is approximately 833 gpm, which increases the overall total HSP capacity to 2,688 gpm during peak demands.

The EST is at a ground elevation of approximately 100 ft EL with an overflow at approximately 224 feet EL (54 psi). Since the lead and lag HSPs at the WTP are on VFD motors, the EST will hold a steady hydraulic grade line of approximately 220 feet EL (52 psi). If the EST level drains to approximately 214.5 feet EL (48 psi) the constant rate fire flow HSP pump is actuated.

Appendix D presents the 2018 inspection report of the EST. The inspection report recommended the following maintenance for the EST:

- The Off-Site EST is over 40 years old and shows signs of significant corrosion and leaks.
- The Off-Site EST is currently scheduled for repair and refurbishment in February 2024.

Photo 4-5: Existing EST



4.4 Auxiliary Power Capacity

Table 4-4 summarizes auxiliary power supply and major equipment demands. Eatonville PWS has two (2) diesel generators. One (1) at the WTP, one (1) off-site at Well 1A.

The Eatonville generator supplies sufficient stand-by power to meet the PWS's electrical demands. Whereas the off-site well generator has just enough power to meet the well's electrical demands, including supply wells and high service pumps. The generators are equipped with automatic transfer switches (ATSs) that call for automatic generator start-up in the event of commercial power loss.

The following maintenance is needed for the generators:

- Exercise the generators on a regular basis and repair as necessary.
- Evaluate ability of well generator to power both wells.

TABLE 4-4: Inventory of Auxiliary Power

PARAMETER		Eatonville WTP	Well 1A + Well 2A
Generator	Manufacturer	Unknown	Generac
	Model No.	Unknown	Unknown
	Year Installed	Unknown	Unknown
	Size (kw)	150	60
	Equivalent Size (hp)	200	80
Major Equipment	Well Motor (hp)	---	80
	Treatment (hp)	2	---
	HSP Motor (hp)	130	---
	Total Draw (hp)	**132**	**80**
Generator Total Surplus/Deficit (hp)		+68	0

4.5 Existing Distribution System

Table 4-5 presents an inventory of distribution system piping. Eatonville has approximately 13 miles of potable water mains ranging from 2 to 12 inches in diameter. The distribution system is not considered built-out, as there are several new developments proposed or being constructed.

The growth increase in population is causing the projected water demands to be greater than past projections, which is of concern to the Town. There is approximately 28,434 LF of AC pipe, which the Town consistently has challenges to repair. Also, pipes less than 6-inchs are not sufficient to meet fire flow demands. As a result, the following is recommended for the distribution system:

- Develop a Repair and Replacement (R/R) Programs for the distribution system to increase system confidence for the following:
  - Replace AC pipe
  - Replace Small pipe (< 6-inches)

TABLE 4-5: Inventory of Distribution System Piping

Diameter (in)	Length Ductile Iron (ft)	Length Asbestos Cement (ft)	Length PVC (ft)	Length All Diameters (ft)	Percent Diameter (%)
2	-	3,586	1,423	**5,009**	**7.3%**
4	-	4,589	469	**5,058**	**7.4%**
6	130	17,374	27,579	**45,083**	**66%**
8	-	-	7,666	**7,666**	**11.2%**
10	-	2,885	-	**2,885**	**4.2%**
12	-	-	2,645	**2,645**	**3.9%**
Total All Materials	**130**	**28,434**	**39,782**	**68,346**	**100%**
Material (%)	**<0.2%**	**42%**	**58%**	**100%**	

5.0 Potable Water Demand Projections

Water use in the Town is predominately residential with minimal commercial/industrial type use. Currently, the Town serves potable water to approximately 800 service connections (3000 persons). Although the Town boundaries are unlikely to expand over the next twenty years, infill and densification is occurring within Town Limits. The Town identified several development areas that are expected to increase the service area population density and result in additional water demand.

Figure 5-1 presents a map of development being planned for construction within Town limits including developable vacant parcels greater than 1 acre. **Table 5-1** presents the status planned development. Currently, the Town has three (3) development projects in the potable water service area that currently under construction plus the Hungerford Project which is currently in the conceptual planning stage.

Current groundwater supply water use is below the current CUP withdrawal allocation. However, the new developments are projected to increase potable water demand and require a CUP modification. At this time, Eatonville has not requested an increase in permitted allocation based on population projections associated with the current and proposed development projects.

Potable water demand projections were developed using average historical potable water demands over the last 5 years. Potable water demands were projected based on total service area residential population growth. **Appendix D** presents population growth projections used to project potable water demands. Population projections were created using new development plus infill of vacant lots greater than 1 acre.

5.1 Historical Potable Water Demand Allocations

Table 5-2 presents historical potable water demands from January 2015 to December 2022 compiled from monthly operational reports (MORs). Eatonville's Comprehensive Plan has adopted a 300 gallons per day per ERU level-of-service (LOS) for new development. The adopted LOS standard for potable water is typically used as the basis for determining availability of facility capacity for new development.

However, the 5-year average daily capita rate is 99 gpcd, which results in 385 gallon per day per ERU (99 gpcd * 3.89 persons per connection). Therefore, the future demand projections of new development are based on the higher historical ERU demand.

FIGURE 5-1: Town of Eatonville Ongoing and Proposed Development

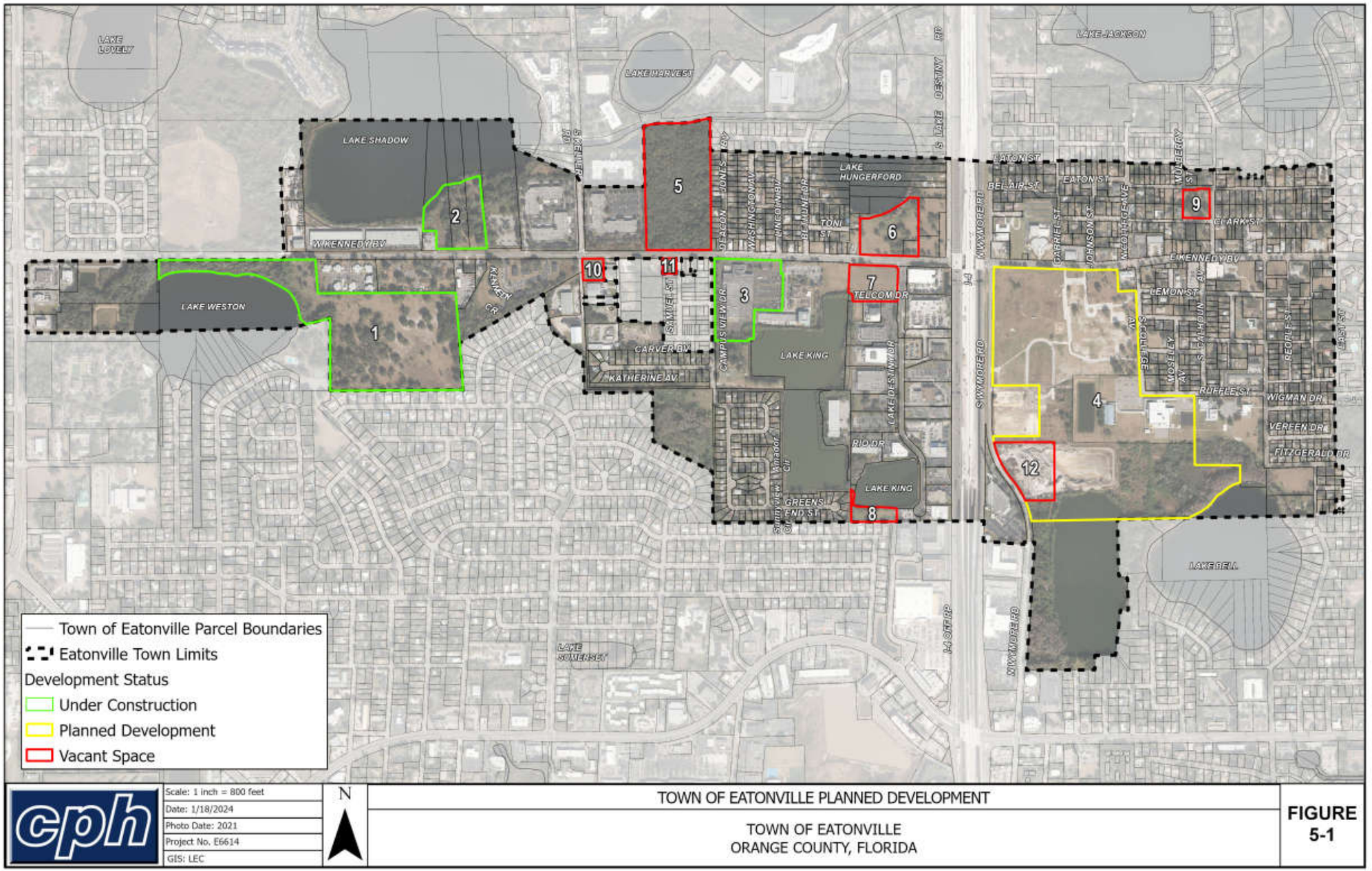


TABLE 5-1: Eatonville Planned Development

Project ID	Name	Type	Status	Acres
1	Lake Weston Apartments	Multi Family	In Construction	49.5
2	Enclave Apartments	Multi Family	In Construction	14.99
3	Host Dime	Commercial	In Construction	5
4	Hungerford Property	Mixed Use	Concept Plan	67.3
5	Bing Property	C-1, C-3, R-2	Vacant	6.36
6	Interstate Property	C-3, I-1	Vacant	3.7
7	Orra Ventures LLC	I-1	Vacant	1.63
8	339 Clark St	R-2	Vacant	1.6
9	690 W Kennedy Blvd	C-3	Vacant	0.95
10	W Kennedy	R-1	Vacant	1.0
11	BOCPS	C-3	Vacant - County Parks & Rec	17.61
12	DOT	C-2/M-U	Vacant - State Forest Parks & Rec	5.71

TABLE 5-2: Historical Potable Water Use (2015 to 2022) [a]

Year	No. of Water Service Connections [b]	Service Population [c]	Per Capita Demand (gpcd)	Annual Average Daily Demand (MGD)	Maximum Daily Demand (MGD)	MDD/ADD Peaking Factor	Peak Hour Demand [d] (gpm)
2015	686	2,669	123	0.33	0.68	2.07	940
2016	693	2,696	116	0.31	1.30	4.16	1,806
2017	700	2,723	120	0.33	1.26	3.85	1,750
2018	714	2,777	114	0.32	1.19	3.76	1,649
2019	728	2,832	111	0.32	0.71	2.24	980
2020	742	2,886	93	0.27	0.81	3.01	1,122
2021	756	2,941	90	0.26	0.60	2.27	833
2022	768	2,988	88	0.26	0.72	2.74	999
Average			**99**			**2.81**	

a) Source: FDEP PWS #3480327 Monthly Operational Reports (MORs).

b) Source: Billing Department – Active service meter connections.

c) Assumed 3.89 persons per household per 2020 US Census.

d) Assumed 2 * MDD/ADD peaking factor.

5.2 Projected Potable Water Demands

Future potable water demand allocations were projected using the historical per capita data, well pumping, high service pumping records and peaking factors applied to projected population growth in the total service area.

For projecting maximum daily demand, a historical average MDD/ADD peaking factor of 2.81 was used for the total service area. Similarly, the peak hour demand (PHD) for the potable water system was based on a historical PHD/ADD average peaking factor of 5.61.

Figure 5-2 presents the potable water service population growth projections adjusted for the new development identified by the Town's Planning Department. **Figure 5-3** presents the potable water demand projections for the total service area over a 20-year horizon. Projected potable water demands to the Eatonville PWS are projected to increase from 0.23-MGD to 0.46-MGD (100% increase) to the 2043 horizon.

Based on the water demand projections, **Table 5-3** presents the permitted and rated design capacities of the PWS to the 2043 horizon. The following are noted.

- **Plan to modify CUP allocation**. Permitted Groundwater CUP Withdrawal Allocation is projected to exceed the limit once Lake Weston and Enclave Apartments come on-line.
- **Plan to increase the PWS maximum-Day Design Capacity**. Permitted MDD design capacity is projected to exceed the limit once Lake Weston and Enclave Apartments come on-line.
- **Plan to increase well production capacity**. Currently, well production capacity is beyond 75% total (MDD + FF) and firm (MDD) well capacity.
- **Plan to increase available storage capacity**. Available storage capacity is projected to exceed the limit once Lake Weston and Enclave Apartments come on-line.
- **Plan to increase available high service pump capacity**. Available high service pump capacity is projected to exceed the limit once Lake Weston and Enclave Apartments come on-line.

FIGURE 5-2: Town of Eatonville Potable Water System Population Growth Projection

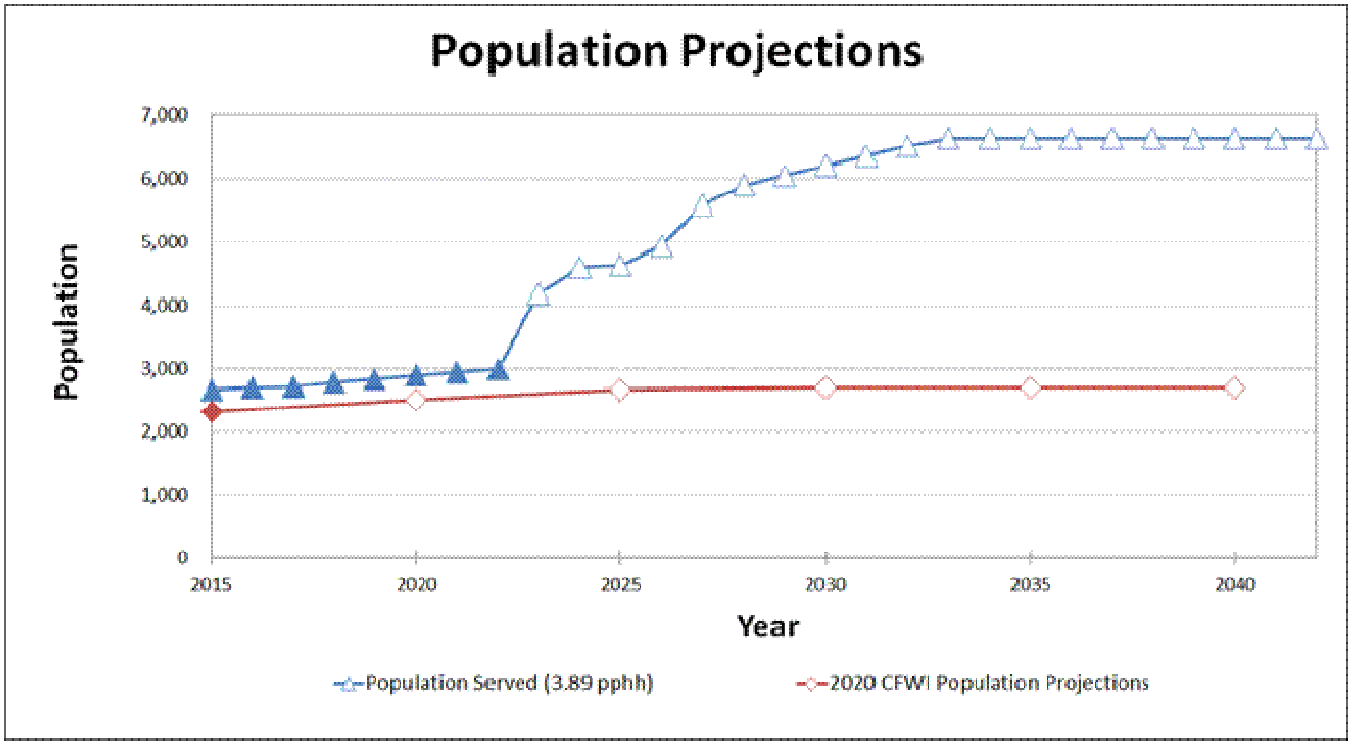


FIGURE 5-3: Town of Eatonville Potable Water Demand Projections

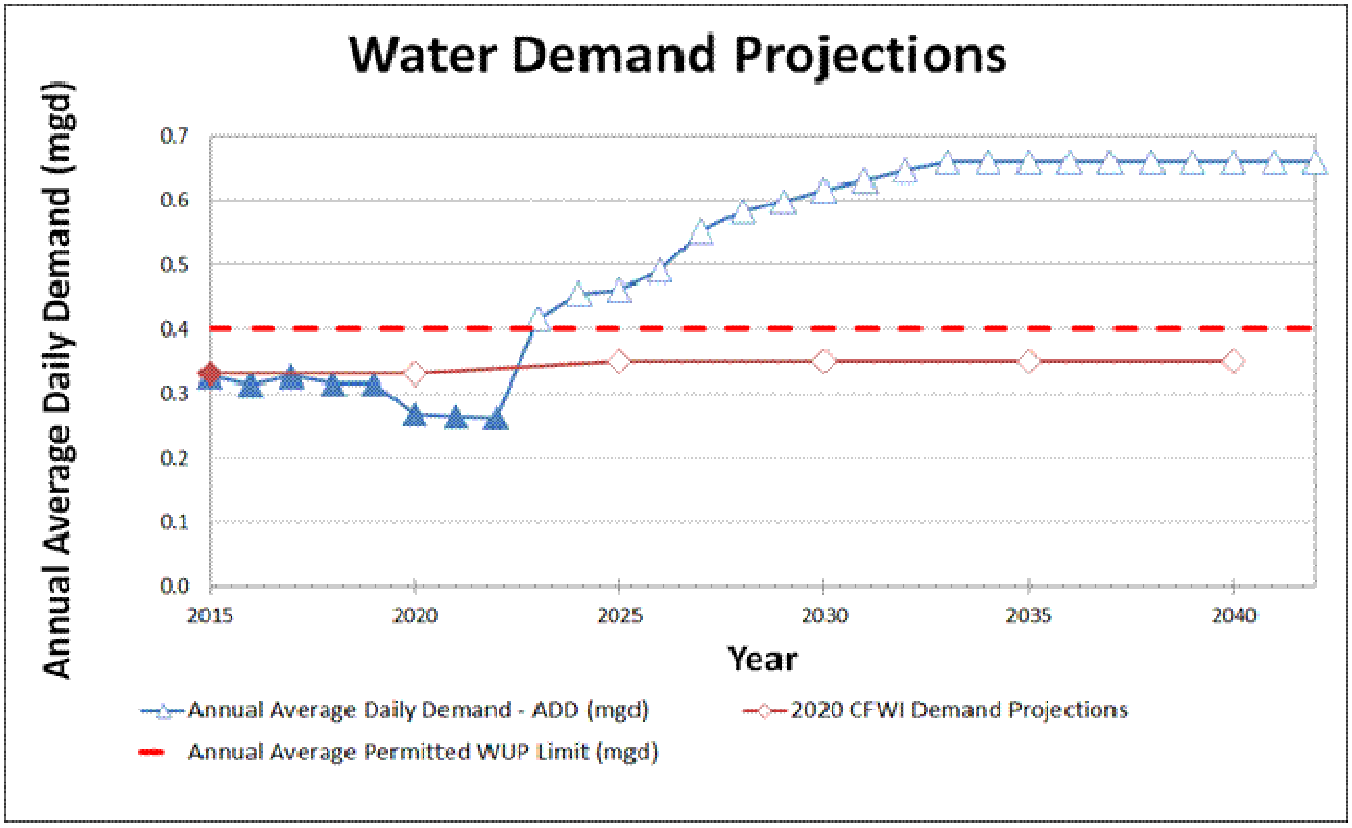


TABLE 5-3: Projected PWS Design Capacity (in 5-year increments)

PARAMETER	2015	2020	2025	2030	2035	2040	COMMENTS
Potable Water Use							
Total # of Active Service Water Connections	686	742	1,193	1,594	1,709	1,709	
Service Connections per Year	---	14	12	40	0	0	
Future Cumulative Dwelling Units			425	826	941	941	Plans for New Developments
Persons per Household (pphh) - Connection	3.89	3.89	3.89	3.89	3.89	3.89	2020 US Census = 3.89 persons per household
Per Capita Usage (gpdc)	123	93	99	99	99	99	Town of Eatonville LOS 350 gpd per ERU
Population Served (3.89 pphh)	2,669	2,886	4,641	6,201	6,648	6,648	
Annual Average Daily Demand - ADD (mgd)	0.33	0.27	0.46	0.61	0.66	0.66	
Max Day Demand - MDD (mgd)	0.68	0.81	1.29	1.72	1.85	1.85	
MDD/ADD Peaking Factor	2.07	3.01	2.81	2.81	2.81	2.81	Average 2018 to 2022
PHD/ADD Peaking Factor	4.14	6.03	5.61	5.61	5.61	5.61	2 * MDD/ADD peaking factor
PHD (gpm)	940	1,122	1,792	2,394	2,567	2,567	
2020 CFWI Population Projections	2,324	2,501	2,658	2,701	2,702	2,702	
2020 CFWI Demand Projections	0.33	0.33	0.35	0.35	0.35	0.35	
CFWI 2025 Limit	0.35	0.35	0.35	0.35	0.35	0.35	
2025 UFA Adjusted AADD	0.33	0.27	0.46	0.46	0.46	0.46	
AWS Need Beyond 2025	0.00	0.00	0.00	0.15	0.20	0.20	
Proposed Adjusted CUP Limit to 2025 Demands	0.46	0.46	0.46	0.46	0.46	0.46	Based on CWFI UFA Withdrawal Limits
Permitted Groundwater Withdrawal Allocation							
Annual Average Permitted WUP Limit (mgd)	0.40	0.40	0.40	0.40	0.40	0.40	
ADD (mgd)	0.33	0.27	0.46	0.61	0.66	0.66	
ADD WUP Surplus/Deficit (mgd)	0.07	0.13	(0.06)	(0.21)	(0.26)	(0.26)	
Percent WUP Allocation (%)	82%	67%	115%	154%	165%	165%	Begin Planning @ 90%
Rated Maximum-Day Design Capacity							
Max Day Design Capacity (mgd)	1.44	1.44	1.44	1.44	1.44	1.44	FDEP PWS No. 6530431
MDD (mgd)	0.68	0.81	1.29	1.72	1.85	1.85	
Design Surplus/Deficit (mgd)	0.76	0.63	0.15	(0.28)	(0.41)	(0.41)	
Percent Design Capacity (%)	47%	56%	90%	120%	128%	128%	Begin Planning @ 75% Capacity
Well Production Capacity (TOTAL)							
Total Well Capacity (gpm)	1,344	1,344	1,344	1,344	1,344	1,344	FGUA Meter Calibration 6/6/2023
MDD + FF (gpm)	1,470	1,561	1,896	2,197	2,283	2,283	FDEP 62-555.315(3) => Total > MDD + FF
Total Well Surplus/Deficit (gpm)	(126)	(217)	(552)	(853)	(939)	(939)	
Percent Total Well Capacity (%)	109%	116%	141%	163%	170%	170%	Begin Planning @ 75% Capacity
Well Production Capacity (FIRM - Largest Well Off-Line)							
Firm Well Capacity (gpm)	667	667	667	667	667	667	Largest Well Off-line - FGUA Meter Calibration 6/6/2023
MDD (gpm)	470	561	896	1,197	1,283	1,283	FDEP 62-555.315(3) => Firm > ADD (preferably MDD)
Firm Well Surplus/Deficit (mgd)	197	106	(229)	(530)	(616)	(616)	
Percent Firm Well Capacity (%)	70%	84%	134%	179%	192%	192%	Begin Planning @ 75% Capacity
Storage							
On-Site GST (MG)	0.20	0.20	0.20	0.20	0.20	0.20	2021 Sanitary Survey
On-Site EST (MG)	0.00	0.00	0.00	0.00	0.00	0.00	Off-Line (200,000 gal)
Off-Site EST (MG)	0.20	0.20	0.20	0.20	0.20	0.20	
Total Storage Available (MG)	0.40	0.40	0.40	0.40	0.40	0.40	
Equivalent MDD Available Storage (mgd)	1.60	1.60	1.60	1.60	1.60	1.60	FDEP 62-555.320(a) => MG = 25%MDD (mgd)
Required 25% MDD Storage (MG)	0.17	0.20	0.32	0.43	0.46	0.46	
Required Fire Flow Storage (MG)	0.12	0.12	0.12	0.12	0.12	0.12	FF = 1,000 gpm for 2 hours
Required 4-Log CT Storage (MG)	0.01	0.01	0.01	0.01	0.01	0.01	0.5 mg/L @ CT = 4 mg/L-min
Total Storage Required (MG)	0.30	0.34	0.46	0.57	0.60	0.60	
Storage Capacity Surplus/Deficit (MG)	0.10	0.06	(0.06)	(0.17)	(0.20)	(0.20)	
Percent Storage Capacity (%)	76%	84%	114%	141%	149%	149%	Begin Planning @ 75% Capacity
High Service Pumping (TOTAL)							
Installed HSP Capacity (gpm)	1,800	1,800	1,800	1,800	1,800	1,800	2021 Sanitary Survey
Required Capacity - PHD (gpm)	940	1,122	1,792	2,394	2,567	2,567	
Installed HSP Surplus/Deficit (gpm)	860	678	8	(594)	(767)	(767)	
Percent HSP Capacity (%)	52%	62%	100%	133%	143%	143%	Begin Planning @ 75% Capacity
High Service Pumping (FIRM)							
Firm HSP Capacity (gpm)	1,000	1,000	1,000	1,000	1,000	1,000	2021 Sanitary Survey
Required Capacity = MDD + FF (gpm)	1,470	1,561	1,896	2,197	2,283	2,283	Largest HSP Off-Line at each WTP
Firm HSP Surplus/Deficit (gpm)	(470)	(561)	(896)	(1,197)	(1,283)	(1,283)	
Percent HSP Capacity (%)	147%	156%	190%	220%	228%	228%	Begin Planning @ 75% Capacity

6.0 Potable Water Regulatory Requirements

This Chapter presents potable water regulatory requirements of concern for the Town to recognize. State and Federal regulations were reviewed.

6.1 SJRWMD Regulatory Background

Two (2) Upper Floridian Aquifer (UFA) wells are the source of raw supply water for the Eatonville WTP, which are located in the CFWI planning area. **As a result, withdrawal from the UFA will be limited to 2025 demands per the CFWI rule. Therefore, alternative water supply (AWS) sources should be explored: such as, conservation; construction of a Lower Floridan Aquifer (LFA) well; or interconnection with a neighboring utility for emergency (two-way meter assembly) or consecutive system use (one-way meter assembly).**

The Town's ground water supply withdrawal is regulated by the SJRWMD. **Table 6-1** presents key requirements of the CUP and the status of meeting compliance with permit conditions. Future development is projected to exceed existing withdrawal allocations based on historical data trends.

6.2 FDEP Potable Water Regulatory Background

Eatonville's public water system is regionally regulated by the FDEP Central District. The current potable water supply system consists of two (2) wells and one (1) water treatment plant facility. To assure that public water systems supply drinking water which meets minimum requirements, the Federal Government enacted PL 93-523 known as the "Safe Drinking Water Act (SDWA)" in 1974.

The SDWA is the federal law that protects public drinking water supplies throughout the nation. Under the SDWA, United States Environmental Protection Agency (EPA) sets standards for drinking water quality and with the FDEP implements various technical and financial programs to ensure drinking water safety.

The SDWA gives individual states primacy to set and enforce their own drinking water standards if the standards are at a minimum as stringent as EPA's national standards. The legislature of Florida has enacted the "Florida SDWA," Sections 403.850-.864, F.S.

TABLE 6-1: Key CUP Requirement Status

Key Requirements	Description	Status
Condition No. 2	Maintain all flowmeters. Repair or replace defective meters within 30 days of discovery. Well 2A meter is inoperable.	➢ Repair/Replacement in Progress. ➢ Currently operator using run time and flow rate calibration check to calculate withdrawal.
Condition No. 3	Calibrate well flow meters every 10 years (by November 30, 2022).	➢ By FRWA Flow Meter Calibration on June 6, 2023
Condition No. 6	Submit a compliance report every 10 years (December 31, 2022). Report shall contain sufficient information to demonstrate use of water will continue to meet withdrawal allocation for remaining duration of permit.	➢ Current projected development growth indicates CUP will be exceeded.
Condition No. 11	Leaking well assemblies must be repaired or replaced to eliminate leaks	➢ Need to schedule leak repair on Well 1A
Condition No. 23	Submit total withdrawal monthly recording EN-50 reports to SJRWMD every 6 months (July 31st and January 31st).	➢ Up to date on EN-50 submittals ➢ Historical recordings reported inaccurately in 2019, 2021 and 2022
Condition No. 24/22	Current public supply groundwater withdrawal allocation for potable water is 146.0 mgy (0.40 MGD average) to December 18, 2032	➢ At 66% of CUP limit ➢ Current projected development growth indicates CUP will be exceeded.

6.0 Potable Water Regulatory Requirements

Florida has promulgated Chapters 62-550 (1977 last amended 2015), 62-555 (1987 last amended 2014) and 62-560 (1987 last amended 2016), F.A.C, to implement the requirements of the Florida SDWA and to acquire and maintain primacy for Florida under the Federal SDWA. Florida has adopted national primary and secondary drinking water standards of the Federal Government where possible, and otherwise created additional rules to fulfill State and Federal requirements.

The SDWA Amendments of 1996 sought to address numerous long-standing problems impeding the nation's primary drinking water protection program. The expense associated with implementing drinking water regulations underscores the need for water purveyors to have a sound scientific information for the basis of decision-making.

Under the mandated Amendments to the SDWA in 1996, regulatory control has and will continue to increase, in terms of both number and types of contaminants being regulated, as well as acceptable contaminant concentrations. The newer provisions of the SDWA are more restrictive than standards in the past. Today, more emphasis must be placed on compliance with water quality regulations at the consumer tap, which include the following:

- Revised Lead and Copper Rule (LCR)
- Stage 2 Disinfection By-Product Rule (DBPR)
- Revised Total Coliform Rule (TCR) – Monthly BacT Sampling
- Ground Water Rule (GWR) - Demonstration of 4-Log Virus Inactivation

Moreover, public water purveyors are under increased demands to maintain consumer confidence and manage water quality in distribution systems expanding because of economic and population growth. As regulations continue to be developed, water utilities are preparing by implementing total quality management programs to increase productivity and enhance consumer attitudes.

The purpose of this section is to review existing drinking water supply and treatment performance relative to water quality, design, operations, and maintenance regulatory requirements. Objectives of this section are as follows:

- Review State and Federal regulations (existing and future) relative to drinking water.
- Present regulatory impacts relative to Eatonville's potable water system.
- Recommend action items in response to existing and future regulations applicable to Eatonville.

6.3 Primary Drinking Water Standards

Eatonville meets State and Federal Drinking Water Standards. The federal regulations establish enforceable standards called "maximum contaminant levels (MCLs)." MCLs are established to protect public health and are calculated so that little or no adverse health risk would be expected based on a lifetime average consumption rate of two liters of water per day for 70 years.

Currently, eighty-eight (88) contaminants are regulated under National Primary Drinking Water Regulations (NPDWRs) established by EPA and enforced by FDEP. Primary drinking water standards in Florida include the following categories:

- Inorganic Chemicals (**Section 6.3.1**)
- Volatile Organic Chemicals (VOCs) (**Section 6.3.2**)
- Synthetic Organic Chemicals (SOCs) (**Section 6.3.3**)
- Disinfectant Residuals and Disinfection By-Products (**Section 6.3.4**)
- Microorganisms (**Section 6.3.5**)
- Radionuclides (**Section 6.3.6**)

6.3.1 Inorganic Chemicals

Table 6-2 summarizes the average inorganic chemicals monitored at the point-of-entry (POE) to the distribution system from the Eatonville WTP. Samples are collected triennially (every 3 years). **Eatonville complies inorganic chemical sample collection and water quality**.

TABLE 6-2: Summary of Inorganic Chemical (2012 to 2021) [a] [b]

CONTAMINANT	Units	2012	2015	2018	2021	Maximum Contaminant Level	Lab Minimum Detection Limit
Nitrate	mg/L as N	BDL	BDL	BDL	BDL	***10.00***	***0.2***
Nitrite	mg/L as N	BDL	BDL	BDL	BDL	***1***	***0.2***
Arsenic	mg/L	BDL	BDL	BDL	BDL	***0.010***	***0.001***
Barium	mg/L	0.004	BDL	0.005	0.005	***2.000***	***0.002***
Cadmium	mg/L	BDL	BDL	BDL	BDL	***0.005***	***0.001***
Chromium	mg/L	0.005	BDL	0.003	BDL	***0.100***	***0.001***
Cyanide	mg/L	BDL	BDL	BDL	BDL	***0.200***	***0.005***
Fluoride	mg/L	0.3	0.2	BDL	0.2	***4.0***	***0.2***
Lead	mg/L	BDL	BDL	BDL	BDL	***0.015***	***0.001***
Mercury	mg/L	BDL	BDL	BDL	BDL	***0.0020***	***0.00002***
Nickel	mg/L	0.002	0.002	BDL	BDL	***0.100***	***0.001***
Selenium	mg/L	BDL	BDL	BDL	BDL	***0.050***	***0.002***
Sodium	mg/L	15	20	19	18	***160***	***0.5***
Antimony	mg/L	BDL	BDL	BDL	BDL	***0.006***	***0.001***
Beryllium	mg/L	BDL	BDL	BDL	BDL	***0.0040***	***0.0005***
Thallium	mg/L	BDL	BDL	BDL	BDL	***0.002***	***0.001***

a) Source: FDEP triennial POE sampling of PWS No. 3480327.

b) BDL = Below Detectable Limit

6.3.2 Volatile Organic Chemicals (VOCs)

Table 6-3 summarizes the average VOCs monitored at the POE to the distribution system from the Eatonville WTP. Samples are collected triennially (every 3 years). No VOCs have been detected. **Eatonville complies with VOC chemical sample collection and water quality**.

TABLE 6-3: Summary of VOCs (2012 to 2021) [a] [b]

CONTAMINANT	Units	2012	2015	2018	2021	Maximum Contaminant Level
1,2,4-Tricholorobenzene	ug/L	BDL	BDL	BDL	BDL	***70***
cis-1,2-Dichloroethylene	ug/L	BDL	BDL	BDL	BDL	***70***
Xylenes (total)	ug/L	BDL	BDL	BDL	BDL	***10,000***
Dichloromethane	ug/L	BDL	BDL	BDL	BDL	***5***
o-Dichlorobenzene	ug/L	BDL	BDL	BDL	BDL	***600***
para-Dichlorobenzene	ug/L	BDL	BDL	BDL	BDL	***75***
Vinyl chloride	ug/L	BDL	BDL	BDL	BDL	***1***
1,1-Dichloroethylene	ug/L	BDL	BDL	BDL	BDL	***7***
trans-1,2-Dichloroethene	ug/L	BDL	BDL	BDL	BDL	***100***
1,2-Dichloroethane	ug/L	BDL	BDL	BDL	BDL	***3***
1,1,1-Trichloroethane	ug/L	BDL	BDL	BDL	BDL	***200***
Carbon tetrachloride	ug/L	BDL	BDL	BDL	BDL	***3***
1,2-Dichloropropane	ug/L	BDL	BDL	BDL	BDL	***5***
Trichloroethylene	ug/L	BDL	BDL	BDL	BDL	***3***
1,1,2-Trichloroethane	ug/L	BDL	BDL	BDL	BDL	***5***
Tetrachloroethylene	ug/L	BDL	BDL	BDL	BDL	***3***
Monochlorobenzene	ug/L	BDL	BDL	BDL	BDL	***100***
Benzene	ug/L	BDL	BDL	BDL	BDL	***1***
Toluene	ug/L	BDL	BDL	BDL	BDL	***1,000***
Ethylbenzene	ug/L	BDL	BDL	BDL	BDL	***700***
Styrene	ug/L	BDL	BDL	BDL	BDL	***100***

a) Source: FDEP triennial POE sampling of PWS No. 3480327.

b) BDL = Below Detection Limit <=0.5 ug/L.

6.3.3 Synthetic Organic Chemicals (SOCs)

Table 6-4 summarizes the average SOCs monitored at the POE to the distribution system from the Eatonville WTP. Samples are collected every 3 years. SOCs include herbicides, pesticides, PCB and dioxin. No SOCs have been detected. **Eatonville complies with SOC chemical sample collection and water quality**.

TABLE 6-4: Summary of SOCs (2012 to 2021) [(a)] [(b)]

CONTAMINANT	Units	2012	2015	2018	2021	Maximum Contaminant Level	Regulatory Detection Limit
Endrin	mg/L	BDL	BDL	BDL	BDL	***0.002***	***0.00001***
Lindane	mg/L	BDL	BDL	BDL	BDL	***0.0002***	***0.00002***
Methoxychlor	mg/L	BDL	BDL	BDL	BDL	***0.04***	***0.0001***
Toxaphene	mg/L	BDL	BDL	BDL	BDL	***0.003***	***0.001***
Dalapon	mg/L	BDL	BDL	BDL	BDL	***0.2***	***0.0010***
Diquat	mg/L	BDL	BDL	BDL	BDL	***0.02***	***0.0004***
Endothall	mg/L	BDL	BDL	BDL	BDL	***0.1***	***0.009***
Glyphosate	mg/L	BDL	BDL	BDL	BDL	***0.7***	***0.006***
Di(2-ethylhexyl)adipate	mg/L	BDL	BDL	BDL	BDL	***0.4***	***0.0006***
Oxamyl (vydate)	mg/L	BDL	BDL	BDL	BDL	***0.2***	***0.002***
Simazine	mg/L	BDL	BDL	BDL	BDL	***0.004***	***0.00007***
Di(2-ethylhexyl)phthalate	mg/L	BDL	BDL	BDL	BDL	***0.006***	***0.0006***
Picloram	mg/L	BDL	BDL	BDL	BDL	***0.5***	***0.0001***
Dinoseb	mg/L	BDL	BDL	BDL	BDL	***0.007***	***0.0002***
Hexachlorocyclopentadiene	mg/L	BDL	BDL	BDL	BDL	***0.05***	***0.0001***
Carbofuran	mg/L	BDL	BDL	BDL	BDL	***0.04***	***0.0009***
Atrazine	mg/L	BDL	BDL	BDL	BDL	***0.003***	***0.0001***
Alachlor	mg/L	BDL	BDL	BDL	BDL	***0.002***	***0.0002***
Heptachlor	mg/L	BDL	BDL	BDL	BDL	***0.0004***	***0.00004***
Heptachlor epoxide	mg/L	BDL	BDL	BDL	BDL	***0.0002***	***0.00002***
2,4-D	mg/L	BDL	BDL	BDL	BDL	***0.07***	***0.0001***
2,4,5-TP (Silvex)	mg/L	BDL	BDL	BDL	BDL	***0.05***	***0.0002***
Hexachlorobenzene	mg/L	BDL	BDL	BDL	BDL	***0.001***	***0.0001***
Benzo(a)pyrene	mg/L	BDL	BDL	BDL	BDL	***0.0002***	***0.00002***
Pentachlorophenol	mg/L	BDL	BDL	BDL	BDL	***0.001***	***0.00004***
Polychlorinated biphenyls (PCBs)	mg/L	BDL	BDL	BDL	BDL	***0.0005***	***0.0001***
Dibromochloropropane (DBCP)	mg/L	BDL	BDL	BDL	BDL	***0.0002***	***0.00002***
Ethylene dibromide (EDB)	mg/L	BDL	BDL	BDL	BDL	***0.00002***	***0.00001***
Chlordane	mg/L	BDL	BDL	BDL	BDL	***0.002***	***0.0002***

a) Source: FDEP average triennial POE sampling of PWS No. 3480327.

b) BDL = Below Detection Limit.

6.3.4 Disinfectants and Disinfection Byproducts Rules

6.3.4.1 Free Chlorine Disinfection

The Town uses 12% liquid chlorine for disinfection. **Table 6-5** presents a summary of chlorine residuals from the Eatonville WTP. Average chlorine residual from the Eatonville WTP is 0.09 mg/L. **Eatonville complies with the minimum and maximum residual disinfectant level (MRDL).**

TABLE 6-5: Summary of Chlorine Residuals (2014 to 2021) [a]

DISINFECTANT RESIDUAL	2014	2015	2016	2017	2018	2019	2020	2021	Residual Disinfectant Level
Average	1.6	2.0	1.4	0.92	0.8	1.0	0.09	0.09	
Maximum	2.5	3.0	2.9	1.1	1.0	1.4	1.2	1.2	*Max: 4.0 mg/L*
Minimum	0.77	0.7	0.7	0.6	0.6	0.8	0.5	0.5	*Min: 0.5 mg/L*

a) Source: Consumer Confidence Reports.

6.3.4.2 Disinfection By-Product Compliance and Consent Order

The Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) further strengthens public health protection by tightening compliance monitoring requirements for total trihalomethanes (TTHM) and five haloacetic acids (HAA5). The DBPR applies to community water systems and non-transient non-community systems, including those serving fewer than 10,000 people that add a disinfectant to the drinking water during any part of the treatment process.

The Stage 2 DBPR targets PWSs with the greatest risk by using a locational approach. Stage 2 is based on a locational running annual average (LRAA) for TTHMs and HAA5. Stage 2 LRAA provides compliance "equity" throughout the distribution system. Stage 2 DBP compliance monitoring for Eatonville began in 4th quarter of 2013. Stage 2 DBP MCLs are as follows:

- TTHM ➔ 80 µg/L LRAA
- HAA5 ➔ 60 µg/L LRAA

Figure 6-1 presents historical TTHM compliance sampling results from 2016 to present. **Figure 6-2** presents historical HAA5 compliance sampling results from 2016 to present. Individual samples are represented by the symbols. The Stage 2 LRAA are represented by the same-colored trend lines.

On March 3, 2023, FDEP issued Consent Order No. 22-2847 to the Town to address violations relative to exceedance of disinfection by-product (DBP) maximum contaminant levels (MCLs). In the 3rd quarter of 2022, flushing devices were installed in the distribution system, which have resulted in a decrease in DBP trends.

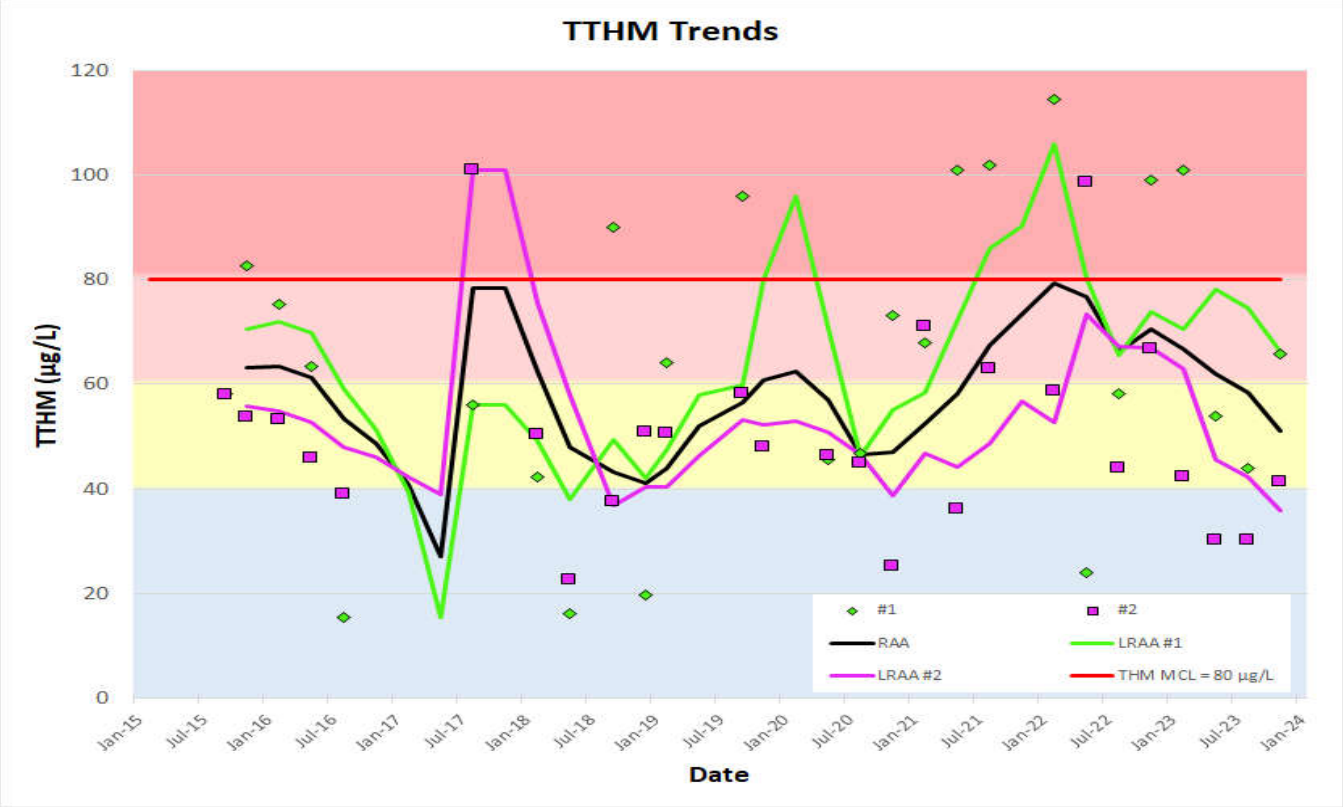
Based on preliminary review of the DBP trends, some type of system change is suspected to be impacting the formation of DBPs. As a result, water age is suspected to be the major contributor in DBP formation for PWS No. 3480327. The following action items were offered for the Town to consider implementing to address the Consent Order:

1. **Continue to Use Flushing Devices** – Installing flushing devices strategically in the distribution system offers an acceptable practice to implement for areas experiencing high water ages which result in DBP non-compliance. Several utilities in Central Florida use this low-cost approach to provide higher quality water to their customers. The main challenge with flushing is addressing the limits on the CUP withdrawal allocations for water supply.

2. **Conduct DBP Formation Potential (FP) Testing** – DBP FP testing offers a low-cost "snap-shot" view of the source water's ability to meet DBP compliance. Engineer will need to coordinate with Biometrics to collect samples and transport to Pace Laboratories for DBP measurement.

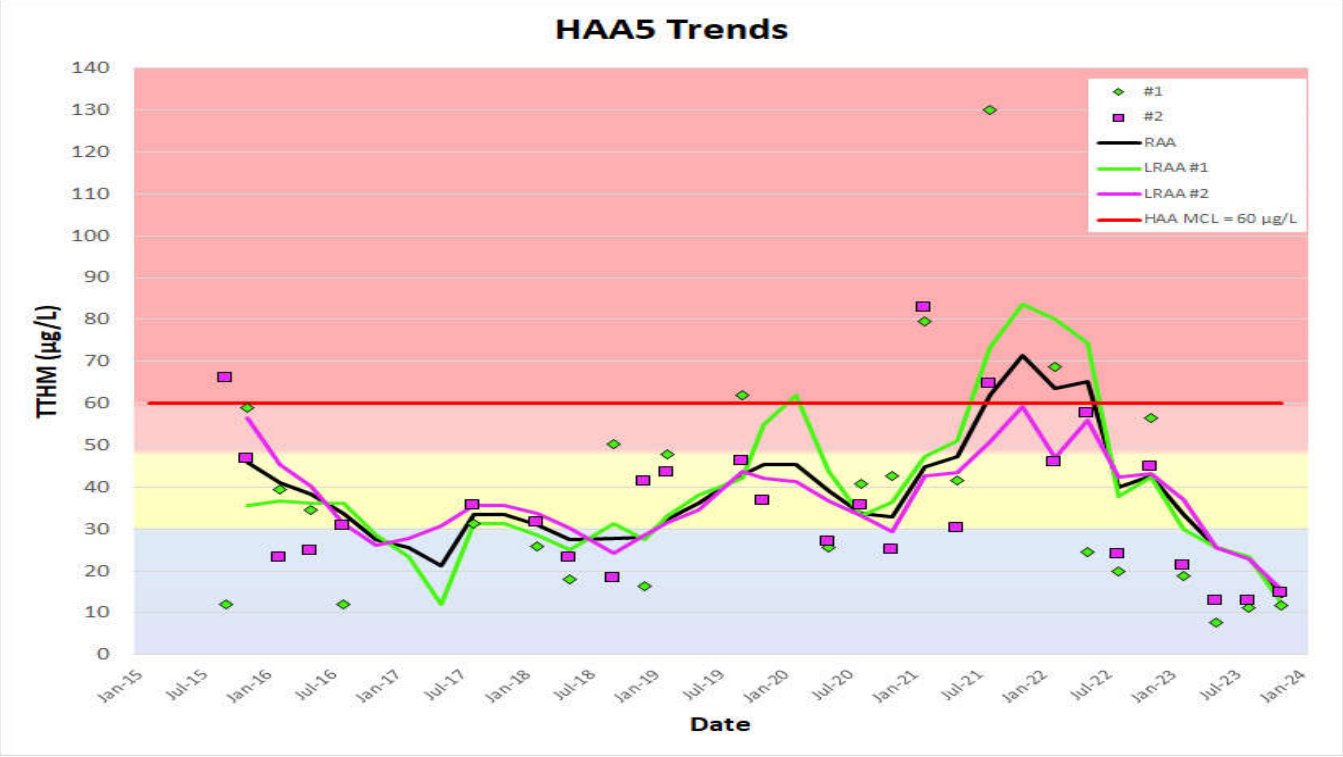
3. **Evaluate High Service Pumping (HSP) Variable Frequency Drive (VFD) SCADA to Optimize Elevated Storage Tank (EST) Turn-Over** – Currently, the Eatonville WTP has two (2) HSPs operated with VFD motors and one (1) HSP operated with a constant rate motor. The HSP VFDs are set to maintain a 52-psi set-point. The challenge with operating VFDs is "turning over" the remote EST. Adjusting the operational SCADA programming is a low-cost solution, which can allow the EST to "turn over" more frequently. DBPFP testing should be conducted prior to adjusting to optimize the required EST turn over time.

FIGURE 6-1: Stage 1 & Stage 2 THM Compliance Trends (2016 to 2023)



Source FDEP Stage 1 RAA and Stage 2 LRAA compliance sampling for PWS No. 3480327.

FIGURE 6-2: Stage 1 & Stage 2 HAA Compliance Trends (2016 to 2023)



Source FDEP Stage 1 RAA and Stage 2 LRAA compliance sampling for PWS No. 3480327.

4. **Permit and Install Mixing Devices to Ground Storage Tank (GST)** – Installing mixers and exhaust fans to the existing 0.2-MG GST is an acceptable practice to reduce stored water age, improve chlorine residual control and reduce chemical cost. Several utilities in Central Florida use this low-cost approach to provide higher quality water to their customers. A minor permit modification will need to be prepared and submitted to FDEP (Form 62-555.900 – Application to Construct PWS Components – Minor Permit Fee $1000). In addition, the low water set-point readjusted to allow more frequent turnover of the GST which will improve DBP control.

5. **Submit 4-Log CT Virus Inactivation Demonstration to FDEP** – As a result of installing mixers in the 0.2-MG GST, the 4-log CT inactivation demonstration can be further adjusted to lower the low water set-point in the GST resulting in reduced storage water age further limiting DBP formation. Several utilities in Central Florida use this low-cost approach to provide higher quality water to their customers.

6. **Install Temporary Chlorine Feed System at Well Site** – Installing a temporary chlorine feed system at the well site offers the ability for the operators to control the chlorine feed rate and stabilize chlorine residuals. Also, the Eatonville WTP facility can be refurbished or relocated with minimal impact to operations during construction.

6.3.5 Microorganism

EPA has determined that the presence of total coliforms is a possible health concern. Total coliforms are common in the environment and are generally not harmful themselves. Presence of coliform bacteria in drinking water is generally a result of an issue with water treatment or distribution system pipes.

Excessive persistence of coliforms indicates the water may be contaminated with organisms that can cause disease. Disease symptoms may include diarrhea, cramps, nausea and possibly jaundice, headaches and fatigue. The symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than drinking water.

Therefore, FDEP has set an enforceable drinking water standard for total coliforms to reduce the risk of adverse health effects. The MCL for coliform bacteria is based on the presence or absence of total coliforms in a sample, rather than coliform density, which triggers public notification.

Under the standard, no more than 5% of the samples collected during a month can contain coliform bacteria, except for systems collecting fewer than 40 samples/month that have one total coliform-positive sample per month are not violating the standard. Drinking water that meets this standard is usually not associated with a health risk from disease-causing bacteria and should be considered safe.

6.3.6 Radionuclides

According to the EPA, there are two (2) sources of radioactive contamination in drinking water. The first is naturally occurring radionuclides contained in soil that can be soluble in water. Some areas in Florida are susceptible to contamination from phosphate-rich soils and rock. The second source of radioactive contamination comes from man-made sources. According to FDEP, there is no known man-made contamination of drinking water in Florida. The standards and rules governing radionuclides is currently under revision by EPA. Florida will adopt the new standards and rules when issued by EPA.

FDEP monitors naturally occurring radionuclides. **Table 6-6** summarizes the average radionuclides monitored at the POE to the distribution system from the WTP. Samples are collected every 6 years. **Eatonville complies with radionuclide chemical sample collection and water quality**.

TABLE 6-6: Summary of Radionuclides (2012 to 2021) [a]

CONTAMINANT	Units	2012	2015 [b]	2021	MCL
Gross alpha particle activity (excluding radon and uranium)	pCi/L	2.0	N/A	1.8	***15 pCi/L***
Radium-226	pCi/L	0.6	N/A	0.8	***5 pCi/L***
Radium-228	pCi/L	1.0	N/A	0.7	***5 pCi/L***

a) Source: Consumer Confidence Reports.
b) Radionuclides sample not taken in 2015.

6.4 Secondary Drinking Water Standards

EPA has also established National Secondary Drinking Water Regulations (NSDWRs) which set standards to assist public water systems in managing drinking water for aesthetic considerations; such as taste, color and odor.

Secondary drinking water standard contaminants are not health threatening at the "secondary maximum contaminant levels (SMCLs). EPA believes that if secondary drinking water standard contaminants are present in water at levels above the standards, the contaminants may cause the water to appear cloudy or colored, or to taste or smell bad. The result may cause a great number of people to lose confidence and to stop using water from the PWS even though the water is safe to drink.

Secondary standards are set to give public water systems some guidance on removing the contaminants to levels below what most consumers find to be noticeable. No adverse health effects are generally associated with secondary drinking water contaminants.

Table 6-7 summarizes the average secondary contaminants monitored at the point-of entry (POE) to the distribution system from the Eatonville WTP. Samples are collected every 3 years. **Eatonville complies with secondary drinking water standard sample collection and water quality**.

TABLE 6-7: Summary of Secondary Drinking Water Contaminants (2012 to 2021) [(a)]

CONTAMINANT	Units	2012	2015	2018	2021	SMCL	Lab Minimum Detection Limit
Aluminum	mg/L	BDL	BDL	BDL	BDL	***0.2***	***0.02***
Chloride	mg/L	34	33	32	29	***250***	***0.40***
Copper	mg/L	0.002	BDL	BDL	BDL	***1***	***0.001***
Fluoride	mg/L	0.3	0.2	0.4	0.2	***2***	***0.2***
Iron	mg/L	BDL	BDL	BDL	BDL	***0.3***	***0.01***
Manganese	mg/L	BDL	BDL	BDL	BDL	***0.05***	***0.01***
Silver	mg/L	BDL	BDL	BDL	BDL	***0.1***	***0.0005***
Sulfate	mg/L	4	6	5	3	***250***	***1***
Zinc	mg/L	BDL	BDL	BDL	BDL	***5***	***0.01***
Color	color units	15	5	BDL	BDL	***15***	***5***
Odor	Threshold odor number	BDL	BDL	BDL	BDL	***3***	***1***
pH	Std. Unit	8.04	8.39	7.99	8.25	***6.5 to 8.5***	***0.01***
Total Dissolved Solids	mg/L	216	222	222	244	***500***	***2.5***
Foaming Agents	mg/L	BDL	BDL	BDL	BDL	***0.5***	***0.2***

a) Source: FDEP triennial POE sampling of PWS No. 3480327.

b) BDL = Below Detection Limit.

6.5 Control of Lead and Copper

The treatment technique for the Lead and Copper Rule (LCR) requires systems to monitor drinking water at customer taps. If lead concentrations exceed an action level of 15 µg/L or copper concentrations exceed an action level of 1.3 ppm in more than 10% of customer taps sampled, the system must undertake a number of additional actions to control corrosion. If the action level for lead is exceeded, the system must also inform the public about steps to take to protect consumer health and may have to replace lead service lines under the PWS's control.

Lead and copper enter drinking water primarily through plumbing materials. Exposure to lead and copper may cause health problems ranging from stomach distress to brain damage. In 1991, EPA published a regulation to control lead and copper in drinking water. The regulation is known as the Lead and Copper Rule (LCR). Since 1991 the LCR has undergone various revisions. As a result of the Flint Michigan incident, EPA has revised the LCR in 2021.

The revised LCR includes a suite of actions to reduce lead exposure in drinking water where most needed. The revised LCR is intended to identify the most at-risk communities and ensure PWSs have plans in place to rapidly respond by taking actions to reduce elevated levels of lead in drinking water.

The revised LCR takes a proactive and holistic approach to improving the current rule from testing to treatment to telling the public about the levels and risks of lead in drinking water. The approach focuses on six (6) key areas:

1. Identifying the areas most impacted – Inventory Lead Service Lines (LSL)
2. Strengthening drinking water treatment requirements – Establish new lead action level = 10 ug/L
3. Replacing LSL – Replace LSL when customers replace their portion of LSL
4. Increasing sampling reliability – Target sample higher lead areas more frequently
5. Improving risk communication – Notify customers of exceedance within 24 hours
6. Protecting children in schools and childcare facilities – Sample drinking water outlets at schools

Table 6-8 summarizes the LCR action levels monitored in the distribution system. Samples are collected triennially. **Eatonville complies with LCR action levels sample collection and water quality.**

TABLE 6-8: Summary of Lead and Copper 90th Percentile Concentrations (2012 to 2021) [a]

CONTAMINANT	Units	2012	2015	2018	2021	Treatment Technique Action Level
Lead	µg/L	N/A	N/A	N/A	0.001	***15***
Copper	mg/L	0.0283	0.0283	0.023	0.417	***1.3***

a) Source: FDEP triannual distribution system sampling.

6.6 Consumer Confidence Report

EPA requires community water systems to deliver a Consumer Confidence Report (CCR), also known as an "Annual Drinking Water Quality Report", to their customers by July 1st of each year. The Consumer Confidence Reports provide customers information about their local drinking water quality.

Eatonville routinely monitors for contaminants in drinking water according to Federal and State laws, rules, and regulations. The data presented in the report is from the most recent testing performed in accordance with the laws, rules, and regulations. **According to the CCR, Eatonville's drinking water continues to meet all Federal and State requirements.**

6.7 Ground Water Rule (GWR)

EPA issued the Ground Water Rule (GWR) to improve drinking water quality and provide protection from disease-causing microorganisms. Water systems that have ground water sources may be susceptible to fecal contamination. In many cases, fecal contamination can contain disease causing pathogens. The purpose of the GWR is to reduce disease incidence associated with harmful microorganisms in drinking water.

The GWR applies to PWS that use ground water as a source of drinking water. The GWR also applies to any system that delivers surface and ground water to consumers where the ground water is added to the distribution system without treatment. The GWR was published in the Federal Register on November 8, 2006.

Currently, FDEP has adopted the requirement of the GWR relative to demonstration of 4-log virus inactivation disinfection. Eatonville has not been required to submit a CT evaluation. However, if Eatonville was required to meet CT the following requirements were assumed for the Eatonville WTP GST.

1. Minimum free chlorine residual ≥ 0.50 mg/l and MRDL ≤ 4.0 mg/L.
2. Minimum water temperature of 18° C (typical Central Florida low groundwater temperature).
3. pH value in the range of 6-9.
4. An installed HSP capacity peak hour demand of 1,800 gpm (all HSPs on-line).
5. GST baffle factor of 0.3 (without mixers).
6. A minimum water level of approximately 3 feet in the GST.

6.8 Contaminants of Emerging Concern

In addition to regulated contaminants, EPA also prioritizes research and data collection for new chemicals being discovered in water that previously had not been detected or are being detected at levels that may be different than expected under the Unregulated Contaminant Monitoring Rule (UCMR). While there are no regulatory limits for UCMR, there may be a long-term potential risk to human health, or the environment associated with emerging contaminants. Additional studies may also bring new or changing health exposure information related to emerging contaminants. Hence, FDEP is committed to addressing emerging contaminants.

As part of EPA's data collection on emerging contaminants, all large and selected smaller public water systems (equal to or less than 10,000 people) across the U.S. were required to monitor for the targeted Contaminants of Emerging Concern (CEC). **Eatonville has not been selected to sample for any of the thirty (30) CECs**.

Once EPA's study and evaluation are complete, EPA can develop or modify Health Advisory Levels (HALs) for CECs detected. While HALs do not establish a regulatory limit or "maximum contaminant level" (MCL) for drinking water, HALs provide guidance to state and local officials in evaluating drinking water quality based on levels below which adverse health effects are not anticipated to occur over a lifetime of exposure. Currently, the Florida Department of Health (FDOH) have set HALs for the following CECs:

1. 1,4-Dioxane –HAL <= 0.35 ug/L
2. PFAS/PFOS - HAL <= 70 ng/L

6.9 Public Water System Design Standard Impacts and Action Items

This section presents State potable water design standards and suggests actions relative to the FDEP Chapter 62-555 regulations. **Table 6-9** provides a summary of the FDEP Chapter 62-555 rule requirements, compliance impacts and action items for Eatonville to consider.

Recommendations were developed to maintain compliance with FDEP regulations. Currently Eatonville is approaching the need for additional well production, storage capacity and high service pump capacity. For reference **Table 6-10** presents the total sulfide treatment guidelines for new wells.

TABLE 6-9: FDEP Chapter 62-555 Requirements

PARAMETER	Requirement	Facility Design Compliance Impacts	Compliant	Non-Compliant	Action Items
Monitoring	Odor Control	• Objectionable Odors	√		---
	Capacity Analysis	• MDD < 75% Max Day Design Capacity	√		Begin planning for rerating WTP.
Design	Location of PWS Wells	• Setback Distances • Well Head Protection • Security	√ √ √		---
	PWS Wells	• Firm Capacity MDD • Total Capacity MDD + FF	√ √		Begin planning for additional well production.
	Control of Copper Pipe Corrosion & Black Water	• H_2S Removal	√		Begin planning treatment options if needed for future LFA wells [(a)]
	Drinking Water Chemicals	• NSF 60 Approved	√		---
	Materials of Construction in Contact with Water	• NSF 61 Approved	√		---
	Flood Protection	• 100-yr Flood	√		---
	Color Coding of Piping	• Color Code and Label	√		---
	Finished Water Storage	• 25% MDD + FF	√		Begin planning for additional storage.
Operation	Standby Power	• Source, treatment and pumping power to meet ADD		√	Generator at well site inoperable.
	High Service Pumping	• PHD • MDD + FF • Minimum 20 psi	√ √ √		Begin planning for additional HSP capacity.
Maintenance	Isolation Valves & Auxiliary Equipment Exercise Program	• Every year	√		Assess equipment exercise program
	Storage Tank Maintenance	• Every 5 years		√	Off-site EST currently being repaired
Disinfection	GWR CT 4-Log Virus Inactivation	• CT > 4-mg/L-min	√		Revise CT calculations for when new GST installed.
	Chlorine Residual	• Max = 4.0 mg/L MRDL • Min = 0.2 mg/L	√		Assess condition of continuous chlorine analyzer

a) Wells constructed before 2003. No action required at this time.

TABLE 6-10: Total Sulfide Treatment Guidelines (FDEP Chapter 62-555.315) [a]

Potential for Impacts without Total Sulfide Removal	Source Water Sulfide Level	Potential Water Treatment Technique
Low	Total Sulfide (TS) < 0.3 mg/L; or Dissolved Iron (DI) < 0.1 mg/L[1]	Direct chlorination[2]
Moderate	0.3 mg/L ≤ TS ≤ 0.6 mg/L @ pH ≤ 7.2	Conventional aeration[3] (maximum removal efficiency ≈ 40% to 50%)
	0.3 mg/L ≤ TS ≤ 0.6 mg/L @ pH > 7.2	Conventional aeration with pH adjustment (maximum removal efficiency ≈ 40% to 50%)
Significant	0.6 mg/L ≤ TS ≤ 3.0 mg/L @ pH ≤ 7.2	Forced Draft Aeration[3] (maximum removal efficiency ≈ 90%)
	0.6 mg/L ≤ TS ≤ 3.0 mg/L @ pH > 7.2	Forced Draft Aeration with pH adjustment [4, 5] (maximum removal efficiency ≈ 90%)
Very Significant	TS > 3.0 mg/L	Packed Tower Aeration with pH adjustment [4, 5] (maximum removal efficiency ≈ 90%)

a) Treatment depends upon H_2S levels in the raw water. Wells constructed before August 28, 2003 are exempt from treatment requirements; however, FDEP may enforce treatment requirements if consumer complaints are received on the quality of water related to H_2S levels.

1. High iron content raises concern if chlorination alone is used and significant dissolved oxygen exists in the source water. Filtration may be required to remove particulate iron prior to water distribution.
2. Direct chlorination of sulfide in water in the pH range normally found in potable sources produces $S^o_{(s)}$ and increased turbidity. Finished-water turbidity should not be more than two nephelometric turbidity units (NTU) greater than raw-water turbidity.
3. Increased dissolved oxygen entrained during aeration may increase corrosivity.
4. Reduction of alkalinity during pH adjustment and high dissolved oxygen entrained during aeration may increase corrosivity. Corrosion control treatment such as pH adjustment, alkalinity recovery, or use of inhibitors may be required.
5. High alkalinity will make pH adjustment costlier, and use of other treatment may be in order. Treatment that preserves the natural alkalinity of the source water may enhance the stability of finished water.

7.0 Key Design Criteria for Distribution System Hydraulic Modeling

Addressing key design criteria for the potable water hydraulic model prior to initiation has several advantages. The primary advantages to Eatonville are as follows:

- Allows Eatonville to review proposed key criteria prior to use in modeling and evaluation.
- Provides an open avenue for Eatonville to revise, amend, or add to the key criteria based on Eatonville staff's unique knowledge of the system.
- Discuses and addresses potential issues and concerns related to the application of key design criteria prior to the modeling, evaluation, and development of proposed systems improvements.

There is also a significant advantage to Eatonville for early review and development of the key design criteria for the modeling and evaluation of the system. Primary and relevant concerns and issues can be discussed and finalized prior to beginning the work.

7.1 PWS Transmission and Distribution Hydraulic Modeling Criteria

The proposed methodology used in the hydraulic modeling and evaluating of Eatonville's potable water transmission and distribution system is presented in this section. Typical issues and concerns related to potable water transmission and distribution systems include the following factors:

1. Compliance with regulatory requirements and standards
2. Normal and extreme system service pressures
3. Normal operation and maintenance costs
4. Fire flow demand
5. Limiting or influencing severity of impacts associated with line breaks and emergency repair procedures

7.1.1 Factors Related to Compliance with Regulatory Requirements and Standards

Design criteria related to compliance with regulatory requirements and standards include:

- Maintenance of minimum service pressures above 20 psi
- Maintenance of minimum 0.2 mg/L free chlorine residual throughout the distribution system
- Materials and labeling/marking complying with AWWA and NSF 61 Standards
- Isolation valve spacing
- Stand-by pumping capability
- Emergency power for power outages

The general purpose of statutory requirements is to help assure that the quality of potable water delivered to users protects public health. **Although water quality modeling or evaluations are beyond the scope of the modeling and evaluation effort for this project, the hydraulic modeling software does have the capability to estimate water age, chlorine dissipation and disinfection by-product (DBP) formation potential throughout the system, provided the model is calibrated.**

Water age is a major indicator of the potential for water quality problems in potable water distribution systems. The WaterCAD model has the capability of modeling system chlorine residual dissipation and can be used by staff or others in the future for that purpose.

Minimizing lost/unaccounted for or wasted water is a key design criterion in Central Florida because of the lower allocations being permitted for consumptive use. Eatonville should continue efforts to minimize unaccounted for water.

Dead end mains are common causes of high-water age and low chlorine residual concentrations that can require frequent and significant volumes of flushing water to maintain minimum chlorine dissipation in the system. The related typical water transmission/distribution system hydraulic design factors include the capability to meet the minimum pressure requirements under the peak hour demand (PHD) or maximum day demand (MDD) coinciding with design fire flow (FF) demands (whichever is the most stringent).

Meeting criteria using non-looped systems can be counterproductive if pipe sizing results in low velocities and associated long residence times are adequate to allow chlorine residual concentrations to

dissipate below the regulatory minimum during normal system demand conditions. Conversely, excessive transmission/distribution system velocities increase the dynamic head losses in the system; hence raising pumping costs.

Stand-by (redundant) high service pumps are required in case one of the pumps becomes inoperative. The typical design criterion for establishing pumping system requirements is to provide a firm pumping capacity equal to or greater than the highest anticipated flow rate required to meet peak system demands. The firm pumping capacity of a system is the total pumping capacity remaining after assuming that the highest capacity pumping system is out-of-service (in this case, HSP No. 3 or remote off-site EST).

Facilities for emergency power generation are required for public water systems (Chapter 62-555.320(14)) because significant interruptions in service pumping can quickly result in non-compliance with minimum pressure and chlorine residual requirements. Emergency power capabilities should be adequate to provide for starting and operating raw water supply and service pumping units. Emergency power fuel storage capacity should be adequate for a minimum of 72 hours of continuous emergency generator operation, unless fuel delivery is anticipated to be an issue and additional operational capacity is considered to be necessary.

7.1.2 Normal and Extreme System Service Pressures

Low (near or below 20 psi) system service pressure is a critical design criterion. Managing service pressures can also be an issue.

Distribution service area pressures in Central Florida potable water transmission mains normally range between 55 and 75 psi. Currently, the Eatonville WTP is set to maintain a local pressure of 52 psi. The EST provides 49 to 53 psi.

Typical Central Florida area conservative design criteria for water main pressure class is typically less than or equal to 75 psi and thrust restraint systems incorporate an assumed maximum operating plus surge pressure design factor of 2.0 for a 150-psi maximum pressure.

7.1.3 Factors Impacting Normal Operation and Maintenance Costs

Most of the factors that impact normal operation and maintenance costs have been included in previous discussions. The factors include costs associated with:

- Lost or unaccounted for water
- Water supply production
- Labor and reporting required for flushing mains to maintain required chlorine residuals
- Power costs associated with maintaining higher service pumping pressures than may otherwise be necessary

The major transmission/distribution system design criteria impacting cost is maintaining higher service pumping pressures, which result in excessive pipeline velocities. Transmission pipeline velocities greater than 5 feet per second (fps) can result in significant or excessive system head loss for long pipe runs. Normally, this velocity range and the resultant head loss are not significant for short lengths of small diameter distribution mains.

7.1.4 Fire Flow Demand Factors

Fire flow demands are obviously critical to transmission and distribution system design. Although fire protection and building design standards and codes exist, the level of fire flow service to most areas is normally determined and regulated by the local fire department, through locally adopted ordinances and standards. The ordinances and standards are generally based on nationally recognized standards incorporating factors such as:

- Building usage
- Building type
- Materials of construction
- Types of materials used and/or stored on-site
- Other considerations

7.0 Key Design Criteria for Distribution System Hydraulic Modeling

For buildings with fire sprinklers, the following two (2) potential time periods of concern regarding capabilities of water transmission and distribution system to supply adequate flows and pressures were considered:

1. First few minutes, after the beginning of the fire, before the fire fighters arrive on site.
2. Period after the arrival of the firefighting equipment and personnel.

If the fire sprinkler system does not have a booster pumping system during the first period of the fire, the transmission and distribution system must provide adequate flow and pressure to activate and provide for the design fire sprinkler demand. Fire sprinkler system flow demand is generally low during the initial period with respect to the flow demand of the second fire demand period.

However, the required minimum pressures that the transmission and distribution systems need to deliver during the initial fire demand period can be significantly higher than those of the second fire demand period, when fire trucks and fire department personnel are on site. Typically, traditional transmission and distribution system engineering evaluations and models consider only the second fire flow demand period.

An additional transmission and distribution system design criterion for high value or high-risk buildings/uses is the provision of redundancy in the local transmission and distribution system via looped mains or another method of multi-directional feed. Looping criterion require that the transmission/distribution system continue to transport water to the area if one of the feed lines were to be broken, by closing valves isolating the line segment from the remaining feed system.

Fire flow demand scenarios will be based on maximum daily demand (MDD) plus fire-flow (FF). Fire flow is dependent upon land use type. For modeling purposes, the Town uses the following fire-flow criteria set by Orange County Utilities, based on land use in steady state hydraulic modeling.

Land Use Type	Area Fire Flows (gpm)	Residual Pressure (PSI)
Single-family/duplex-triplex	500	20
Multifamily	1,000	20
Commercial/industrial	2,000	20

7.1.5 Factors Limiting or Influencing the Severity of Impacts Associated with Emergency Repair Procedures of Line Breaks

There are three (3) primary transmission/distribution design criteria that limit or influence the severity of impacts of emergency repairs of line breaks that can be evaluated in the modeling effort. The criteria are as follows:

1. Looping and/or multi-directional feed capability in the system layout
2. Appropriate spacing and location of line valves
3. Availability of detailed and accurate system maps

One of the primary purposes for looping transmission/distribution systems is to limit the extent of the area impacted by line breaks and therefore, the number of services affected by a line break. Line breaks are a critical issue for both transmission and distribution mains. Transmission mains serve larger areas of the system; hence, looping, parallel mains or other forms of multi-directional feed capability is most critical to the transmission system.

Assuming that a transmission or distribution system is looped or is capable of multi-directional feeds, the spacing and location of line valves adjacent to a line break determines the area affected by a line break, with larger spacing resulting in larger areas of impact. The recommended spacing between transmission main isolation valves is 1,000 feet. The recommended spacing for distribution system main isolation valves is 500 feet.

7.2 Potable Water Demand Projection Assumptions

Estimates and distribution of existing water demand will be based on parcel level population densities. Average daily demands (ADD) will be projected based on per capita demands. Maximum daily demands (MDD) will be based on historical MDD/ADD peaking factors.

Projections of future potable water demands will be based on applying historical per capita demands to each parcel. Demands will first be applied to parcels within the existing potable water service areas currently served by Eatonville and areas believed to be in the development planning stage, as determined and identified by Eatonville's Planning Department.

7.3 Potable Water System Hydraulic Modeling Design Criteria

Table 7-1 presents the key design criteria considered in the modeling and evaluation of Eatonville's potable water transmission and distribution system.

TABLE 7-1: Potable Water System Distribution System Hydraulic Modeling Design Parameters

DESCRIPTION	CRITERIA	SOURCE
System Demands		
Persons per Service Connection	3.89	*2020 US Census*
Per Capita Demand	99 gpcd	*Average last 5 years*
Demand per day per ERU	385 gpd/ERU	*Average last 5 years*
Average Demand per minute per ERU	0.27 gpm/ERU	*Average last 5 years*
MDD/ADD Peaking Factor	2.81	*Average last 5 years*
PHD/ADD Peaking Factor	5.61	*2 times MDD/ADD*
Fire Flow Demands		
Hydrant	MDD + 750 gpm	*Town Standard*
System Pressures		
MDD + FF	20 psi minimum distribution system pressures (initial fire sprinkler pressure period not evaluated)	*FDEP 62-555*
PHD with no fire flow demands	30 psi minimum distribution system pressures	*CPH Rule of Thumb*
System Piping Velocities		
Maximum velocity for all piping	9.0 fps	*CPH Rule of Thumb*
Maximum velocity for all transmission mains	4.5 to 5 fps	*CPH Rule of Thumb*
Maximum velocity for all transmission mains with lengths of 3,000 feet or longer	3.5 fps	*CPH Rule of Thumb*

8.0 Potable Water Distribution System Evaluation

The purpose of this potable water distribution system evaluation is to update the distribution hydraulic model that Eatonville currently uses to determine the effects of operating scenarios at existing conditions; as well as, anticipated future growth. Deficiencies found as a result of the modeling analysis were noted and recommendations were suggested to provide possible solutions to the deficiencies.

The existing distribution system hydraulic model was developed using current demand conditions. By modeling the existing system for various scenarios, reactions to proposed conditions can be evaluated. The hydraulic model is currently not calibrated. Calibration of the model can be used to further optimize hydraulic model output. With assistance from Eatonville, improvements needed through the planning period were identified and prioritized for the development of 5-year CIP projects.

If needed, the distribution hydraulic model can be used by Eatonville to evaluate the effects of future developments on the distribution system and to identify improvements that may be necessary to improve the system. This section of the Master Plan report will:

- Describe the hydraulic model developed to analyze Eatonville's existing water transmission and distribution system.
- Summarize the system analyses performed on the transmission and distribution system.
- Discuss the results and areas of concern for the transmission and distribution system.
- Present recommendations for improving the existing system's response to demand conditions.

8.1 Hydraulic Model Development

This section details the hydraulic analysis of Eatonville's PWS using computer modeling software, WaterCAD. WaterCAD is a computer software used by utilities and engineering firms to make informed decisions on infrastructure conditions and capabilities. The model is input-based, and with the proper data collection and assumptions, can be used to plan, design, and operate water distribution networks.

8.0 Potable Water Distribution System Evaluation

For this evaluation, the modeling software was used to evaluate possible pressure and fire flow issues within the system. Once the model is constructed, the model will be a useful resource for design improvements, such as sizing and location of pipe, pumps, and tanks in order to meet future development demands, fire flow demands, and pressure requirements.

CPH created the distribution system base beginning with Eatonville's previous hydraulic model, Geographic Information System (GIS) files and AutoCAD files. Because the files were not current, CPH updated the files by physically adding the individual water systems from construction drawings provided by Eatonville Planning Department and input from Public Works Department.

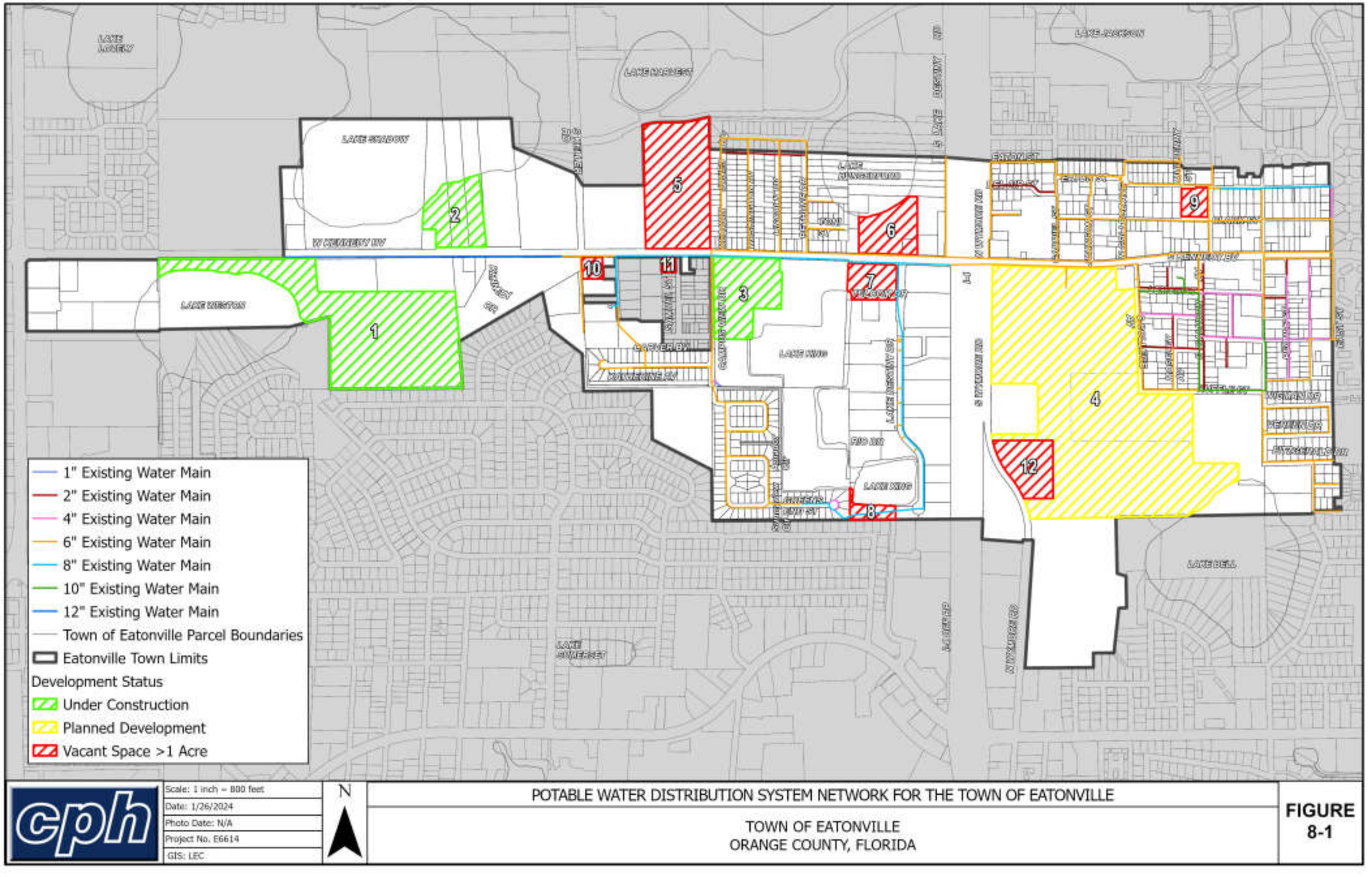
Figure 8-1 presents the potable water network at existing conditions for Eatonville. The potable water system hydraulic evaluation focuses on the existing water transmission and distribution system, including major water transmission mains, high service pumps and smaller diameter local distribution system mains.

The base model consists of a schematic representation of Eatonville's existing potable water infrastructure. The base model was created to simulate current ADD. Average demands were applied to nodes throughout the system based on the number of surrounding residential connections to create a total system demand approximate to the current ADD. Water was supplied from artificial "reservoirs" simulating the GST at the WTP, and fed to the distribution system by the HSPs and the off-site EST. Pump curves for the WTP HSPs were taken from the manufacturers' catalog for the particular high service pump models. The completed distribution model was then used to evaluate effects of future developments on the system.

The hydraulic model was prepared as a guide to Eatonville for maintaining the high level of potable water service that Eatonville provides to customers. Several aspects of Eatonville's potable water supply system were addressed. Using existing data and growth projections, potable water system hydraulic models were developed for the following four (4) scenarios.

1. Existing System – Base Model
2. Existing System with Off-Site EST Off-Line
3. Planned Development
4. Planned Development with Off-Site EST Off-Line

FIGURE 8-1: Potable Water Distribution System Network for the Town of Eatonville



Each scenario was modeled at four (4) operating demand conditions to identify system deficiencies and suggest potential solutions:

1. ADD
2. MDD
3. PHD
4. MDD + FF

Table 8-1 presents the scenario and operating demand conditions modelled in gallons per minute (gpm).

TABLE 8-1: Existing and Projected Demands

PARAMETER		Operating Demand Condition			
No.	**Scenario**	**ADD (gpm)**	**MDD (gpm)**	**PHD (gpm)**	**MDD + FF (gpm)**
1	Existing System	187	392	785	392
2	Existing System with EST Off-Line	187	392	785	392
3	Planned Development	289	497	894	497
4	Planned Development with EST Off-Line	289	497	894	497

8.2 Hydraulic Model Input

The initial step to develop the hydraulic model of Eatonville's PWS involved updating the distribution system network and verifying the reactions of the model compared to the flows and pressures produced by the Eatonville WTP. Nodes (pipe end-points) were generally located at changes in water main size, intersections of water mains, significant changes in elevations, and at minimal separation distances to allow the assignment of water demands from relatively small individual sub-service areas.

WaterCAD inputs consist of the network of pipes, nodes, and pumps. Demands, junction elevations, pump curves, and pipe diameters must be reflected and calibrated in the model. The following default modeling parameters of a typical distribution system were applied to the hydraulic model:

- Pipe Friction Method: Hazen Williams
- Kinematic Viscosity: 1.08E-005
- Flow Units: GPM
- Specific Gravity: 0.998
- Maximum Number of Trials: 40
- Relative Accuracy: 0.001

The Hazen-Williams C-factor used throughout the model was 105 for all variations of piping. The conservative C-factor was selected to account for minor losses through fittings that the model did not evaluate.

8.2.1 Model Demands

Eatonville water production facilities: such as well pumps, discharge piping and valves and high service pumps are represented and incorporated into the existing system model. The model was developed as a steady-state (SS) model, incorporating Eatonville's pump curves, operational controls systems and target system pressure.

Once the model network is reflective of existing WTP conditions, the next step would be calibrating the model to Eatonville's existing system pressures and respective water demands. To do so, fire hydrant

flow data would be reviewed, and the model adjusted to check and simulate node pressures to fire flow conditions. Following calibration, various modeling scenarios can be run.

The hydraulic model of the Eatonville water distribution system contains approximately 68,000 lineal feet of pipe ranging in size from 2-inch to 12-inch in diameter. The distribution system is supplied from the Eatonville WTP and off-site EST. Most of the demands were already present in Eatonville's model, so only spot checks were performed to verify that the distribution of demands was generally representative of the area based on parcel maps.

Critical design criteria for the evaluation and modeling of the transmission and distribution system included the following general topics:

a. Minimum and maximum system pressures.

b. Locations of existing dead-end mains and potential alternatives for dead-end elimination, reduction in number, and/or significance.

c. Identification of mains with excessive head loss due to line velocities.

d. Identification of line sizes less than four inches.

e. Hydraulic modeling evaluation criteria for fire flow scenarios. Separate zones could be created for areas that are either predominantly residential or commercial.

f. Identification of segments of transmission and distribution mains susceptible to major service outage if a line break were to occur along their lengths, including potential alternatives to significantly reduce the impacted areas or alternatives to provide redundant mains.

g. Evaluation methodology or consideration of system water age as a system water quality indicator which can include locations commonly flushed to maintain system chlorine residuals.

8.2.2 Average Day Demand Model Input

A base model was created to simulate the systems based on ADD. The model's ADD was based on historical data from monthly operational reports (MORs). The predominant reason for ADD condition is to check that the modeling results are representative of actual system operations.

The ADD scenario is typically used to calibrate the model. The HSPs were input into the model based on constant speed operation with one or two VFD HSPs running. ADDs were modeled for 2022 and 2043 scenarios. Pipes less than 4-inches in diameter do not meet fire flow conditions.

8.2.3 Maximum Day Demand Model Input

By locating a fire flow demand at key locations, the size of particular pipe, or pipes that feed that node can be determined for adequacy. The MDD + FF alternative was run for all nodes fed by 4-inch pipes or greater in the distribution system.

8.3 Hydraulic System Analysis Criteria

This section describes the criteria used to evaluate the Potable Water Distribution System. The analysis criteria were used in the planning and sizing of the Distribution System and ancillary equipment, such as booster pumps for the investigated potential pressure issues. **Table 8-2, 8-3,** and **8-4** present the pipe criteria, fire flow criteria, and water supply criteria, respectively.

Table 8-5 presents hydraulic design standards recommended in Ten-States Standards. The recommended design standards were used for modeling input and pipe sizing for recommended improvements.

TABLE 8-2: Pipe Criteria

Criteria Description	Value/Explanation	Reference
Minimum Pipe Size	Sufficient to carry MDD +FF or PHD	---
Minimum Pressure	Required with FF: 20 psi	*FDEP Rule 62-555*
Maximum Velocity	5 feet/second	*CPH Rule of Thumb*

TABLE 8-3: Fire Flow Criteria

Land Use	Required Fire Flow	Reference
Residential/Multifamily/Commercial	750 gpm	*Town Standard*

TABLE 8-4: Water Supply Criteria

Criteria Description	Value/Explanation	Reference
Supply Capacity	Meet MDD at all times	*FDEP Rule 62-555*
	Meet PHD for at least 4 consecutive hours	
	Meet MDD + FF	
Reliability	Capable of meeting Average, preferably Max Day Demand with largest pumping unit off-line	*FDEP Rule 62-555*

TABLE 8-5: Hydraulic Standards for the Water Distribution System

Description	Standard
Maximum Pipe Velocity	5.0 feet/second
Minimum Pressure	20 psi
Hazen-Williams Friction Coefficient (C)	100/110

8.4 Hydraulic Evaluation of Model Results

This section describes the hydraulic evaluation of Eatonville's Water Distribution System, based on the modeling results and compared against the minimum standards. The existing piping evaluation involves the analysis of pressures and velocities under ADD, MDD, PHD and MDD+FF conditions. **Appendix E** presents hydraulic model results for the selected scenarios evaluated.

8.4.1 Pressures

Table 8-6 presents the pressure ranges for the selected scenarios at existing and future demand conditions. For existing and future conditions, ADD was run with one (1) pump on; both PHD and MDD were run with two (2) pumps on; and MDD+FF was run with three (3) pumps on. The model indicates that the minimum pressure criteria is met.

TABLE 8-6: Hydraulic Model Pressure Ranges for Existing and Future Conditions

PARAMETER		Operating Demand Condition			
No.	**Scenario**	**ADD (psi)**	**MDD (psi)**	**PHD (psi)**	**MDD + FF (psi)**
1	Existing System	60-69	59-69	57-68	85-94
2	Existing System with EST Off-Line	60-69	59-69	57-68	85-94
3	Planned Development	59-69	58-69	55-68	81-92
4	Planned Development with EST Off-Line	59-69	58-69	55-68	81-92

8.4.2 Velocities

Table 8-7 presents the velocity ranges for the selected scenarios at existing and future demand conditions. The model shows that the velocities are less than 5 feet per second (fps) during all flow conditions.

TABLE 8-7: Hydraulic Model Velocity for Existing and Future Conditions

PARAMETER		Operating Demand Condition			
No.	**Scenario**	**ADD (ft/s)**	**MDD (ft/s)**	**PHD (ft/s)**	**MDD + FF (ft/s)**
1	Existing System	0-0.8	0-1.6	0-3.2	0-1.6
2	Existing System with EST Off-Line	0-0.8	0-1.6	0-3.2	0-1.6
3	Planned Development	0-1.18	0-2.03	0-3.65	0-2.03
4	Planned Development with EST Off-Line	0-1.18	0-2.03	0-3.65	0-2.03

8.4.3 Model Summary Deficiencies

Table 8-8 presents the hydraulic model deficiencies for the demand scenarios at existing and future conditions. Year 2023 MDD + FF had indications of issues at six (6) junctions. These issues are due to the hydrants and junctions being on 2-inch lines. Running the model in future flow with the proposed improvements showed the deficiencies at the same 2-inch lines.

TABLE 8-8: Hydraulic Model Deficiencies for Existing and Future Conditions

PARAMETER	Operating Demand Condition			
Scenario	**ADD**	**MDD**	**PHD**	**MDD + FF**
Existing System	Four (4) pipes where the velocity = 0	Four (4) pipes where the velocity = 0	Two (2) pipes where the velocity = 0	Six (6) failed constraints on 2” lines
Existing System with EST Off-Line	Three (3) pipes where the velocity = 0	Three (3) pipes where the velocity = 0	One (1) pipes where the velocity = 0	Six (6) failed constraints on 2” pipes
Planned Development	Two (2) pipes where the velocity = 0	Five (5) pipes where the velocity = 0	Three (3) pipes where the velocity = 0	Six (6) failed constraints on 2” pipes
Planned Development with EST Off-Line	One (1) pipe where the velocity = 0	Four (4) pipes where the velocity = 0	Two (2) pipes where the velocity = 0	Six (6) failed constraints on 2” pipes

8.5 Recommendations

There are four (4) project recommendations to alleviate indications of pressure, flow rate, and fire flow reliability. Improvements have been prioritized as follows:

1. Relocate potable water main along Kennedy Blvd. to accommodate plans by Orange County to widen Kennedy Blvd.
    a. Design/Permit/Relocation of 12-inch PVC pipe from Lake Weston to S. Keller.
    b. Design/Permit/Relocation/Upsize and Abandonment of A/C pipe from S. Keller to WTP to at least 12-inch.
2. Upsize WTP 10-inch discharge water main pipe to at least 16-inch PVC from WTP to Kennedy Blvd.
3. Upsize selected water mains to at least 8-inch PVC to meet fireflow reliability.
4. Establish water distribution R/R program to replace water mains less than 6-inches and substandard materials (Asbestos Cement/Galvanized/Unlined Cast Iron).

9.0 Capital Improvements Program Recommendations & Costs

This section of the Master Plan report will summarize the estimated capital costs for the recommended improvements to the PWS. The estimated costs should be considered a budgetary planning guide. As Eatonville considers moving forward with a project, the costs should be updated to reflect changes that may have occurred and to account for inflationary effects.

The construction costs presented in this section include cost allocations for the contractor's general conditions, overhead & profit (OH&P) engineering and Class 4 contingency as follows:

- General conditions include the contractor's costs for mobilization and demobilization, bonds and insurance, salaries for the project manager and project superintendent and temporary facilities. General conditions were estimated at 10% of the construction value before OH&P.
- Contractor's OH&P was estimated at 15% of the construction value plus a contingency of 15% for a total OH&P of 30%.
- Engineering (Design, Permitting, Bidding and Construction Administration Services) were estimated at 15% for the Master Plan level.
- Class 4 Cost Estimate Contingency +/- 40%
- All costs presented are referenced to 2022 dollars.

9.1 Potable Water System Recommendations

The following are recommendations for Eatonville's PWS water supply, treatment, storage, pumping and distribution in order of priority:

Phase I (Figure 9-1)

1. Relocate potable water main along Kennedy Blvd. to accommodate plans by Orange County to widen Kennedy Blvd.
    a. Design/Permit/Relocation of PVC pipe from Lake Weston to S. Keller.

b. Design/Permit/Relocation and Abandonment of A/C pipe from S. Keller to WTP.

2. Upsize WTP discharge water main pipe to at least 16-inch PVC from WTP to Kennedy Blvd.

Phase 2 (Figure 9-2)

3. Modify CUP to meet future potable water demands.
    a. Modify CUP limit to 0.420-mgd AADD relative to the CFWI 2025 UFA limitations.
    b. Permit LFA well to meet future demands. Includes Extended Period Simulation (EPS) hydrogeologic modeling impact evaluation.
4. Explore options to increase well field pumping capacity from 1,000 gpm to 2,300 gpm.
    a. Conduct well pump yield step drawdown test.
    b. Upsize well pump and motors.
5. Design/Permit/Construct New WTP to replace Existing WTP
    a. Construct new 500,000-gallon GST to meet fire storage requirements. Include demonstration of 4-log virus inactivation CT disinfection calculations to increase consumer confidence.
    b. Construct new WTP operations building to include new HSPs, chemical feed systems and diesel generator.

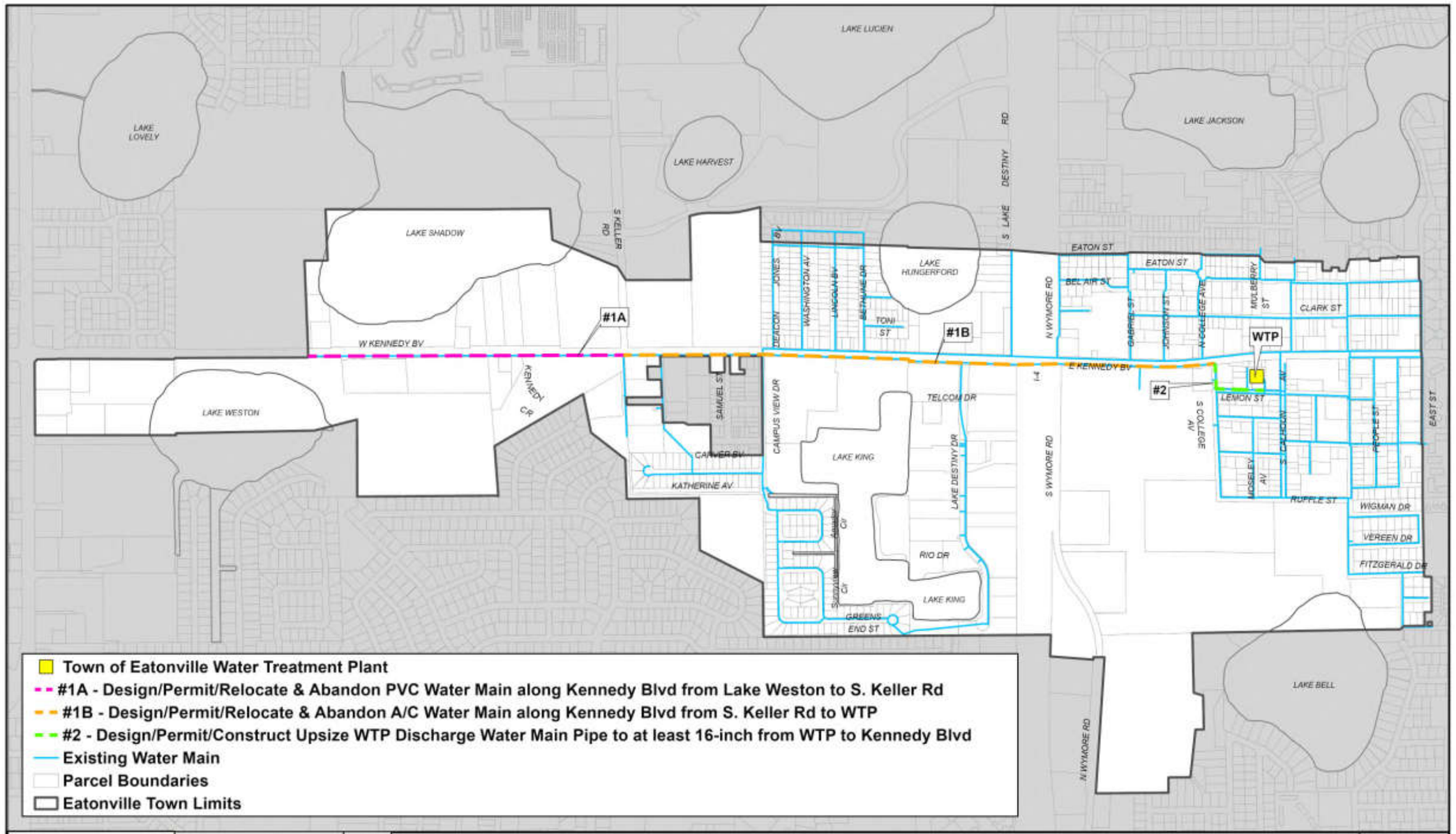
Phase 3 (Figure 9-3)

6. Upsize selected water mains to at least 8-inch PVC to meet fireflow reliability.
7. Permit/Design/Construct/Test LFA well to serve as AWS to meet demands beyond 2025.
8. Coordinate with City of Maitland to establish emergency interconnections.
    a. Option 1 – Interconnect at S. Keller & Kennedy
    b. Option 2 – Intersection of S. Lake Destiny Rd. & Kennedy Blvd

Phase 4 (Figure 9-4)

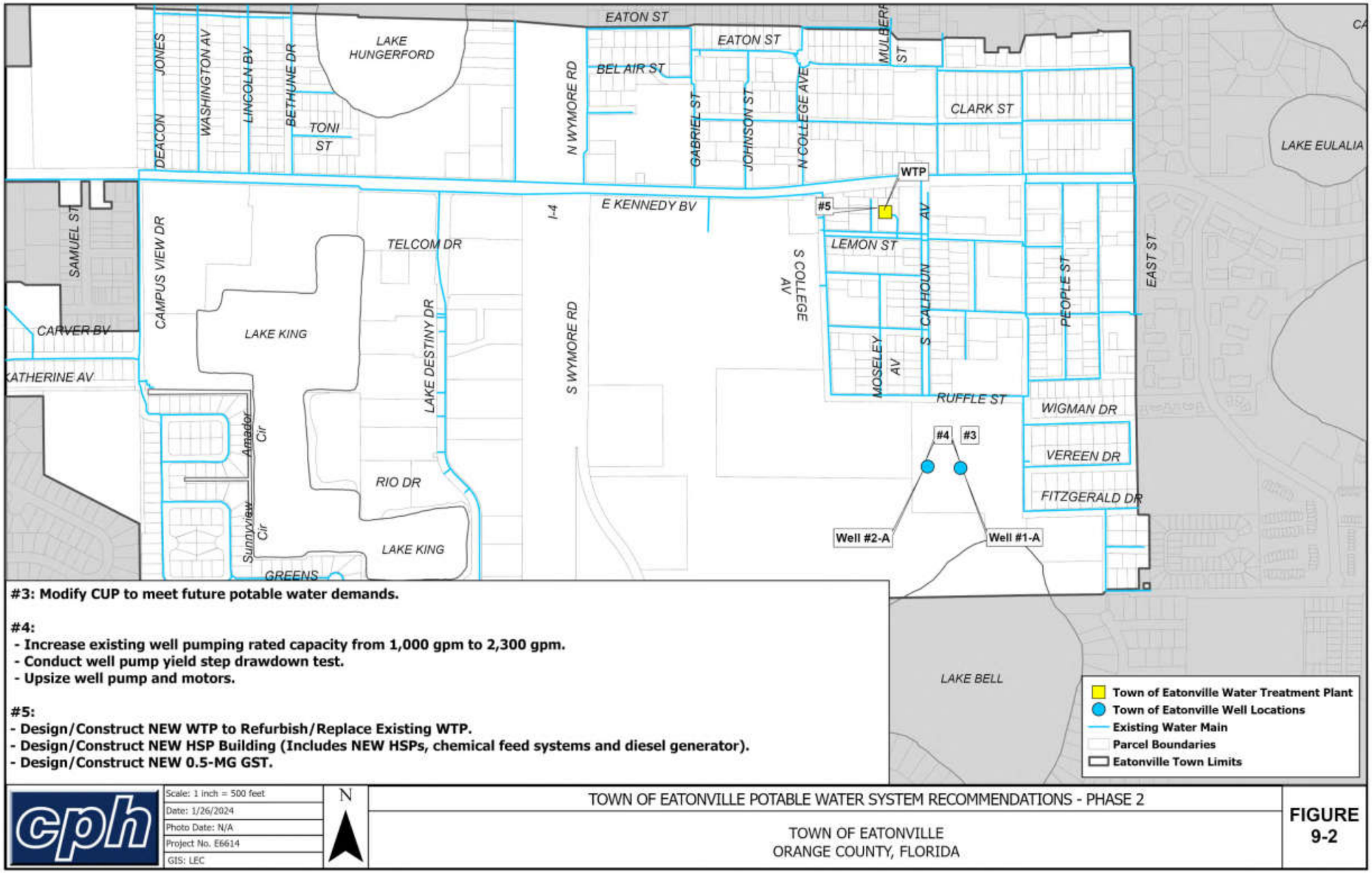
9. Establish water distribution (R/R) program to replace water mains less than 6-inches and substandard materials (Asbestos Cement/Galvanized/Unlined Cast Iron), and inoperable isolation valves.

FIGURE 9-1: Phase 1 Potable Water CIP Improvements



cph	Scale: 1 inch = 800 feet Date: 1/26/2024 Photo Date: N/A Project No. E6614 GIS: LEC	N	TOWN OF EATONVILLE POTABLE WATER SYSTEM RECOMMENDATIONS - PHASE 1 TOWN OF EATONVILLE ORANGE COUNTY, FLORIDA	FIGURE 9-1

FIGURE 9-2: Phase 2 Potable Water CIP Improvements



#3: Modify CUP to meet future potable water demands.

#4:
- **Increase existing well pumping rated capacity from 1,000 gpm to 2,300 gpm.**
- **Conduct well pump yield step drawdown test.**
- **Upsize well pump and motors.**

#5:
- **Design/Construct NEW WTP to Refurbish/Replace Existing WTP.**
- **Design/Construct NEW HSP Building (Includes NEW HSPs, chemical feed systems and diesel generator).**
- **Design/Construct NEW 0.5-MG GST.**

Scale:	1 inch = 500 feet
Date:	1/26/2024
Photo Date:	N/A
Project No.	E6614
GIS:	LEC

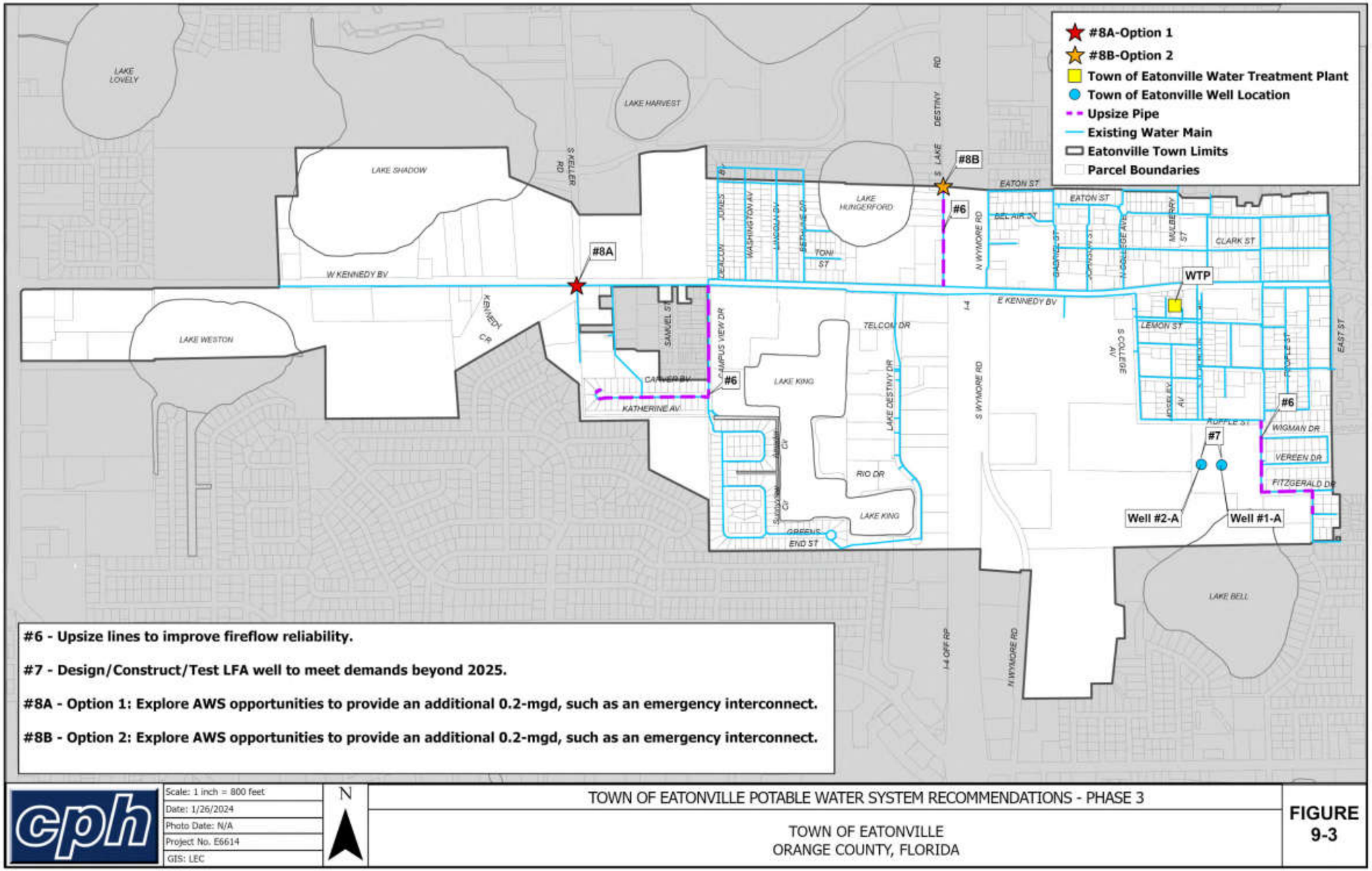
N

TOWN OF EATONVILLE POTABLE WATER SYSTEM RECOMMENDATIONS - PHASE 2

TOWN OF EATONVILLE
ORANGE COUNTY, FLORIDA

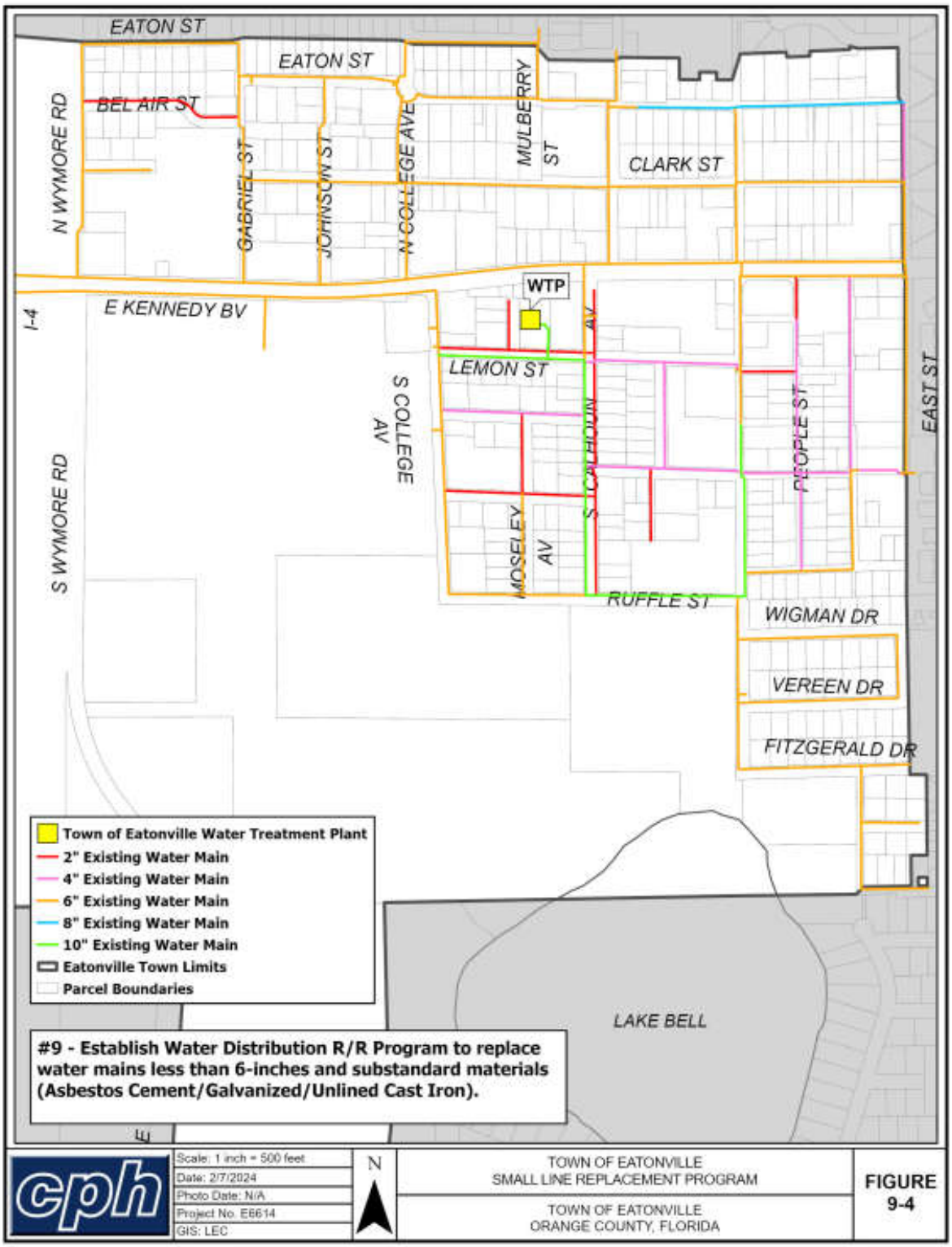
FIGURE 9-2

FIGURE 9-3: Phase 3 Potable Water CIP Improvements



cph	Scale: 1 inch = 800 feet Date: 1/26/2024 Photo Date: N/A Project No. E6614 GIS: LEC	N	TOWN OF EATONVILLE POTABLE WATER SYSTEM RECOMMENDATIONS - PHASE 3 TOWN OF EATONVILLE ORANGE COUNTY, FLORIDA	FIGURE 9-3

FIGURE 9-4: Phase 4 Potable Water CIP Improvements



9.2 Suggested CIP Program

The total probable project cost for the recommended facilities to serve Oakland's potable water system is **$13.8 million**. The projects would be partially funded by a mixture of grants, impact fees, developer contributions, etc. resulting in an estimated cost per residential connection of approximately **$8,107 per connection** assuming 1,700 total connections (800 existing + 900 planned). **Table 9-1** presents the total project costs for the suggested 5-year CIP program, as well as a tentative schedule.

Appendix F presents the Eatonville's Current Capital Improvements Program projects. Note that the summary includes costs for development of alternative water supply (AWS) sources for Eatonville. The future for water supply in Central Florida is difficult to predict. Clearly, the SJRWMD is encouraging the water supplies within the CFWI Service Area to look beyond groundwater for other water sources. Eatonville's financial planning will need to be updated as future water supplies become more defined.

TABLE 9-1: Suggested 5-year CIP

CIP #	PARAMETER Description	Priority	Length	Upgrade/Size	LOS Impact	Funded (Yes/No)	Funding Source	Project Costs	FY2023/24 Requested	FY2024/25 Proposed	FY2025/26 Proposed	FY2026/27 Proposed	FY2027/28 Proposed	FY2028 to 2033 Proposed
	POTABLE WATER (PW)													
PW-1A	Design/Permit/Relocation of PVC pipe from Lake Weston to S. Keller.	1												
PW-1B	Design/Permit/Relocation and Abandonment of A/C pipe fom S. Keller to WTP.	1	5,850		Improve System Reliability	No	Repair/Replacement	$ 2,018,000			$ 263,000	$ 1,755,000		
PW-2	Upsize WTP discharge water main pipe to at least 16-inch PVC from WTP to Kennedy Blvd.	1	710		Improve System Reliability	No	Impact fees	$ 213,000		$ 213,000				
PW-3	Modify CUP to meet future potable water demands.	2			Increase Capacity	No	DEO Grant	$ 75,000	$ 75,000					
PW-4A	Conduct well pump yield step drawdown test.	2			Increase Capacity	No	DEO Grant	$ 50,000		$ 50,000				
PW-4B	Upsize well pump and motors.	2			Increase Capacity	No	Impact fees	$ 150,000			$ 150,000			
PW-5A	Construct new 500,000-gallon GST to meet fire storage requirements. Include demonstration of 4-log virus inactivation CT disinfection calculations to increase consumer confidence.	2		0.5	Increase Capacity	No	Impact fees	$ 1,150,000			$ 150,000	$ 1,000,000		
PW-5B	Construct new WTP operations building to include new HSPs, chemical feed systems and diesel generator.	2			Improve System Reliability	No	DEO Grant	$ 4,650,000	$ 25,000	$ 25,000		$ 600,000	$ 4,000,000	
PW-6	Upsize selected water mains to at least 8-inch PVC to meet fireflow reliability.	3			Improve System Reliability	No	Repair/Replacement	$ 35,000	$ 35,000					
PW-7	Design/Permit/Construct/Test LFA well to serve as AWS to meet demands beyond 2025.	3	1000	1500	Increase Capacity	No	Impact Fees	$ 2,000,000						$ 2,000,000
PW-8	Coordinate with City of Maitland to establish emergency interconnections.	3												
PW-9	Establish water distribution R/R program to replace water mains less than 6-inch and substandard materials (Asbestos Cement/Galvanized/Unlined Cast Iron).	4												
	SUBTOTAL - Potable Water							$ 10,341,000	$ 135,000	$ 288,000	$ 563,000	$ 3,355,000	$ 4,000,000	$ 2,000,000

Priority

0 In Progress 0 -1 yrs.

1 Immediate 1 - 3 yrs.

2 Near-Term 3 - 5 yrs.

3 Long-Term Beyond 5 yrs.

9.3 Other Costs

Other costs Eatonville should factor into financial planning include land, legal, survey, geotechnical and costs associated with financing, lobbying and other non-engineering professional fees.

9.4 Cost Updates

The probable construction costs included in the Master Plan are expressed in 2022 dollars. The Engineering News Record Construction Cost Index (CCI) may be used for updating costs in the future. The 2022 CCI = 13175.00 (based on 1913).

9.5 Discussion of Financing Alternatives

The following sections discuss funding alternatives and other available options for capital projects.

9.5.1 Current Revenues

This funding alternative uses revenues from the customer usage rates for the water demand. Current revenues include the monthly base charge plus a charge per 1000 gallons based on water use. The revenues are used for operation and maintenance costs, capital projects and renewal and replacement of equipment.

9.5.2 Water Impact Fees/Funds

Capital Improvement Funds can also be available from a Water System Impact Fee Fund. Impact fees are collected from new construction within the system to cover the cost of expansion of the water system improvement required for growth. **Currently, Eatonville does not have utility impact fees.**

9.5.3 Revenue Bonds

A revenue bond is a type of municipal bond whose guarantee of repayment is solely from revenues generated by a specified revenue-generating entity associated with the purpose of the bonds, rather than from a tax. Revenue bonds are unlike general obligation bonds because only the revenues specified in the legal contract between the bond holder and bond issuer are required to be used for repayment of the principal and interest of the revenue bonds.

9.5.4 Grants

Grants for municipal capital improvement projects are available from agencies such as the following:

- U.S. Department of Agriculture (USDA),
- Community Redevelopment Agency (CRA Block Grants),
- Florida Department of Environmental Protection (FDEP) State Revolving Fund (SRF) and
- Local Water Management District (WMD).

9.5.5 Developer Contributions

Developer contributions are generally obtained from the developer of a project where a utility extension is required. Developer contributions may also be used if an upgrade or upsizing of an existing utility is required to adequately serve that project. Often the developer contribution is used to, at least partially, offset the required impact fee.

9.5.6 Renewal and Replacement Funds

Renewal and Replacement (R&R) Funds are used to replace worn or failing equipment or to improve efficiency of systems. R&R Funds are also used to rehabilitate/recondition equipment or structures. R&R Funds are used to make sure facilities are being well maintained and are in good working condition.

9.5.7 FDEP State Revolving Funds (SRF)

A loan from the FDEP SRF is a viable option for funding future major projects at a low interest rate. SRF funding is also available for wastewater and reclaimed water projects. **Currently, the FDEP Drinking Water SRF loan rate is 1.42% (Jan 2024).**

9.5.8 Future Projects (undetermined funding)

There are projects that are beyond the normal planning window in terms of funding. Projects that are over 10 years in the future are not funded nor are there plans for funding. The future projects are growth related projects and would probably be funded by Impact Fees or by the developer of the project. As

growth occurs, the future projects become more focused. At that time, the Town would place the project in a 5-year CIP program for funding with a clear picture as when the project needs to be constructed.

APPENDIX A: SJRWMD CUP No. 3307-4

CONSUMPTIVE USE TECHNICAL STAFF REPORT
18-Dec-2012
APPLICATION #: 20-095-3407-4

Owner: Town of Eatonville
307 E Kennedy Blvd
Eatonville FL 32751 USA
(407) 623-1313

Applicant: Town of Eatonville
Bruce Mount
307 E Kennedy Blvd
Maitland FL 32751 USA
(407) 623-8906

Agent: Town of Eatonville
Bruce Mount
307 E Kennedy Blvd
Maitland FL 32751 USA
(407) 623-1313

Compliance Contact: Damaris Persaud
307 E Kennedy Blvd
Maitland FL 32751 USA
(407) 623-8904

Project Name: Town of Eatonville (Renewal)
County: Orange

Located in CFCA: Yes
Objectors: No

Authorization Statement:

The District authorizes, as limited by the attached permit conditions, the use of 146.0 million gallons per year of ground water from the Floridan aquifer via two existing Upper Floridan Aquifer wells to supply a population of 2,827 in 2032 with water for household, commercial/industrial, essential, water utility and unaccounted type uses.

Recommendation: Approval
Reviewers: Dwight Jenkins; Allyson Grosmaire

WATER USE SUMMARY:

Staff's Recommendation: Approval

Recommended Permit Duration and Compliance Reporting: 20-year duration permit with a 10-year compliance report required pursuant to section 373.236(4), Florida Statues. The permittee is required to comply with, and submit all information and data required by, the limiting conditions set forth in the permit.

USE STATUS: This is a new use since the applicant did not timely apply for a renewal of the existing permit. The applicant is requesting a significant decrease in allocation over what was previously permitted (0.400 mgd versus 0.647 mgd).

PROJECT DESCRIPTION:

Project Location:

The Town of Eatonville is located approximately 5 miles north of downtown Orlando, in Orange County. The Town is bisected by I-4. The service area is bordered on the north and east by the City of Maitland, on the south by the City of Winter Park and on the west by unincorporated Orange County.

Background:

The Town of Eatonville provides potable water for an area of Central Orange County encompassing approximately 640 acres. The utility's service area is primarily made up of light commercial and residential customers. The town's previous Consumptive Use Permit (CUP) was issued in May 2007 with an expiration date of May 8, 2012. This application was received on November 6, 2012. This is nearly 7 months past the previously permit's expiration date and, therefore, this application must be considered as a new use.

Water Supply System Description:

The Town's water supply system consists of a supply treatment plant and two 12-inch Floridan aquifer wells (Wells 3 and 4). The Town also owns two inactive wells (wells 1 & 2). The inactive wells have been capped and are not anticipated to be used in the future.

Water Use Description:

The Town of Eatonville provides potable water for a service area of approximately 640 acres. The utility's service area is primarily made up of light commercial and residential customers. The applicant utilized the District's water supply planning numbers in calculating the requested allocation. The Town's current per capita use is 141 gallons per capita per day and the per capita is not anticipated to change in the future. The applicant is requesting an allocation which is only 62% of what was previously permitted (0.400 mgd versus 0.647 mgd).

PERMIT APPLICATION REVIEW:

Section 373.223, Florida Statutes (F.S.), and Section 40C-2.301, Florida Administrative Code (F.A.C.), require an applicant to establish that the proposed use of water:

(a) is a reasonable-beneficial use;
(b) will not interfere with any presently existing legal use of water; and,
(c) is consistent with the public interest.

In addition, the above requirements are detailed further in the District's Applicant's Handbook: Consumptive Uses of Water, February 2, 2012("A.H.") District staff has reviewed the consumptive use permit application pursuant to the above-described requirements and have determined that the application meets the conditions for issuance of this permit. Highlights of the staff review are provided below.

REASONABLE BENEFICIAL USE CRITERIA:

Economic and Efficient Utilization:

Although there is room for growth, the Town does not anticipate it will see significant growth over the next 20 years. Since the Town used the District's projections from the Water Supply Plan and since the per capita use, both current and projected, are within the District guideline of 150 gpcd, staff concludes that reasonable assurances have been provided that the proposed use of water is in such quantity as is necessary for economic and efficient utilization pursuant to section 10.3 (a), A.H., provided the permittee complies with the conditions recommended for this permit.

Lowest Quality Water Source:

There is no source of reclaimed water available to the Town of Eatonville. The town does not own or operate a wastewater treatment plant nor does it anticipate building such a plant over the duration of this permit. All untreated wastewater generated by the town is sent to the City of Altamonte Springs for treatment and incorporation into

Altamonte Springs reclaimed water program. Most of Altamonte Springs reuse is already committed to reasonable beneficial uses in that service area and there is no infrastructure to return treated reuse to the town. Staff concluded that reasonable assurances have been provided that all lowest quality sources (wastewater as reclaimed water) are being put toward beneficial use pursuant to sections 10.3(f), A.H.

Water Conservation:

Staff evaluated the water conservation measures implemented by the applicant. The applicant has a conservation rate structure and has proposed the implementation of all the listed water conservation measures in the District Water Conservation Plan Form. Staff concluded that reasonable assurances have been provided that all available water conservation measures are currently implemented or will be implemented by the applicant pursuant to sections 10.3(e) and 12.2.5, A.H.

Environmental or Economic Harm:

Staff evaluated whether the environmental or economic harm caused by the proposed consumptive use has been reduced to an acceptable amount. Staff evaluated whether the proposed withdrawals of water would harm wetlands, surface waters, and springs. During the review of this permit application, District staff utilized the results of groundwater flow modeling and reviewed aerial photography of the site and environs. Although there are no significant wetlands or surface waters within the service area, staff determined that the wetlands and surface waters in the vicinity of the service area would not be expected to experience any shifts or changes in vegetation, soil subsidence, or tree stress or mortality due to the indiscernible drawdown in surficial groundwater levels predicted by the previously discussed model simulations for the proposed use. In addition, the requested allocation is 62% less than that previously permitted and there has been no indications of impacts associated with the existing use. Based on the above, Staff concludes that the applicant has provided reasonable assurance that the proposed withdrawal will not cause unacceptable environmental harm to water levels in wetlands or surface waters for the duration of this permit pursuant to Sections 9.4.3, A.H. and 10.3(d), A.H.

Interference with Existing Legal Uses of Water:

Staff evaluated whether the proposed use will cause an interference with a legal use of water. The closest existing permitted wells to the Town of Eatonville well field are a City of Maitland well field located approximately 2300 ft north, and a City of Winter Park well field located approximately 4200 ft south. The District used an analytical model to

evaluate the expected groundwater conditions. The model results indicated no appreciable surficial drawdown and approximately 0.? feet of drawdown in a small area surrounding the wells within the well field. Staff concluded that these analyses provide reasonable assurance that the proposed use of water will not cause an interference with an existing legal use of water

Public Interest:

Staff evaluated whether the proposed use is consistent with the public interest. The F.A.C. 40C-2.501 (2)(d)(h)(k)(s)(u), identifies household, landscape irrigation, essential and water utility uses as legitimate type use classifications.

These type uses are so deemed consistent within the public interest, as they are beneficial to the overall well being of the people and are not detrimental to the water resources in the area.

PERMIT DURATION: 20 years.

Conditions

1. Prior to use, all proposed wells must be equipped with totalizing flow meters. All flowmeters must maintain +/- 5% accuracy, be verifiable and be installed according to the manufacturer's specifications.

2. The permittee must maintain all flowmeters. In case of failure or breakdown of any meter, the District must be notified in writing within 5 days of its discovery. A defective meter must be repaired or replaced within 30 days of its discovery.

3. The permittee must have all flow meters checked for accuracy at least once every 10 years within 30 days of the anniversary date of permit issuance, and recalibrated if the difference between the actual flow and the meter reading is greater than 5%. District Form No. EN-51 must be submitted to the District within 10 days of the inspection/calibration.

4. The permittee shall meter all service connections.

5. The permittee shall use the lowest quality water source, such as reclaimed water, surface/storm water, or alternative water supply, to supply the needs of the project when deemed feasible pursuant to District rules and applicable state law.

6. The permittee shall submit, to the District, a compliance report pursuant to subsection 373.236(4), F.S., every 10 years during the term of the permit. The permittee shall submit the report by December 31, 2022. The report shall contain

sufficient information to demonstrate that the permittee's use of water will continue, for the remaining duration of the permit, to meet the conditions for permit issuance set forth in the District rules that existed at the time the permit was issued for 20 years by the District.

7. All irrigation shall be in conformity with the requirements set forth in subsection 40C-2.042(2), F.A.C.

8. District authorized staff, upon proper identification, will have permission to enter, inspect and observe permitted and related facilities in order to determine compliance with the approved plans, specifications and conditions of this permit.

9. Nothing in this permit should be construed to limit the authority of the St. Johns River Water Management District to declare a water shortage and issue orders pursuant to Section 373.175, F.S., or to formulate a plan for implementation during periods of water shortage, pursuant to Section 373.246, F.S. In the event a water shortage is declared by the District Governing Board, the permittee must adhere to the water shortage restrictions, as specified by the District, even though the specified water shortage restrictions may be inconsistent with the terms and conditions of this permit.

10. Prior to the construction, modification or abandonment of a well, the permittee must obtain a water well permit from the St. Johns River Water Management District or the appropriate local government pursuant to Chapter 40C-3, F.A.C. Construction, modification, or abandonment of a well will require modification of the consumptive use permit when such construction, modification, or abandonment is other than that specified and described on the consumptive use permit application form.

11. Leaking or inoperative well casings, valves, or controls must be repaired or replaced as required to eliminate the leak or make the system fully operational.

12. The permittee's consumptive use of water as authorized by this permit shall not interfere with legal uses of water existing at the time of permit application. If interference occurs, the District shall revoke the permit, in whole or in part, to curtail or abate the interference, unless the interference associated with the permittee's consumptive use of water is mitigated by the permittee pursuant to a District-approved plan.

13. The permittee's consumptive use of water as authorized by this permit shall not have significant adverse hydrologic impacts to off-site land uses existing at the time of permit application. If significant adverse hydrologic impacts occur, the District shall revoke the permit, in whole or in part, to curtail or abate the adverse impacts, unless the impacts associated with the permittee's consumptive use of water are mitigated by the permittee pursuant to a District-approved plan.

14. The District must be notified, in writing, within 30 days of any sale, conveyance, or other transfer of a well or facility from which the permitted consumptive use is made or within 30 days of any transfer of ownership or control of the real property at which the permitted consumptive use is located. All transfers of ownership or transfers of permits are subject to the provisions of Rule 40C-1.612, F.A.C.

15. A District-issued identification tag shall be prominently displayed at each withdrawal site by permanently affixing such tag to the pump, headgate, valve, or other withdrawal facility as provided by Rule 40C-2.401, F.A.C. Permittee shall notify the District in the event that a replacement tag is needed.

16. The permittee's consumptive use of water as authorized by this permit shall not significantly and adversely impact wetlands, lakes, rivers, or springs. If significant adverse impacts occur, the District shall revoke the permit, in whole or in part, to curtail or abate the adverse impacts, unless the impacts associated with the permittee's consumptive use of water are mitigated by the permittee pursuant to a District-approved plan.

17. The permittee's consumptive use of water as authorized by this permit shall not reduce a flow or level below any minimum flow or level adopted in Chapter 40C-8, F.A.C. If the permittee's use of water causes or contributes to such a reduction, then the District shall revoke the permit, in whole or in part, unless the permittee implements all provisions applicable to the permittee's use in a District-approved recovery or prevention strategy.

18. The permittee's consumptive use of water as authorized by the permit shall not cause or contribute to significant saline water intrusion. If significant saline water intrusion occurs, the District shall revoke the permit, in whole or in part, to curtail or abate the saline water intrusion, unless the saline water intrusion associated with the permittee's consumptive use of water is mitigated by the permittee pursuant to a District-approved plan.

19. The permittee's consumptive use of water as authorized by the permit shall not cause or contribute to flood damage. If the permittee's consumptive use causes or contributes to flood damage, the District shall revoke the permit, in whole or in part, to curtail or abate the flood damage, unless the flood damage associated with the permittee's consumptive use of water is mitigated by the permittee pursuant to a District-approved plan.

20. The permittee's consumptive use of water as authorized by the permit shall not cause or contribute to a violation of state water quality standards (existing at the time of permit issuance) in receiving waters of the state, as set forth in Chapters 62-3, 62-4, 62-302, 62-520, and 62-550, F.A.C., including any anti-degradation provisions of paragraphs 62-4.242(1)(a) and (b), subsections 62-4.242(2) and (3), and Rule 62-302.300, F.A.C., and any special standards for Outstanding

National Resource Waters set forth in subsections 62-4.242(2) and (3), F.A.C. If violations occur, the District shall revoke the permit, in whole or in part, to curtail or abate the violations, unless the violations associated with the permittee's consumptive use of water are mitigated by the permittee pursuant to a District-approved plan.

21. All submittals made to demonstrate compliance with this permit must include CUP number 20-095-3407-4 plainly labeled on the submittal.

22. This permit will expire 20 years from the date of issuance.

23. Total withdrawal from existing well No.'s 3 and 4, (GRS Station No's 38634 and 38635) must be recorded continuously, totaled monthly, and reported to the District at least every six months for the duration of this permit using District Form No. EN-50. The reporting dates each year will be as follows:

Reporting Period	Report Due Date
January - June	July 31
July - December	January 31

24. Maximum annual withdrawals from Well numbers 3 and 4 must not exceed146.0 million gallons.

APPENDIX B: 2022 Consumer Confidence Report (CCR)

2022 Annual Drinking Water Quality Report
TOWN OF EATONVILLE
PWS# 3480327

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of water and the services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our ground water is obtained from two wells. The wells draw from the Floridan Aquifer. The water is treated with aeration and is chlorinated for disinfection purposes.

In 2022 the Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are no potential sources of contamination identified for this system. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at https://prodapps.dep.state.fl.us/swapp/

This report shows our water quality results and what they mean.

If you have any questions about this report or concerning your water utility, please contact **Public Works Department (407) 623-8904**. We encourage our valued customers to be informed about their water utility.

Town of Eatonville routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2022. Data obtained before January 1, 2022 and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Maximum residual disinfectant level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum residual disinfectant level goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

“ND” means not detected and indicates that the substance was not found by laboratory analysis.

“N/A” not applicable

Parts per billion (ppb) or Micrograms per liter (µg/l) – one part by weight of analyte to 1 billion parts by weight of the water sample.

Parts per million (ppm) or Milligrams per liter (mg/l) – one part by weight of analyte to 1 million parts by weight of the water sample.

Picocurie per liter (pCi/L) - measure of the radioactivity in water.

Test Results Table

Inorganic Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	8/21	N	.0047	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	8/21	N	.00120	N/A	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Sodium (ppm)	8/21	N	17.5	N/A	N/A	160	Salt-water intrusion, leaching from soil

Stage 1 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	1/22- 12/22	N	1.3	0.3-1.4	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes

For chlorine, the level detected is the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. The range of results is the range of results of all the individual samples collected during the past year.

Stage 2 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Haloacetic Acids (five) (HAA5) (ppb)Gabriel Hydrent & East Tap	2/22	Y	68.5	46.1 - 68.5	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb) Gabriel Hydrent & East Tap	2/22	Y	115 (Highest LRRA)	58.8 - 115	NA	MCL = 80	By-product of drinking water disinfection
Haloacetic Acids (five) (HAA5) (ppb)	5/22	N	24.6	24.6 – 57.6	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	5/22	N	24.1	24.1 - 98.6	NA	MCL = 80	By-product of drinking water disinfection
Haloacetic Acids (five) (HAA5) (ppb)	8/22	N	19.9	19.9 - 24	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	8/22	N	58.2	43 - 58.2	NA	MCL = 80	By-product of drinking water disinfection
Haloacetic Acids (five) (HAA5) (ppb)	11/22	N	56.5	44.7 - 56.5	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb) Gabriel Hydrent & East Tap	11/22	Y	99.1 (Highest LRRA)	66.8 - 99.1	NA	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Exceeded Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	10/21	N	0.417	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	10/21	N	1.0	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. Our water system was in violation of federal and state water quality standards for Disinfection By-Products from July 1, 2021 through June 30, 2022. The levels of Disinfection By-Products are shown in the Test Results table. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Town of Eatonville is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
(B) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
(D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the number of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

We at Town of Eatonville would like you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call any of the numbers listed.

Florida Department of Environmental Protection
Safe Drinking Water Program Laboratory Reporting Format

PUBLIC WATER SYSTEM INFORMATION (to be completed by sampler – please type or print legibly)

System Name: Town Of Eatonville PWS I.D. # 3 4 8 0 3 2 7

System Type (check one): ☒Community ☐Nontransient Noncommunity ☐Transient Noncommunity

Address: 307 Kennedy Blvd.

City/State: Eatonville, FL Zip: 32751

Phone#: 386-623-8904 Fax#: Email Address:

SAMPLE INFORMATION (to be completed by sampler)

Sample Number: B1 Sample Date: 8/18/21 Sample Time: 1000 (AM) PM (Circle One)

Sample Location (be specific) Plant Tap Location Code:

Disinfectant Residual (Required when reporting results for trihalomethanes and haloacetic acids): 1.4 mg/L Field pH:

Sample Type (Check Only One)

- ☐Distribution
- ☑Entry Point (to Distribution) 28
- ☐Plant Tap (not for compliance with 62-550)
- ☐Raw (at well or intake)
- ☑Max Residence Time
- ☐Ave Residence Time
- ☐Near First Customer

Reason(s) for Sample (Check all that apply)

- ☑Routine Compliance with 62-550
- ☐Confirmation of MCL Exceedance*
- ☐Composite of Multiple Sites**
- ☐Replacement (of Invalidated Sample)
- ☐Special (not for compliance with 62-550)
- ☐Clearance (permitting)
- ☐Other:

Sampling Procedure Used or Other Comments:

*See 62-550.500(6) for requirements and restrictions And 62-550.512(3) for nitrate or nitrite exceedances.

**See 62-550.550(4) for requirements and attach a results page for each site.

SAMPLER CERTIFICATION

I, Zach Bubar (Print Name), Sampler (Print Title), do HEREBY CERTIFY that the above public water system and sample collection information is complete and correct.

Signature: Date: 8/18/21

Certified Operator #: A 3758 Carlos A Tola Phone #: 386 589 0660 Sampler's Fax #:

Reporting Format 62-550 /30
Effective January 1995, Revised February 2010

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

LABORATORY CERTIFICATION INFORMATION (to be completed by lab - please type or print legibly)

Lab Name: Flowers Chemical Laboratories, Inc. Florida DOH Certification #: E83018 Certification Expiration Date: 6/30/2022

ATTACH CURRENT DOH ANALYTE SHEET*

Address: P. O. Box 150597, Altamonte Springs, FL 32715-0597 Phone #: 407-339-5984

Were any analyses subcontracted? ☒ Yes ☐ No If yes, please provide DOH certification number(s): _____

ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB*

ANALYSIS INFORMATION(to be completed by lab) Date Sample(s) Received: 08/18/21

PWS ID (From Page 1): 3480327 Sample Number (From Page 1): 480543DW1 Lab Assigned Report # or Job ID: 480543

Group(s) analyzed and results attached for compliance with Chapter 62-550, F.A.C. (check all that apply)

Inorganics	Synthetic Organics	Volatile Organics	Disinfection Byproducts	Radionuclides	Secondaries
☒ All Except Asbestos	☐ All 30	☒ All 21	☐ Trihalomethanes	☒ Single Sample	☒ All 14
☐ Partial	☒ All Except Dioxin	☐ Partial	☐ Haloacetic Acids	☐ Qtrly Composite**	☐ Partial
☐ Nitrate	☐ Partial		☐ Chlorite		
☐ Nitrite	☐ Dioxin Only		☐ Bromate		
☐ Asbestos					

LAB CERTIFICATION

I, Jefferson S. Flowers, Technical Director, do HEREBY CERTIFY that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature: Date: 09/02/21

* Failure to provide a valid and current Florida DOH certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report and possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

CONFIRMATION AND NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE MCL EXCEEDANCES

NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH A "U" QUALIFIER. (Non-detects reported as "BDL" or with a "<" are not acceptable.)

Compliance Determination (to be completed by DEP or DOH - attach notes as necessary)

Sample Collection & Analysis Satisfactory ☐ Yes ☐ No Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____

REVIEWED
By Alyssa Lenkel at 1:57 pm, Jun 23, 2022

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

INORGANIC CONTAMINANTS
62-550.310(1)

Report Number / Job ID: 480543DW1
PWS ID (From Page 1): 3480327

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier	Analytical Method	Lab MDL	Analysis Date	Analysis Time	DOH Lab Cert #
1038	Nitrate+Nitrite(as N)	10	mg/L	0.200	U	EPA300.0	0.200	08/18/21		E83018
1040	Nitrate (as N)	10	mg/L	0.200	U	EPA300.0	0.200	08/18/21	11:30 AM	E83018
1041	Nitrite (as N)	1	mg/L	0.200	U	EPA300.0	0.200	08/18/21	11:30 AM	E83018
1005	Arsenic	0.010	mg/L	0.00100	U	EPA200.8	0.00100	08/18/21		E83018
1010	Barium	2	mg/L	0.00470		EPA200.8	0.00200	08/18/21		E83018
1015	Cadmium	0.005	mg/L	0.00100	U	EPA200.8	0.00100	08/18/21		E83018
1020	Chromium	0.1	mg/L	0.00120	I	EPA200.8	0.00100	08/18/21		E83018
1024	Cyanide	0.2	mg/L	0.00500	U	SM4500CN-E	0.00500	08/18/21		E83018
1025	Fluoride	4	mg/L	0.249	I	EPA300.0	0.200	08/18/21		E83018
1030	Lead	0.015	mg/L	0.00100	U	EPA200.8	0.00100	08/18/21		E83018
1035	Mercury	0.002	mg/L	0.0000200	U	EPA245.1	0.0000200	08/20/21		E83018
1036	Nickel	0.1	mg/L	0.00100	U	EPA200.8	0.00100	08/18/21		E83018
1045	Selenium	0.05	mg/L	0.00200	U	EPA200.8	0.00200	08/18/21		E83018
1052	Sodium	160	mg/L	17.5		EPA200.7	0.500	08/19/21		E83018
1074	Antimony	0.006	mg/L	0.00100	U	EPA200.8	0.00100	08/18/21		E83018
1075	Beryllium	0.004	mg/L	0.000500	U	EPA200.8	0.000500	08/18/21		E83018
1085	Thallium	0.002	mg/L	0.00100	U	EPA200.8	0.00100	08/18/21		E83018

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

SECONDARY CONTAMINANTS
62-550.320

Report Number / Job ID: 480543DW1
PWS ID (From Page 1): 3480327

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier	Analytical Method	Lab MDL	Analysis Date	Analysis Time	DOH Lab Cert #
1002	Aluminum	0.2	mg/L	0.0100	U	EPA200.8	0.0100	08/18/21		E83018
1017	Chloride	250	mg/L	28.7		EPA300.0	0.400	08/18/21		E83018
1022	Copper	1	mg/L	0.00100	U	EPA200.8	0.00100	08/18/21		E83018
1025	Fluoride	2	mg/L	0.249	I	EPA300.0	0.200	08/18/21		E83018
1028	Iron	0.3	mg/L	0.0136	I	EPA200.7	0.0100	08/19/21		E83018
1032	Manganese	0.05	mg/L	0.0100	U	EPA200.7	0.0100	08/19/21		E83018
1050	Silver	0.1	mg/L	0.000500	U	EPA200.8	0.000500	08/18/21		E83018
1055	Sulfate	250	mg/L	2.95		EPA300.0	1.00	08/18/21		E83018
1095	Zinc	5	mg/L	0.00280	I	EPA200.8	0.00200	08/18/21		E83018
1905	Color	15	CU	5.00	U	SM2120 B	5.00	08/18/21	05:00 PM	E83018
1920	Odor	3	TON@40C	1.00	U	SM2150 B	1.00	08/18/21	12:35 PM	E83018
1925	pH	6.5 -8.5	pH	8.25	Q	SM4500-H B	0.0100	08/19/21	06:24 PM	E83018
1930	Total Dissolved Solids	500	mg/L	224		SM2540 C	2.50	08/18/21		E83018
2905	Foaming Agents	0.5	mg/L	0.200	U	SM5540 C	0.200	08/18/21	05:20 PM	E83018

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

VOLATILE ORGANICS
62-550.310(2)(b)

Report Number / Job ID: 480543DW1
PWS ID (From Page 1): 3480327

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier	Analytical Method	Lab MDL	RDL	Analysis Date	Analysis Time	DOH Lab Cert #
2378	1,2,4,-trichlorobenzene	70	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2380	cis-1,2-Dichloroethylene	70	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2955	Xylenes	10000	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2964	Dichloromethane	5	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2968	o-dichlorobenzene	600	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2969	Para-dichlorobenzene	75	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2976	Vinyl Chloride	1	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2977	1,1-Dichloroethylene	7	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2979	trans-1,2-Dichloroethylene	100	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2980	1,2-Dichloroethane	3	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2981	1,1,1-trichloroethane	200	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2982	Carbon tetrachloride	3	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2983	1,2-dichloropropane	5	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2984	Trichloroethylene	3	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2985	1,1,2-trichloroethane	5	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2987	Tetrachloroethylene	3	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2989	Monochlorobenzene	100	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2990	Benzene	1	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2991	Toluene	1000	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2992	Ethylbenzene	700	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018
2996	Styrene	100	ug/L	0.500	U	EPA524.2	0.500	0.5	08/24/21		E83018

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

SYNTHETIC ORGANICS
62-550.310(2)(c)

Report Number / Job ID: 480543DW1
PWS ID (From Page 1): 3480327

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier	Analytical Method	Lab MDL	RDL	Extraction Date	Analysis Date	Analysis Time	DOH Lab Cert #
2005	Endrin	2	ug/L	0.0100	U	EPA505	0.0100	0.01	08/24/21	08/24/21		E83018
2010	Lindane	0.2	ug/L	0.0100	U	EPA505	0.0100	0.02	08/24/21	08/24/21		E83018
2015	Methoxychlor	40	ug/L	0.0500	U	EPA505	0.0500	0.1	08/24/21	08/24/21		E83018
2020	Toxaphene	3	ug/L	0.500	U	EPA505	0.500	1	08/24/21	08/24/21		E83018
2031	Dalapon	200	ug/L	0.100	U	EPA515.4	0.100	1	08/25/21	08/30/21		E83018
2032	Diquat	20	ug/L	0.400	U	EPA549.2	0.400	0.4	08/20/21	08/23/21		E83018
2033	Endothall	100	ug/L	9.00	U	EPA548.1	9.00	9	08/23/21	08/25/21		E83018
2034	Glyphosate	700	ug/L	6.00	U	EPA547	6.00	6		08/24/21		E83018
2035	Di(2-ethylhexyl) adipate	400	ug/L	0.600	U	EPA525.2	0.600	0.6	08/25/21	08/29/21		E83018
2036	Oxamyl (Vydate)	200	ug/L	2.00	U	EPA531.1	2.00	2.0		08/19/21		E83018
2037	Simazine	4	ug/L	0.0700	U	EPA525.2	0.0700	0.07	08/25/21	08/29/21		E83018
2039	Di(2-ethylhexyl)phthalate	6	ug/L	0.600	U	EPA525.2	0.600	0.6	08/25/21	08/29/21		E83018
2040	Picloram	500	ug/L	0.100	U	EPA515.4	0.100	0.1	08/25/21	08/30/21		E83018
2041	Dinoseb	7	ug/L	0.200	U	EPA515.4	0.200	0.2	08/25/21	08/30/21		E83018
2042	Hexachlorocyclopentadiene	50	ug/L	0.100	U	EPA505	0.100	0.1	08/24/21	08/24/21		E83018
2046	Carbofuran	40	ug/L	0.900	U	EPA531.1	0.900	0.9		08/19/21		E83018
2050	Atrazine	3	ug/L	0.100	U	EPA525.2	0.100	0.1	08/25/21	08/29/21		E83018
2051	Alachlor	2	ug/L	0.200	U	EPA525.2	0.200	0.2	08/25/21	08/29/21		E83018
2065	Heptachlor	0.4	ug/L	0.0100	U	EPA505	0.0100	0.04	08/24/21	08/24/21		E83018
2067	Heptachlor epoxide	0.2	ug/L	0.0100	U	EPA505	0.0100	0.02	08/24/21	08/24/21		E83018
2105	2,4-D	70	ug/L	0.100	U	EPA515.4	0.100	0.1	08/25/21	08/30/21		E83018
2110	2,4,5-TP	50	ug/L	0.200	U	EPA515.4	0.200	0.2	08/25/21	08/30/21		E83018
2274	Hexachlorobenzene	1	ug/L	0.100	U	EPA505	0.100	0.1	08/24/21	08/24/21		E83018
2306	Benzo(a)pyrene	0.2	ug/L	0.0200	U	EPA525.2	0.0200	0.02	08/25/21	08/29/21		E83018
2326	Pentachlorophenol	1	ug/L	0.0400	U	EPA515.4	0.0400	0.04	08/25/21	08/30/21		E83018
2383	PolychlorinatedbiphenylsPCB	0.5	ug/L	0.100	U	EPA505	0.100	0.1	08/24/21	08/24/21		E83018
2931	Dibromochloropropane	0.2	ug/L	0.0200	U	EPA504.1	0.0200	0.02	08/24/21	08/24/21		E83018
2946	Ethylene Dibromide	0.02	ug/L	0.0100	U	EPA504.1	0.0100	0.01	08/24/21	08/24/21		E83018
2959	Chlordane	2	ug/L	0.0100	U	EPA505	0.0100	0.2	08/24/21	08/24/21		E83018

FLOWERS CHEMICAL LABORATORIES INCORPORATED

☐ **Flowers Chemical Laboratories, Inc.**
481 Newburyport Ave.
Altamonte Springs, FL 32701
Bus: 407-339-5984
Fax: 407-260-6110

☐ **Flowers Chemical Labs-South**
West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
Port St. Lucie, FL 34986
Bus: 772-343-8006
Fax: 772-343-8089

☐ **Flowers Chemical Labs-North**
812 S.W. Harvey Greene Dr.
Madison, FL 32340
Bus: 850-973-6878
Fax: 850-973-6878

☐ **Flowers Chemical Labs-Keys**
3980 Overseas Highway
Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8598

www.flowerslabs.com

Client: Town of Fairoaksville

Address: 307 E Kennedy Blvd

Phone: Zach Bodnar

Sampled By (PRINT): Zach Baker

Sampler Signature: Zach Baker

Date Sampled: 8/18/21

Public Water System Name:

PWS ID#: 3480327

P.O. #:

FCL Lab Coordinator:

Kit #:

COMMENTS:

Public Water System Type: ☐ Limited Use Commercial / Public ☑ Community ☐ Non-Community ☐ Non-transient / Non-Community

DRINKING WATER - Chain of Custody F.A.C. 62 - 550

480543

ITEM NO.	SAMPLE DESCRIPTION	DATE	TIME	LAB NO.	NUMBER	PRESERVATIVES: NONE	NaOH	HNO_3	HCl	$Na_2S_2O_3$	Primary Inorg.	Secondaries	VOCs	SOCs	NO_2 / NO_3	TTHM	THAA	Pb/Cu	GA / RA228 RA226	Asbestos	Field pH	Field Cl_2 Res
1	Plant Tap - AL	8/18	1000	↓ D01	21						X	X	X	X					X			2.5 mg/l
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Zach Baker	8/18									8/18/21	1125

Florida Department of Environmental Protection
Safe Drinking Water Program Laboratory Reporting Format

LABORATORY CERTIFICATION INFORMATION (to be completed by lab – please type or print legibly)

Lab Name: **KNL Environmental Testing** Florida DOH Certification #: **E84025** Certification Expiration Date: **June Renewal**

ATTACH CURRENT DOH ANALYTE SHEET*

Address: **3202 N. Florida Ave. Tampa, FL 33603** Phone #: **813-229-2879**

Were any analyses subcontracted? ☐Yes ☒No If yes, please provide DOH certification number(s): _____

ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB*

ANALYSIS INFORMATION (to be completed by lab) Date Sample(s) Received: 8-19-21

PWS ID (From Pg 1): 3480327 Sample # (From Pg 1): 48c543DW1 Lab Assigned Report # or Job ID: 21-12529

Group(s) Analyzed & Results attached for compliance with Chapter 62-550, F.A.C. (Check all that apply):

Inorganics	Synthetic Organics	Volatile Organics	Disinfection Byproducts	Radionuclides	Secondaries
☐All Except Asbestos	☐All 30	☐All 21	☐Trihalomethanes	☒Single Sample	☐All 14
☐Partial	☐All Except Dioxin	☐Partial	☐Haloacetic Acids	☐Qtrly Composite**	☐Partial
☐Nitrate	☐Partial		☐Chlorite		
☐Nitrite	☐Dioxin Only		☐Bromate		
☐Asbestos					

LAB CERTIFICATION

I, **Thomas J. Weeks** (Print Name), **Laboratory Director** (Print Title), do HEREBY CERTIFY that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature: _____ Date: 9-2-21

* Failure to provide a valid and current Florida DOH lab certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report, possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

CONFIRMATION & NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE OR NITRITE MCL EXCEEDANCES

NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH A "U" QUALIFIER. (Non-detects reported as "BDL" or with a "<" are not acceptable.)

COMPLIANCE DETERMINATION (to be completed by DEP or DOH -- attach notes as necessary)

Sample Collection & Analysis Satisfactory: ☐Yes ☐No _____ Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____

KNL Environmental Testing
3202 N. Florida Ave.
Tampa, FL 33603

Ph: (813) 229-2879 Fax: (813) 229-0002

Florida Department of Environmental Protection
Safe Drinking Water Program Laboratory Reporting Format

ADIONUCLIDES
62-550.310(6)

KNL Report Number/Job ID: 21.12529
PWS ID(From Page 1):

Client ID: Flowers Chemical Laboratories, Inc. / 480543 DW1

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier *	Analytical Method	Lab MDL	RDL	Analysis Error	Analysis Date	Analysis Time	DOH Lab Certification #
4002	Gross Alpha (incl Uranium)	15 ***	pCi/L	1.8	I	EPA 900.0	1.6	3	1.0	8-24-21	0756	E84025
4020	Radium-226	5	pCi/L	0.8	I	EPA 903.0 *****	0.3	1	0.3	8-25-21	1250	E84025
4030	Radium-228		pCi/L	0.7	I	EPA Ra-05	0.6	1	0.5	8-26-21	1146	E84025

Reporting Format 62-550.730
Effective January 1995, Revised February 2010

* Qualifier Codes: U = indicates that the compound was analyzed for but not detected.
I = the reported value is between the laboratory detection limit and the laboratory practical quantitation limit.

** If the result exceeds 5 pCi/L, a measurement for radium-226 is required. Uranium is reported separately under Contam ID 4006.

*** If the results exceed 5 pCi/L, a measurement for radium-226 is required. If the results exceed 15 pCi/L, a measurement for Combined Uranium must be reported separately. The DEP/DOH will subtract the U value from the Gross Alpha (ID 4002) to determine compliance with MCL for Gross Alpha (Excl.U) of 15 pCi/L. If the result for ID 4002 Gross Alpha (incl.Uranium) does not exceed 15 pCi/L, Combined Uranium need not be measured nor reported.

**** If using Uranium testing methods ASTM D5174 or EPA 200.8 only, then Analysis Error need not be reported.

***** 86% carrier recovery

Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Thomas Weeks (813) 229-2879.

Approved by: Thomas J. Weeks
Laboratory Director

21.12527-29

X Flowers Chemical Laboratories, Inc.

Flowers Chemical Labs South
West Park Industrial Plaza
571 N.W. Mercantile Pl. Ste. 111
Port St. Lucie, FL 34986
Bus: 772-343-8006
Fax: 772-343-8089

Flowers Chemical Labs North
812 S.W. Harvey Greene Dr
Madison, FL 32340
Bus: 850-973-6878
Fax: 850-973-6878

Flowers Chemical Labs Keys
3980 Overseas Highway Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8598

FLOWERS CHEMICAL LABORATORIES

DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY www.flowerslabs.com

KNL Labs

3202 N Florida Avenue, Tampa, FL, 33603

813-229-2879

Project Name:

P.O. #:

Client Contact: Thomas Weeks

FAX:

FCL Project Manager: June Flowers Ext212

E-MAIL:

Requested Due Date 10 Day Standard OR

Rush Charges May Apply

Pick-Up Fee $ | Vehicle Surcharge $ | Sampling Fee $

Date Sampled

GW - ground water DW - drinking water WW - wastewater
SW - surface water S - soil/solid SL - sludge HW - waste

SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	NONE	H_2SO_4	HNO_3	HCl	$Na_2S_2O_3$	GA (High Solids)	GA	GB	Radium226	Radium226 (903.1)	Radium228	(Incl./Excl.) Uranium	Radon	COMMENTS	Total # Containers
480495 DWI	08/17	1230	DW	21.12527							✓		✓		✓	✓			3
480494 DWI	08/17	1230	DW	21.12528							✓		✓		✓	✓			3
480543 DWI	08/18	1000	DW	21.12529							✓		✓		✓				3

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
[signature]	8/18/21	1515		8/21	0955 KNL TB						

FINANCE CHARGES APPLIED TO PAST DUE INVOICES

• WHITE - Lab Copy - To Be Scanned • YELLOW - Client Copy

Florida Department of Environmental Protection
Safe Drinking Water Program Laboratory Reporting Format

PUBLIC WATER SYSTEM INFORMATION (to be completed by sampler – please type or print legibly)

System Name: Town Of Eatonville PWS I.D. # 3 4 8 0 3 2 7

System Type (check one): ☒Community ☐Nontransient Noncommunity ☐Transient Noncommunity

Address: 307 Kennedy Blvd.

City/State: Eatonville, FL Zip: 32751

Phone#: 386-623-8904 Fax#: Email Address:

SAMPLE INFORMATION (to be completed by sampler)

Sample Number: E-1 Sample Date: 12/24/18 Sample Time: 1030 (AM) PM (Circle One)

Sample Location (be specific) Plant tap Location Code:

Disinfectant Residual (Required when reporting results for trihalomethanes and haloacetic acids): mg/L Field pH:

Sample Type (Check Only One)

- ☐Distribution
- ☒Entry Point (to Distribution)
- ☐Plant Tap (not for compliance with 62-550)
- ☐Raw (at well or intake)
- ☐Max Residence Time
- ☐Ave Residence Time
- ☐Near First Customer

Reason(s) for Sample (Check all that apply)

- ☒Routine Compliance with 62-550
- ☐Confirmation of MCL Exceedance*
- ☐Composite of Multiple Sites**
- ☐Replacement (of Invalidated Sample)
- ☐Special (not for compliance with 62-550)
- ☐Clearance (permitting)
- ☐Other:

Sampling Procedure Used or Other Comments:

*See 62-550.500(6) for requirements and restrictions. And 62-550.512(3) for nitrate or nitrite exceedances.

**See 62-550.550(4) for requirements and attach a results page for each site.

SAMPLER CERTIFICATION

I, Mike Gavaletz (Print Name), Operator (Print Title), do HEREBY CERTIFY that the above public water system and sample collection information is complete and correct.

Signature: Mike G Date: 12/24/18

Certified Operator #: CS142 Phone #: 386-278-5023 Sampler's Fax #:

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

LABORATORY CERTIFICATION INFORMATION (to be completed by lab - please type or print legibly)

Lab Name: Flowers Chemical Laboratories, Inc. Florida DOH Certification #: E83018 Certification Expiration Date: 6/30/2019

ATTACH CURRENT DOH ANALYTE SHEET*

Address: P. O. Box 150597, Altamonte Springs, FL 32715-0597 Phone #: 407-339-5984

Were any analyses subcontracted? ☐ Yes ☒ No If yes, please provide DOH certification number(s): _____

ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB*

ANALYSIS INFORMATION (to be completed by lab) Date Sample(s) Received: 12/24/18

PWS ID (From Page 1): _____ Sample Number (From Page 1): 387451DW1 Lab Assigned Report # or Job ID: 387451

Group(s) analyzed and results attached for compliance with Chapter 62-550, F.A.C. (check all that apply)

Inorganics	Synthetic Organics	Volatile Organics	Disinfection Byproducts	Radionuclides	Secondaries
☐ All Except Asbestos	☐ All 30	☐ All 21	☐ Trihalomethanes	☐ Single Sample	☐ All 14
☐ Partial	☒ All Except Dioxin	☐ Partial	☐ Haloacetic Acids	☐ Qtrly Composite**	☐ Partial
☐ Nitrate	☐ Partial		☐ Chlorite		
☐ Nitrite	☐ Dioxin Only		☐ Bromate		
☐ Asbestos					

LAB CERTIFICATION

I, Jefferson S. Flowers, Technical Director, do HEREBY CERTIFY that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature:  Date: 01/09/19

* Failure to provide a valid and current Florida DOH certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report and possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

CONFIRMATION AND NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE MCL EXCEEDANCES

NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH A "U" QUALIFIER. (Non-detects reported as "BDL" or with a "<" are not acceptable.)

Compliance Determination (to be completed by DEP or DOH - attach notes as necessary)

Sample Collection & Analysis Satisfactory ☐ Yes ☐ No _____ Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

SYNTHETIC ORGANICS
62-550.310(2)(c)

Report Number / Job ID: 387451DW1
PWS ID (From Page 1): 3480327

Contai ID	Contam Name	MCL	Units	Analysis Result	Qualifier	Analytical Method	Lab MDL	RDL	Extraction Date	Analysis Date	Analysis Time	DOH Lat Cert #
2005	Endrin	2	ug/L	0.0100	U	EPA505	0.0100	0.01	12/26/18	12/26/18		E83018
2010	Lindane	0.2	ug/L	0.0100	U	EPA505	0.0100	0.02	12/26/18	12/26/18		E83018
2015	Methoxychlor	40	ug/L	0.0500	U	EPA505	0.0500	0.1	12/26/18	12/26/18		E83018
2020	Toxaphene	3	ug/L	0.500	U	EPA505	0.500	1	12/26/18	12/26/18		E83018
2031	Dalapon	200	ug/L	0.100	U	EPA515.4	0.100	1	01/03/18	01/07/19		E83018
2032	Diquat	20	ug/L	0.400	U	EPA549.2	0.400	0.4	12/24/18	01/02/19		E83018
2033	Endothall	100	ug/L	9.00	U	EPA548.1	9.00	9	12/28/18	01/07/19		E83018
2034	Glyphosate	700	ug/L	6.00	UJ	EPA547	6.00	6		01/07/19		E83018
2035	Di(2-ethylhexyl) adipate	400	ug/L	0.600	U	EPA525.2	0.600	0.6	12/31/18	01/08/19		E83018
2036	Oxamyl (Vydate)	200	ug/L	2.00	U	EPA531.1	2.00	2.0		01/02/19		E83018
2037	Simazine	4	ug/L	0.0700	U	EPA525.2	0.0700	0.07	12/31/18	01/08/19		E83018
2039	Di(2-ethylhexyl)phthalate	6	ug/L	0.600	U	EPA525.2	0.600	0.6	12/31/18	01/08/19		E83018
2040	Picloram	500	ug/L	0.100	U	EPA515.4	0.100	0.1	01/03/18	01/07/19		E83018
2041	Dinoseb	7	ug/L	0.200	U	EPA515.4	0.200	0.2	01/03/18	01/07/19		E83018
2042	Hexachlorocyclopentadiene	50	ug/L	0.100	U	EPA505	0.100	0.1	12/26/18	12/26/18		E83018
2046	Carbofuran	40	ug/L	0.900	U	EPA531.1	0.900	0.9		01/02/19		E83018
2050	Atrazine	3	ug/L	0.100	U	EPA525.2	0.100	0.1	12/31/18	01/08/19		E83018
2051	Alachlor	2	ug/L	0.200	U	EPA525.2	0.200	0.2	12/31/18	01/08/19		E83018
2065	Heptachlor	0.4	ug/L	0.0100	U	EPA505	0.0100	0.04	12/26/18	12/26/18		E83018
2067	Heptachlor epoxide	0.2	ug/L	0.0100	U	EPA505	0.0100	0.02	12/26/18	12/26/18		E83018
2105	2,4-D	70	ug/L	0.100	U	EPA515.4	0.100	0.1	01/03/18	01/07/19		E83018
2110	2,4,5-TP	50	ug/L	0.200	U	EPA515.4	0.200	0.2	01/03/18	01/07/19		E83018
2274	Hexachlorobenzene	1	ug/L	0.100	U	EPA505	0.100	0.1	12/26/18	12/26/18		E83018
2306	Benzo(a)pyrene	0.2	ug/L	0.0200	U	EPA525.2	0.0200	0.02	12/31/18	01/08/19		E83018
2326	Pentachlorophenol	1	ug/L	0.0400	U	EPA515.4	0.0400	0.04	01/03/18	01/07/19		E83018
2383	PolychlorinatedbiphenylsPCB	0.5	ug/L	0.100	U	EPA505	0.100	0.1	12/26/18	12/26/18		E83018
2931	Dibromochloropropane	0.2	ug/L	0.0200	U	EPA504.1	0.0200	0.02	12/26/18	12/27/18		E83018
2946	Ethylene Dibromide	0.02	ug/L	0.0100	U	EPA504.1	0.0100	0.01	12/26/18	12/27/18		E83018
2959	Chlordane	2	ug/L	0.0100	U	EPA505	0.0100	0.2	12/26/18	12/26/18		E83018

FLOWERS CHEMICAL LABORATORIES INCORPORATED

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☐ **Flowers Chemical Labs North**
812 S.W. Harvey Greene Dr.
Madison, FL 32340
Bus: 850-973-6878
Fax: 850-973-6878

www.flowerslabs.com

Client: Town of Eatonville
Address: 307 E. Kennedy Blvd
Eatonville, Fla 32751
Phone: 386 279-5023
Sampled By (PRINT): Mike Gavalett
Sampler Signature: Mike G
Date Sampled: 12/24/18

Public Water System Name:
PWS ID# 3480327
P.O. #:
FCL Lab Coordinator:
Kit #:

Public Water System Type: ☐ Limited Use Commercial / Public ☒ Community ☐ Non-Community ☐ Non-transient / Non-Community

COMMENTS

DRINKING WATER - Chain of Custody F.A.C. 62 - 550

ITEM NO.	SAMPLE DESCRIPTION	DATE	TIME	LAB NO.	NUMBER	PRESERVATIVES: NONE	NaOH	HNO_3	HCl	$Na_2S_2O_3$	Primary Inorg.	Secondaries	VOCs	SOCs	NO_2 / NO_3	TTHM	THAA	Pb/Cu	GA / RA228	RA226	Asbestos				Field pH	Field Cl_2 Res
E 1	Plant tap	12/24/18	1030		10									X												
2				387451 DW																						
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Mike G	12/24/18	1057							C LaRosa	12/24/18	11:01

• **WHITE** - Ship with Samples / To Be Returned with Results

• **YELLOW** - Field Copy / Retain For Your Records

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Town of Eatonville
P.O. Box 2163
Eatonville,FL 32751

PO #: Revised 2/6/19
Client Project #: 3480327
Date Sampled: Dec 24, 2018
Jan 9, 2019; Invoice: 387451

Report Summary

Date Received: Dec 24, 2018 FCL Project Manager: Robert J. Carpenter

Laboratory #	Sample Description	Analysis	Chemist	Location	SampleMatrix
387451DW1	Plant Tap	EPA504.1	DLJ	Main Lab	Drinking Water
		EPA505	DLJ	Main Lab	
		EPA515.4	DLJ	Main Lab	
		EPA525.2	CLS	Main Lab	
		EPA531.1	YGS	Main Lab	
		EPA547	YGS	Main Lab	
		EPA548.1	CLS	Main Lab	
		EPA549.2	YGS	Main Lab	
		X504	DLJ	Main Lab	
		X505	DLJ	Main Lab	
		X515.4	TGL	Main Lab	
		X525	JAF	Main Lab	
		X548	TGL	Main Lab	
		X549.2	TGL	Main Lab	

Certificate of Results
Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.

NELAP ACCREDITED TNI LABORATORY

Jefferson S. Flowers, Ph.D.
President/Technical Director

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PO #: Revised 2/6/19
Client Project #: 3480327
Date Sampled: Dec 24, 2018
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Analysis Report

Lab #: 387451DW1 **Sampled:** 12/24/18 10:30 AM **Desc:** Plant Tap

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Brom_Insect_Extraction	35.0	ml	1.00			10391962	X504		12/26/18
Chlor_Pest_Extraction	35.0	ml	1.00			10391963	X505		12/26/18
Chlordane	0.0100 U	ug/L	1.00	0.0100	0.0200	10392034	EPA505	57-74-9	12/26/18
Endrin	0.0100 U	ug/L	1.00	0.0100	0.0200	10392034	EPA505	72-20-8	12/26/18
Heptachlor	0.0100 U	ug/L	1.00	0.0100	0.0200	10392034	EPA505	76-44-8	12/26/18
Heptachlor epoxide	0.0100 U	ug/L	1.00	0.0100	0.0200	10392034	EPA505	1024-57-3	12/26/18
Hexachlorobenzene	0.100 U	ug/L	1.00	0.100	0.200	10392034	EPA505	118-74-1	12/26/18
Hexachlorocyclopentadiene	0.100 U	ug/L	1.00	0.100	0.200	10392034	EPA505	77-47-4	12/26/18
Lindane (g-BHC)	0.0100 U	ug/L	1.00	0.0100	0.0200	10392034	EPA505	58-89-9	12/26/18
Methoxychlor	0.0500 U	ug/L	1.00	0.0500	0.100	10392034	EPA505	72-43-5	12/26/18
Total Arochlors	0.100 U	ug/L	1.00	0.100	0.200	10392034	EPA505	1336-36-3	12/26/18
Toxaphene	0.500 U	ug/L	1.00	0.500	1.00	10392034	EPA505	8001-35-2	12/26/18
1,2-Dibromoethane (EDB)	0.0100 U	ug/L	1.00	0.0100	0.0200	10392095	EPA504.1	106-93-4	12/27/18
1,2-dibromo-3-chloropropane	0.0200 U	ug/L	1.00	0.0200	0.0400	10392095	EPA504.1	96-12-8	12/27/18
Diquat_Extraction	100	ml	1.00			10392099	X549.2		12/24/18
Endothall_Extraction	100	ml	1.00			10392255	X548		12/28/18
Acid Base Extraction	1050	ml	1.00			10392393	X525		12/31/18
Carbofuran	0.900 U	ug/L	1.00	0.900	4.00	10392458	EPA531.1	1563-66-2	01/02/19
Oxamyl (Vydate)	2.00 U	ug/L	1.00	2.00	4.00	10392458	EPA531.1	23135-22-0	01/02/19
Diquat	0.400 U	ug/L	1.00	0.400	0.800	10392466	EPA549.2	85-00-7	01/02/19
Chlor_Herb_Extraction	40.0	ml	1.00			10392673	X515.4		01/03/18
Endothall	9.00 U	ug/L	1.00	9.00	18.0	10392749	EPA548.1	145-73-3	01/07/19
Glyphosate	6.00 UJ	ug/L	1.00	6.00	10.0	10392799	EPA547	1071-83-6	01/07/19
2,4,5-TP (Silvex)	0.200 U	ug/L	1.00	0.200	0.500	10392820	EPA515.4	93-72-1	01/07/19
2,4-D	0.100 U	ug/L	1.00	0.100	0.500	10392820	EPA515.4	94-75-7	01/07/19
Dalapon	0.100 U	ug/L	1.00	0.100	0.500	10392820	EPA515.4	75-99-0	01/07/19
Dinoseb	0.200 U	ug/L	1.00	0.200	0.500	10392820	EPA515.4	88-85-7	01/07/19

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Town of Eatonville
P.O. Box 2163
Eatonville,FL 32751

PO #: Revised 2/6/19
Client Project #: 3480327
Date Sampled: Dec 24, 2018
Jan 9, 2019; Invoice: 387451

Lab #: 387451DW1 **Sampled:** 12/24/18 10:30 AM **Desc:** Plant Tap

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Pentachlorophenol	0.0400 U	ug/L	1.00	0.0400	0.100	10392820	EPA515.4	87-86-5	01/07/19
Picloram	0.100 U	ug/L	1.00	0.100	0.200	10392820	EPA515.4	1918-02-1	01/07/19
Alachlor (Lasso)	0.200 U	ug/L	1.00	0.200	0.400	10392869	EPA525.2	15972-60-8	01/08/19
Atrazine	0.100 U	ug/L	1.00	0.100	0.200	10392869	EPA525.2	1912-24-9	01/08/19
Benzo(a)pyrene	0.0200 U	ug/L	1.00	0.0200	0.100	10392869	EPA525.2	50-32-8	01/08/19
Bis(2-ethylhexyl)phthalate	0.600 U	ug/L	1.00	0.600	1.20	10392869	EPA525.2	117-81-7	01/08/19
Di(2-ethylhexyl) adipate	0.600 U	ug/L	1.00	0.600	1.20	10392869	EPA525.2	103-23-1	01/08/19
Simazine	0.0700 U	ug/L	1.00	0.0700	0.140	10392869	EPA525.2	122-34-9	01/08/19

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PO #: Revised 2/6/19
Client Project #: 3480327
Date Sampled: Dec 24, 2018
Jan 9, 2019; Invoice: 387451

Quality Report

Quality Control Batch: 10392034 **Analyst:** DLJ

Blank	**Result**	**Units**
Chlordane	0.0100U	ug/L
Endrin	0.0100U	ug/L
Heptachlor	0.0100U	ug/L
Heptachlor epoxide	0.0100U	ug/L
Hexachlorobenzene	0.100U	ug/L
Hexachlorocyclopentadiene	0.100U	ug/L
Lindane (g-BHC)	0.0100U	ug/L
Methoxychlor	0.0500U	ug/L
Total Arochlors	0.100U	ug/L
Toxaphene	0.500U	ug/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Endrin	0.155	ug/L	0.200	77.30	50.00-170.00
Heptachlor	0.166	ug/L	0.200	83.10	50.00-170.00
Heptachlor epoxide	0.165	ug/L	0.200	82.50	50.00-170.00
Hexachlorobenzene	0.188	ug/L	0.200	94.20	50.00-170.00
Hexachlorocyclopentadiene	0.171	ug/L	0.200	85.45	20.00-160.00
Lindane (g-BHC)	0.146	ug/L	0.200	73.15	50.00-170.00
Methoxychlor	0.162	ug/L	0.200	81.20	50.00-170.00

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**Lab Number**
Endrin	0.177	ug/L	0.200	88.35	50.00-170.00	0.0100U	387302DW1
Heptachlor	0.186	ug/L	0.200	92.90	50.00-170.00	0.0100U	387302DW1
Heptachlor epoxide	0.184	ug/L	0.200	91.80	50.00-170.00	0.0100U	387302DW1
Hexachlorobenzene	0.208	ug/L	0.200	103.80	50.00-170.00	0.100U	387302DW1

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P.O. Box 2163
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PO #: Revised 2/6/19
Client Project #: 3480327
Date Sampled: Dec 24, 2018
Jan 9, 2019; Invoice: 387451

Quality Control Batch: 10392034 **Analyst:** DLJ

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**Lab Number**
Hexachlorocyclopentadiene	0.187	ug/L	0.200	93.25	20.00-160.00	0.100U	387302DW1
Lindane (g-BHC)	0.179	ug/L	0.200	89.65	50.00-170.00	0.0100U	387302DW1
Methoxychlor	0.185	ug/L	0.200	92.45	50.00-170.00	0.0500U	387302DW1

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Endrin	0.168	ug/L	0.200	84.15	50.00-170.00	0.0100U	4.87	30.00
Heptachlor	0.179	ug/L	0.200	89.50	50.00-170.00	0.0100U	3.73	30.00
Heptachlor epoxide	0.177	ug/L	0.200	88.40	50.00-170.00	0.0100U	3.77	30.00
Hexachlorobenzene	0.200	ug/L	0.200	100.20	50.00-170.00	0.100U	3.53	30.00
Hexachlorocyclopentadiene	0.184	ug/L	0.200	91.75	20.00-160.00	0.100U	1.62	30.00
Lindane (g-BHC)	0.169	ug/L	0.200	84.25	50.00-170.00	0.0100U	6.21	30.00
Methoxychlor	0.178	ug/L	0.200	88.75	50.00-170.00	0.0500U	4.08	30.00

Quality Control Batch: 10392095 **Analyst:** DLJ

Blank	**Result**	**Units**
1,2-Dibromoethane (EDB)	0.0100U	ug/L
1,2-dibromo-3-chloropropane	0.0200U	ug/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
1,2-Dibromoethane (EDB)	0.266	ug/L	0.251	105.81	50.00-170.00
1,2-dibromo-3-chloropropane	0.243	ug/L	0.251	96.70	50.00-170.00

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**Lab Number**
1,2-Dibromoethane (EDB)	0.314	ug/L	0.251	124.86	50.00-170.00	0.0100U	387303DW1
1,2-dibromo-3-chloropropane	0.235	ug/L	0.251	93.60	50.00-170.00	0.0200U	387303DW1

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
1,2-Dibromoethane (EDB)	0.304	ug/L	0.251	120.76	50.00-170.00	0.0100U	3.34	30.00
1,2-dibromo-3-chloropropane	0.231	ug/L	0.251	91.81	50.00-170.00	0.0200U	1.93	30.00

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Quality Control Batch: 10392458 **Analyst:** YGS

Blank	**Result**	**Units**
Carbofuran	0.900U	ug/L
Oxamyl (Vydate)	2.00U	ug/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Carbofuran	26.3	ug/L	25.0	105.13	80.00-120.00
Oxamyl (Vydate)	24.7	ug/L	25.0	98.96	80.00-120.00

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**Lab Number**
Carbofuran	25.0	ug/L	25.0	99.97	80.00-120.00	0.900U	386801DW1
Oxamyl (Vydate)	24.6	ug/L	25.0	98.25	80.00-120.00	2.00U	386801DW1

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Carbofuran	24.5	ug/L	25.0	97.87	80.00-120.00	0.900U	2.12	20.00
Oxamyl (Vydate)	24.5	ug/L	25.0	98.18	80.00-120.00	2.00U	0.07	20.00

Quality Control Batch: 10392466 **Analyst:** YGS

Blank	**Result**	**Units**
Diquat	0.400U	ug/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Diquat	5.37	ug/L	5.00	107.41	50.00-170.00

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**Lab Number**
Diquat	4.53	ug/L	5.00	90.64	50.00-170.00	0.400U	387756DW1

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Quality Control Batch: 10392749 **Analyst:** CLS

Blank	**Result**	**Units**
Endothall	9.00U	ug/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Endothall	86.0	ug/L	100	86.00	50.00-170.00

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**Lab Number**
Endothall	75.3	ug/L	100	75.32	50.00-170.00	9.00U	387357WW1

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Endothall	93.9	ug/L	100	93.93	50.00-170.00	9.00U	21.99	30.00

Quality Control Batch: 10392799 **Analyst:** YGS

Blank	**Result**	**Units**
Glyphosate	6.00U	ug/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Glyphosate	45.8	ug/L	50.0	91.65	80.00-120.00

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**Lab Number**
Glyphosate	37.0	ug/L	50.0	73.98	80.00-120.00	6.00U	387451DW1

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Glyphosate	34.4	ug/L	50.0	68.71	80.00-120.00	6.00U	7.40	20.00

Quality Control Batch: 10392869 **Analyst:** CLS

Blank	**Result**	**Units**
Alachlor (Lasso)	0.200U	ug/L
Atrazine	0.100U	ug/L

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Quality Control Batch: 10392869 **Analyst:** CLS

Blank	**Result**	**Units**
Benzo(a)pyrene	0.0200U	ug/L
Bis(2-ethylhexyl)phthalate	0.600U	ug/L
Di(2-ethylhexyl) adipate	0.600U	ug/L
Simazine	0.0700U	ug/L

Laboratory Control Sample	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**
Alachlor (Lasso)	1.97	ug/L	2.00	98.50	80.00-120.00
Atrazine	1.89	ug/L	2.00	94.50	80.00-120.00
Benzo(a)pyrene	0.650	ug/L	1.00	65.00	35.00-150.00
Bis(2-ethylhexyl)phthalate	10.3	ug/L	10.0	103.10	80.00-120.00
Di(2-ethylhexyl) adipate	8.97	ug/L	10.0	89.70	50.00-150.00
Simazine	1.96	ug/L	2.00	98.00	80.00-120.00

Matrix Spike	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**Lab Number**
Alachlor (Lasso)	1.67	ug/L	2.00	83.50	70.00-130.00	0.200U	387302DW1
Atrazine	1.04	ug/L	2.00	52.00	70.00-130.00	0.100U	387302DW1
Benzo(a)pyrene	0.920	ug/L	1.00	92.00	35.00-150.00	0.0200U	387302DW1
Bis(2-ethylhexyl)phthalate	9.75	ug/L	10.0	97.50	80.00-120.00	0.600U	387302DW1
Di(2-ethylhexyl) adipate	10.2	ug/L	10.0	102.00	50.00-150.00	0.600U	387302DW1
Simazine	1.11	ug/L	2.00	55.50	70.00-130.00	0.0700U	387302DW1

Matrix Spike Duplicate	**Result**	**Units**	**Spike**	**%REC**	**%REC Lim**	**Sample**	**RPD**	**RPD Lim**
Alachlor (Lasso)	1.96	ug/L	2.00	98.00	70.00-130.00	0.200U	15.98	20.00
Atrazine	1.24	ug/L	2.00	62.00	70.00-130.00	0.100U	17.54	20.00
Benzo(a)pyrene	0.900	ug/L	1.00	90.00	35.00-150.00	0.0200U	2.20	30.00
Bis(2-ethylhexyl)phthalate	9.86	ug/L	10.0	98.60	80.00-120.00	0.600U	1.12	20.00
Di(2-ethylhexyl) adipate	10.5	ug/L	10.0	104.80	50.00-150.00	0.600U	2.71	30.00
Simazine	1.35	ug/L	2.00	67.50	70.00-130.00	0.0700U	19.51	20.00

FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs, FL 32715-0597 Phone: 407-339-5984 E83018 (Main Lab)
571 NW Mercantile Pl, Suite 111, Port St. Lucie, FL 34986 Phone: 772-343-8006 E86562 (South Lab)
812 SW Harvey Green Dr, Madison, FL 32340 Phone: 850-973-6878 E82405 (North Lab)
3980 Overseas Hwy, Suite 103, Marathon, FL 33050 Phone: 305-743-8598 E35834 (Keys Lab)

Town of Eatonville
P.O. Box 2163
Eatonville,FL 32751

PO #: Revised 2/6/19
Client Project #: 3480327
Date Sampled: Dec 24, 2018
Jan 9, 2019; Invoice: 387451

Narrative Report

Sample Handling
Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted.

Quality Control
Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments
Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	Estimated value; one or more QC components associated with this data value exceed current QC limits.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
W	The dissolved oxygen blank was above 0.2 mg/L but less than the MDL.
Z	Too numerous to count colonies on plate.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Florida Department of Environmental Protection
Safe Drinking Water Program Laboratory Reporting Format

PUBLIC WATER SYSTEM INFORMATION (to be completed by sampler – please type or print legibly)

System Name: Town of Eatonville PWS I.D. # 3 4 8 0 3 2 7

System Type (check one): ☒Community ☐Non-transient Non-community ☐Transient Non-community

Address: 307 E. Kennedy Blvd

City/State: Eatonville, FL Zip: 32751

Phone#: _____ Fax#: _____ Email Address: _____

SAMPLE INFORMATION (to be completed by sampler)

Sample Number: 1 Sample Date: 9/21/15 Sample Time: 1230 AM PM (Circle One)

Sample Location (be specific) Plant Tap Location Code: _____

Disinfectant Residual (Required when reporting results for trihalomethanes and haloacetic acids): _____ mg/L Field pH: _____

Sample Type (Check Only One)

- ☐Distribution
- ☒Entry Point (to Distribution)
- ☐Plant Tap (not for compliance with 62-550)
- ☐Raw (at well or intake)
- ☐Max Residence Time
- ☐Ave Residence Time
- ☐Near First Customer

Reason(s) for Sample (Check all that apply)

- ☒Routine Compliance with 62-550
- ☐Confirmation of MCL Exceedance*
- ☐Composite of Multiple Sites**
- ☐Replacement (of Invalidated Sample)
- ☐Special (not for compliance with 62-550)
- ☐Clearance (permitting)
- ☐Other: _____

Sampling Procedure Used or Other Comments:

_____

*See 62-550.500(6) for requirements and restrictions. And 62-550.512(3) for nitrate or nitrite exceedances.

**See 62-550.550(4) for requirements and attach a results page for each site.

SAMPLER CERTIFICATION

I, Mike Gavaletz (Print Name), operator (Print Title), do HEREBY CERTIFY that the above public water system and sample collection information is complete and correct.

Signature: Mike Gavaletz Date: 9/21/15

Certified Operator #: C5642 Phone #: 386-279-5023 Sampler's Fax #: _____

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

LABORATORY CERTIFICATION INFORMATION (to be completed by lab - please type or print legibly)

Lab Name: Flowers Chemical Laboratories, Inc. Florida DOH Certification #: E83018 Certification Expiration Date: 6/30/2016

ATTACH CURRENT DOH ANALYTE SHEET*

Address: P. O. Box 150597, Altamonte Springs, FL 32715-0597 Phone #: 407-339-5984

Were any analyses subcontracted? ☐ Yes ☒ No If yes, please provide DOH certification number(s): _____

ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB*

ANALYSIS INFORMATION(to be completed by lab) Date Sample(s) Received: 09/21/15

PWS ID (From Page 1): 3480327 Sample Number (From Page 1): 277445DW1 Lab Assigned Report # or Job ID: 277445

Group(s) analyzed and results attached for compliance with Chapter 62-550, F.A.C. (check all that apply)

Inorganics	Synthetic Organics	Volatile Organics	Disinfection Byproducts	Radionuclides	Secondaries
☒ All Except Asbestos	☒ All 30	☒ All 21	☐ Trihalomethanes	☐ Single Sample	☒ All 14
☐ Partial	☐ All Except Dioxin	☐ Partial	☐ Haloacetic Acids	☐ Qtrly Composite**	☐ Partial
☐ Nitrate	☐ Partial		☐ Chlorite		
☐ Nitrite	☐ Dioxin Only		☐ Bromate		
☐ Asbestos					

LAB CERTIFICATION

I, Jefferson S. Flowers, Technical Director, do HEREBY CERTIFY that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature:  Date: 10/01/15

* Failure to provide a valid and current Florida DOH certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report and possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

CONFIRMATION AND NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE MCL EXCEEDANCES

NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH A "U" QUALIFIER. (Non-detects reported as "BDL" or with a "<" are not acceptable.)

Compliance Determination (to be completed by DEP or DOH - attach notes as necessary)

Sample Collection & Analysis Satisfactory ☐ Yes ☐ No _____ Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

INORGANIC CONTAMINANTS
62-550.310(1)

Report Number / Job ID: 277445DW1
PWS ID (From Page 1): 3480327

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier	Analytical Method	Lab MDL	Analysis Date	Analysis Time	DOH Lab Cert #
1040	Nitrate (as N)	10	mg/L	0.200	U	EPA300.0	0.200	09/22/15	12:30 PM	E83018
1041	Nitrite (as N)	1	mg/L	0.200	U	EPA300.0	0.200	09/22/15	12:30 PM	E83018
1005	Arsenic	0.010	mg/L	0.00100	U	EPA200.8	0.00100	09/23/15		E83018
1010	Barium	2	mg/L	0.00200	U	EPA200.8	0.00200	09/23/15		E83018
1015	Cadmium	0.005	mg/L	0.00100	U	EPA200.8	0.00100	09/23/15		E83018
1020	Chromium	0.1	mg/L	0.00100	U	EPA200.8	0.00100	09/23/15		E83018
1024	Cyanide	0.2	mg/L	0.00500	U	SM4500CN-E	0.00500	09/24/15		E83018
1025	Fluoride	4.0	mg/L	0.237		EPA300.0	0.200	09/22/15		E83018
1030	Lead	0.015	mg/L	0.00100	U	EPA200.8	0.00100	09/23/15		E83018
1035	Mercury	0.002	mg/L	0.0000200	U	EPA245.1	0.0000200	09/28/15		E83018
1036	Nickel	0.1	mg/L	0.00190		EPA200.8	0.00100	09/23/15		E83018
1045	Selenium	0.05	mg/L	0.00200	U	EPA200.8	0.00200	09/23/15		E83018
1052	Sodium	160	mg/L	20.2		EPA200.7	0.500	09/21/15		E83018
1074	Antimony	0.006	mg/L	0.00100	U	EPA200.8	0.00100	09/23/15		E83018
1075	Beryllium	0.004	mg/L	0.000500	U	EPA200.8	0.000500	09/23/15		E83018
1085	Thallium	0.002	mg/L	0.00100	U	EPA200.8	0.00100	09/23/15		E83018

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

SECONDARY CONTAMINANTS
62-550.320

Report Number / Job ID: 277445DW1
PWS ID (From Page 1): 3480327

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier	Analytical Method	Lab MDL	Analysis Date	Analysis Time	DOH Lab Cert #
1002	Aluminum	0.2	mg/L	0.0200	U	EPA200.8	0.0200	09/23/15		E83018
1017	Chloride	250	mg/L	32.7		EPA300.0	0.400	09/22/15		E83018
1022	Copper	1	mg/L	0.00100	U	EPA200.8	0.00100	09/23/15		E83018
1025	Fluoride	4.0	mg/L	0.237		EPA300.0	0.200	09/22/15		E83018
1028	Iron	0.3	mg/L	0.0100	U	EPA200.7	0.0100	09/21/15		E83018
1032	Manganese	0.05	mg/L	0.0100	U	EPA200.7	0.0100	09/21/15		E83018
1050	Silver	0.1	mg/L	0.000500	U	EPA200.8	0.000500	09/23/15		E83018
1055	Sulfate	250	mg/L	5.92		EPA300.0	1.00	09/22/15		E83018
1095	Zinc	5	mg/L	0.0100	U	EPA200.8	0.0100	09/23/15		E83018
1905	Color	15	CU	5.00		SM2120 B	5.00	09/22/15	08:00 AM	E83018
1920	Odor	3	TON@40C	1.00	U	SM2150 B	1.00	09/22/15	08:00 AM	E83018
1925	pH	6.5 -8.5	pH	8.39		SM4500-H B	0.0100	09/22/15	10:34 AM	E83018
1930	Total Dissolved Solids	500	mg/L	222		SM2540 C	2.50	09/22/15		E83018
2905	Foaming Agents	0.5	mg/L	0.200	U	SM5540 C	0.200	09/22/15	10:00 AM	E83018

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

VOLATILE ORGANICS
62-550.310(2)(b)

Report Number / Job ID: 277445DW1
PWS ID (From Page 1): 3480327

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier	Analytical Method	Lab MDL	RDL	Analysis Date	Analysis Time	DOH Lab Cert #
2378	1,2,4,-trichlorobenzene	70	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2380	cis-1,2-Dichloroethylene	70	ug/L	0.200	U	EPA524.2	0.200	0.5	09/24/15		E83018
2955	Xylenes	10000	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2964	Dichloromethane	5	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2968	o-dichlorobenzene	600	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2969	Para-dichlorobenzene	75	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2976	Vinyl Chloride	1	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2977	1,1-Dichloroethylene	7	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2979	trans-1,2-Dichloroethylene	100	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2980	1,2-Dichloroethane	3	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2981	1,1,1-trichloroethane	200	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2982	Carbon tetrachloride	3	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2983	1,2-dichloropropane	5	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2984	Trichloroethylene	3	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2985	1,1,2-trichloroethane	5	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2987	Tetrachloroethylene	3	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2989	Monochlorobenzene	100	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2990	Benzene	1	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2991	Toluene	1000	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2992	Ethylbenzene	700	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018
2996	Styrene	100	ug/L	0.500	U	EPA524.2	0.500	0.5	09/24/15		E83018

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

SYNTHETIC ORGANICS
62-550.310(2)(c)

Report Number / Job ID: 277445DW1
PWS ID (From Page 1): 3480327

Contaı ID	Contam Name	MCL	Units	Analysis Result	Qualifier	Analytical Method	Lab MDL	RDL	Extraction Date	Analysis Date	Analysis Time	DOH Lat Cert #
2005	Endrin	2	ug/L	0.0100	U	EPA505	0.0100	0.01	09/22/15	09/22/15		E83018
2010	Lindane	0.2	ug/L	0.0100	U	EPA505	0.0100	0.02	09/22/15	09/22/15		E83018
2015	Methoxychlor	40	ug/L	0.0500	U	EPA505	0.0500	0.1	09/22/15	09/22/15		E83018
2020	Toxaphene	3	ug/L	0.500	U	EPA505	0.500	1	09/22/15	09/22/15		E83018
2031	Dalapon	200	ug/L	0.100	U	EPA515.4	0.100	1	09/24/15	09/28/15		E83018
2032	Diquat	20	ug/L	0.400	U	EPA549.2	0.400	0.4	09/23/15	09/24/15		E83018
2033	Endothall	100	ug/L	9.00	U	EPA548.1	9.00	9	09/22/15	09/25/15		E83018
2034	Glyphosate	700	ug/L	6.00	U	EPA547	6.00	6		09/23/15		E83018
2035	Di(2-ethylhexyl) adipate	400	ug/L	0.600	U	EPA525.2	0.600	0.6	09/23/15	09/24/15		E83018
2036	Oxamyl (Vydate)	200	ug/L	2.00	U	EPA531.1	2.00	2.0		09/30/15		E83018
2037	Simazine	4	ug/L	0.0700	U	EPA507	0.0700	0.07	09/22/15	09/28/15		E83018
2039	Di(2-ethylhexyl)phthalate	6	ug/L	0.600	U	EPA525.2	0.600	0.6	09/23/15	09/24/15		E83018
2040	Picloram	500	ug/L	0.100	U	EPA515.4	0.100	0.1	09/24/15	09/28/15		E83018
2041	Dinoseb	7	ug/L	0.200	U	EPA515.4	0.200	0.2	09/24/15	09/28/15		E83018
2042	Hexachlorocyclopentadiene	50	ug/L	0.100	U	EPA505	0.100	0.1	09/22/15	09/22/15		E83018
2046	Carbofuran	40	ug/L	0.900	U	EPA531.1	0.900	0.9		09/30/15		E83018
2050	Atrazine	3	ug/L	0.100	U	EPA507	0.100	0.1	09/22/15	09/28/15		E83018
2051	Alachlor	2	ug/L	0.200	U	EPA507	0.200	0.2	09/22/15	09/28/15		E83018
2065	Heptachlor	0.4	ug/L	0.0100	U	EPA505	0.0100	0.04	09/22/15	09/22/15		E83018
2067	Heptachlor epoxide	0.2	ug/L	0.0100	U	EPA505	0.0100	0.02	09/22/15	09/22/15		E83018
2105	2,4-D	70	ug/L	0.100	U	EPA515.4	0.100	0.1	09/24/15	09/28/15		E83018
2110	2,4,5-TP	50	ug/L	0.200	U	EPA515.4	0.200	0.2	09/24/15	09/28/15		E83018
2274	Hexachlorobenzene	1	ug/L	0.100	U	EPA505	0.100	0.1	09/22/15	09/22/15		E83018
2306	Benzo(a)pyrene	0.2	ug/L	0.0200	U	EPA525.2	0.0200	0.02	09/23/15	09/24/15		E83018
2326	Pentachlorophenol	1	ug/L	0.0400	U	EPA515.4	0.0400	0.04	09/24/15	09/28/15		E83018
2383	PolychlorinatedbiphenylsPCB	0.5	ug/L	0.100	U	EPA505	0.100	0.1	09/22/15	09/22/15		E83018
2931	Dibromochloropropane	0.2	ug/L	0.0200	U	EPA504.1	0.0200	0.02	09/22/15	09/22/15		E83018
2946	Ethylene Dibromide	0.02	ug/L	0.0100	U	EPA504.1	0.0100	0.01	09/22/15	09/22/15		E83018
2959	Chlordane	2	ug/L	0.0100	U	EPA505	0.0100	0.2	09/22/15	09/22/15		E83018

FLOWERS CHEMICAL LABORATORIES INCORPORATED

☐ **Flowers Chemical Laboratories, Inc.**
481 Newburyport Ave.
Altamonte Springs, FL 32701
Bus: 407-339-5984
Fax: 407-260-6110

☐ **Flowers Chemical Labs-South**
West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
Port St. Lucie, FL 34986
Bus: 772-343-8006
Fax: 772-343-8089

☐ **Flowers Chemical Labs-North**
812 S.W. Harvey Greene Dr.
Madison, FL 32340
Bus: 850-973-6878
Fax: 850-973-6878

☐ **Flowers Chemical Labs-Keys**
3980 Overseas Highway
Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8598

www.flowerslabs.com

Client: Town of Eatonville

Public Water System Name: Town of Eatonville

Address: 307 Kennedy Blvd
Eatonville, Fla 32751

PWS ID#: 3480327

P.O. #:

FCL Lab Coordinator:

Kit #:

Phone:

Public Water System Type: ☐ Limited Use Commercial / Public ☒ Community ☐ Non-Community ☐ Non-transient / Non-Community

COMMENTS

Sampled By (PRINT): Mike Gavaletz

Sampler Signature: Mike Davis

Date Sampled: 9/21/15

DRINKING WATER - Chain of Custody F.A.C. 62 - 550

ITEM NO.	SAMPLE DESCRIPTION	DATE	TIME	LAB NO.	NUMBER	PRESERVATIVES: NONE	NaOH	HNO_3	HCl	$Na_2S_2O_3$	Primary Inorg.	Secondaries	VOCs	SOCs	NO_2 / NO_3	TTHM	THAA	Pb/Cu	GA / RA228	RA226 Asbestos			Field pH	Field Cl_2 Res
1	E-1 - Plant tap	9/21/15	1230	↓	18						X	X	X	X									7.10	1.40
2				277445	Dw1																			
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Mike Davis	9/21/15	1312									
										9/21/15	1313

• **WHITE** - Ship with Samples / To Be Returned with Results • **YELLOW** - Field Copy / Retain For Your Records

PDW 02-04

ENTERED

Florida Department of Environmental Protection
Safe Drinking Water Program Laboratory Reporting Format

PUBLIC WATER SYSTEM INFORMATION (to be completed by sampler – please type or print legibly)

System Name: Town of Eatonville PWS I.D. # 3 4 8 0 3 2 7

System Type (check one): ☒Community ☐Non-transient Non-community ☐Transient Non-community

2012 – Inorg SOC VOC RADS

Address: 307 E. Kennedy Blvd

City/State: Eatonville, FL Zip: 32751

Phone#: _____ Fax#: _____ Email Address: _____

SAMPLE INFORMATION (to be completed by sampler)

Sample Number: 179363DW1 Sample Date: 7/2/12 Sample Time: 1115 (AM) PM (Circle One)

Sample Location (be specific) Plant Tap / POE Location Code: _____

Disinfectant Residual (Required when reporting results for trihalomethanes and haloacetic acids): _____ mg/L Field pH: _____

Sample Type (Check Only One)

- ☐Distribution
- ☒Entry Point (to Distribution)
- ☐Plant Tap (not for compliance with 62-550)
- ☐Raw (at well or intake)
- ☐Max Residence Time
- ☐Ave Residence Time
- ☐Near First Customer

Reason(s) for Sample (Check all that apply)

- ☐Routine Compliance with 62-550
- ☐Confirmation of MCL Exceedance*
- ☐Composite of Multiple Sites**
- ☐Other: _____
- ☐Replacement (of Invalidated Sample)
- ☐Special (not for compliance with 62-550)
- ☐Clearance (permitting)

Sampling Procedure Used or Other Comments: _____

*See 62-550.500(6) for requirements and restrictions. And 62-550.512(3) for nitrate or nitrite exceedances.

**See 62-550.550(4) for requirements and attach a results page for each site.

SAMPLER CERTIFICATION

I, C Toland (Print Name), Operator (Print Title), do HEREBY CERTIFY that the above public water system and sample collection information is complete and correct.

RECEIVED AUG 09 2012 DEP Central Dist.

Signature: _____ Date: 7/2/12

Certified Operator #: C 13475 Phone #: 8045201 Sampler's Fax #: _____

Reporting Format 62-550.730
Effective January 1995, Revised February 2010

SOC Revision rcvd 8-27-12

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

LABORATORY CERTIFICATION INFORMATION (to be completed by lab - please type or print legibly)

Lab Name: Flowers Chemical Laboratories, Inc. Florida DOH Certification #: E83018 Certification Expiration Date: 6/30/2013

ATTACH CURRENT DOH ANALYTE SHEET*

Address: P. O. Box 150597, Altamonte Springs, FL 32715-0597 Phone #: 407-339-5984

Were any analyses subcontracted? ☐Yes ☐No If yes, please provide DOH certification number(s): _____

ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB*

ANALYSIS INFORMATION(to be completed by lab) Date Sample(s) Received: 07/02/12

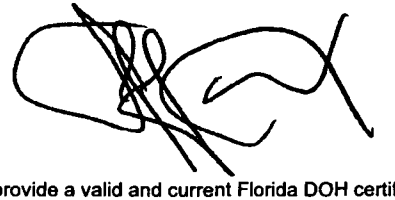
PWS ID (From Page 1): 3480322 Sample Number (From Page 1): 179363DW1 Lab Assigned Report # or Job ID: 179363

Group(s) analyzed and results attached for compliance with Chapter 62-550, F.A.C. (check all that apply)

Inorganics	Synthetic Organics	Volatile Organics	Disinfection Byproducts	Radionuclides	Secondaries
☐All Except Asbestos	☐All 30	☐All 21	☐Trihalomethanes	☐Single Sample	☐All 14
☐Partial	☐All Except Dioxin	☐Partial	☐Haloacetic Acids	☐Qtrly Composite**	☐Partial
☐Nitrate	☐Partial		☐Chlorite		
☐Nitrite	☐Dioxin Only		☐Bromate		
☐Asbestos					

LAB CERTIFICATION

I, Jefferson S. Flowers, Technical Director, do HEREBY CERTIFY that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature:  Date: 07/24/12

RECEIVED
AUG 09 2012
DEP Central Dist

* Failure to provide a valid and current Florida DOH certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report and possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

CONFIRMATION AND NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE MCL EXCEEDANCES

NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH A "U" QUALIFIER. (Non-detects reported as "BDL" or with a "<" are not acceptable.)

Compliance Determination (to be completed by DEP or DOH - attach notes as necessary)

Sample Collection & Analysis Satisfactory ☐Yes ☐No _____ Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

LABORATORY CERTIFICATION INFORMATION (to be completed by lab - please type or print legibly)

Lab Name: Flowers Chemical Laboratories, Inc. Florida DOH Certification #: E83018 Certification Expiration Date: 6/30/2013

ATTACH CURRENT DOH ANALYTE SHEET*

Address: P. O. Box 150597, Altamonte Springs, FL 32715-0597 Phone #: 407-339-5984

Were any analyses subcontracted? ☐Yes ☐No If yes, please provide DOH certification number(s): _____

ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB*

ANALYSIS INFORMATION(to be completed by lab) Date Sample(s) Received: 07/02/12

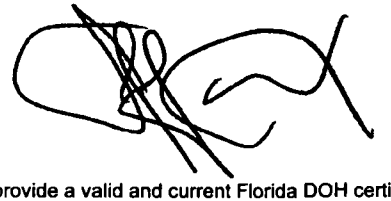
PWS ID (From Page 1): 3480322 Sample Number (From Page 1): 179363DW1 Lab Assigned Report # or Job ID: 179363

Group(s) analyzed and results attached for compliance with Chapter 62-550, F.A.C. (check all that apply)

Inorganics	Synthetic Organics	Volatile Organics	Disinfection Byproducts	Radionuclides	Secondaries
☐All Except Asbestos	☐All 30	☐All 21	☐Trihalomethanes	☐Single Sample	☐All 14
☐Partial	☐All Except Dioxin	☐Partial	☐Haloacetic Acids	☐Qtrly Composite**	☐Partial
☐Nitrate	☐Partial		☐Chlorite		
☐Nitrite	☐Dioxin Only		☐Bromate		
☐Asbestos					

LAB CERTIFICATION

I, Jefferson S. Flowers, Technical Director, do HEREBY CERTIFY that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature:  Date: 07/24/12

RECEIVED
AUG 09 2012
DEP Central Dist

* Failure to provide a valid and current Florida DOH certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report and possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

CONFIRMATION AND NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE MCL EXCEEDANCES

NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH A "U" QUALIFIER. (Non-detects reported as "BDL" or with a "<" are not acceptable.)

Compliance Determination (to be completed by DEP or DOH - attach notes as necessary)

Sample Collection & Analysis Satisfactory ☐Yes ☐No _____ Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

INORGANIC CONTAMINANTS
62-550.310(1)

Report Number / Job ID: 179363DW1
PWS ID (From Page 1): 3480327

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier	Analytical Method	Lab MDL	Analysis Date	Analysis Time	DOH Lab Cert #
1040	Nitrate (as N)	10	mg/L	0.0500	U	EPA300.0	0.0500	07/03/12	03:00 PM	E83018
1041	Nitrite (as N)	1	mg/L	0.0500	U	EPA300.0	0.0500	07/03/12	03:00 PM	E83018
1005	Arsenic	0.010	mg/L	0.00100	U	EPA200.8	0.00100	07/03/12		E83018
1010	Barium	2	mg/L	0.00381		EPA200.8	0.00200	07/03/12		E83018
1015	Cadmium	0.005	mg/L	0.00100	U	EPA200.8	0.00100	07/03/12		E83018
1020	Chromium	0.1	mg/L	0.00457		EPA200.8	0.00100	07/03/12		E83018
1024	Cyanide	0.2	mg/L	0.00500	U	SM4500CN-E	0.00500	07/06/12		E83018
1025	Fluoride	4.0	mg/L	0.262		EPA300.0	0.200	07/03/12		E83018
1030	Lead	0.015	mg/L	0.00100	U	EPA200.8	0.00100	07/03/12		E83018
1035	Mercury	0.002	mg/L	0.0000200	U	EPA245.1	0.0000200	07/03/12		E83018
1036	Nickel	0.1	mg/L	0.00239		EPA200.8	0.00100	07/03/12		E83018
1045	Selenium	0.05	mg/L	0.00200	U	EPA200.8	0.00200	07/03/12		E83018
1052	Sodium	160	mg/L	14.9		EPA200.7	0.500	07/05/12		E83018
1074	Antimony	0.006	mg/L	0.00100	U	EPA200.8	0.00100	07/03/12		E83018
1075	Beryllium	0.004	mg/L	0.000500	U	EPA200.8	0.000500	07/03/12		E83018
1085	Thallium	0.002	mg/L	0.00100	U	EPA200.8	0.00100	07/03/12		E83018

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

SECONDARY CONTAMINANTS
62-550.320

Report Number / Job ID: 179363DW1
PWS ID (From Page 1): 3480327

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier	Analytical Method	Lab MDL	Analysis Date	Analysis Time	DOH Lab Cert #
1002	Aluminum	0.2	mg/L	0.0200	U	EPA200.8	0.0200	07/03/12		E83018
1017	Chloride	250	mg/L	34.2		EPA300.0	2.00	07/09/12		E83018
1022	Copper	1	mg/L	0.00243		EPA200.8	0.00100	07/03/12		E83018
1025	Fluoride	4.0	mg/L	0.262		EPA300.0	0.200	07/03/12		E83018
1028	Iron	0.3	mg/L	0.0100	U	EPA200.7	0.0100	07/05/12		E83018
1032	Manganese	0.05	mg/L	0.0100	U	EPA200.7	0.0100	07/05/12		E83018
1050	Silver	0.1	mg/L	0.000500	U	EPA200.8	0.000500	07/03/12		E83018
1055	Sulfate	250	mg/L	4.45		EPA300.0	1.00	07/02/12		E83018
1095	Zinc	5	mg/L	0.0100	U	EPA200.8	0.0100	07/03/12		E83018
1905	Color	15	CU	15.0		SM2120 B	5.00	07/02/12	02:35 PM	E83018
1920	Odor	3	TON	1.00	U	SM2150 B	1.00	07/02/12	02:30 PM	E83018
1925	pH	6.5 -8.5	pH	8.04		SM4500-H B	0.0100	07/02/12	03:05 PM	E83018
1930	Total Dissolved Solids	500	mg/L	216		SM2540 C	2.50	07/06/12		E83018
2905	Foaming Agents	0.5	mg/L	0.200	U	SM5540 C	0.200	07/03/12	08:00 AM	E83018

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

VOLATILE ORGANICS
62-550.310(2)(b)

Report Number / Job ID: 179363DW1
PWS ID (From Page 1): 3480327

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier	Analytical Method	Lab MDL	RDL	Analysis Date	Analysis Time	DOH Lab Cert #
2378	1,2,4,-trichlorobenzene	70	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2380	cis-1,2-Dichloroethylene	70	ug/L	0.200	U	EPA502.2	0.200	0.5	07/10/12		E83018
2955	Xylenes	10000	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2964	Dichloromethane	5	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2968	o-dichlorobenzene	600	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2969	Para-dichlorobenzene	75	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2976	Vinyl Chloride	1	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2977	1,1-Dichloroethylene	7	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2979	trans-1,2-Dichloroethylene	100	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2980	1,2-Dichloroethane	3	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2981	1,1,1-trichloroethane	200	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2982	Carbon tetrachloride	3	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2983	1,2-dichloropropane	5	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2984	Trichloroethylene	3	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2985	1,1,2-trichloroethane	5	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2987	Tetrachloroethylene	3	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2989	Monochlorobenzene	100	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2990	Benzene	1	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2991	Toluene	1000	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2992	Ethylbenzene	700	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018
2996	Styrene	100	ug/L	0.500	U	EPA502.2	0.500	0.5	07/10/12		E83018

Florida Department of Environmental Protection

Safe Drinking Water Program Laboratory Reporting Format

SYNTHETIC ORGANICS
62-550.310(2)(c)

Report Number / Job ID: 179363DW1
PWS ID (From Page 1): 3480327

Contai ID	Contam Name	MCL	Units	Analysis Result	Qualifier	Analytical Method	Lab MDL	RDL	Extraction Date	Analysis Date	Analysis Time	DOH Lat Cert #
2005	Endrin	2	ug/L	0.0100	U	EPA505	0.0100	0.01	07/09/12	07/10/12		E83018
2010	Lindane	0.2	ug/L	0.0100	U	EPA505	0.0100	0.02	07/09/12	07/10/12		E83018
2015	Methoxychlor	40	ug/L	0.0500	U	EPA505	0.0500	0.1	07/09/12	07/10/12		E83018
2020	Toxaphene	3	ug/L	0.500	U	EPA505	0.500	1	07/09/12	07/10/12		E83018
2031	Dalapon	200	ug/L	0.100	U	EPA515.4	0.100	1	07/03/12	07/10/12		E83018
2032	Diquat	20	ug/L	0.400	U	EPA549.2	0.400	0.4	07/05/12	07/16/12		E83018
2033	Endothall	100	ug/L	9.00	U	EPA548.1	9.00	9	07/02/12	07/05/12		E83018
2034	Glyphosate	700	ug/L	6.00	U	EPA547	6.00	6		07/03/12		E83018
2035	Di(2-ethylhexyl) adipate	400	ug/L	0.600	U	EPA525.2	0.600	0.6	07/10/12	07/17/12		E83018
2036	Oxamyl (Vydate)	200	ug/L	2.00	U	EPA531.1	2.00	2.0		07/10/12		E83018
2037	Simazine	4	ug/L	0.0700	U	EPA507	0.0700	0.07	07/09/12	07/10/12		E83018
2039	Di(2-ethylhexyl)phthalate	6	ug/L	0.600	U	EPA525.2	0.600	0.6	07/10/12	07/17/12		E83018
2040	Picloram	500	ug/L	0.100	U	EPA515.4	0.100	0.1	07/03/12	07/10/12		E83018
2041	Dinoseb	7	ug/L	0.200	U	EPA515.4	0.200	0.2	07/03/12	07/10/12		E83018
2042	Hexachlorocyclopentadiene	50	ug/L	0.100	U	EPA505	0.100	0.1	07/09/12	07/10/12		E83018
2046	Carbofuran	40	ug/L	0.900	U	EPA531.1	0.900	0.9		07/10/12		E83018
2050	Atrazine	3	ug/L	0.100	U	EPA507	0.100	0.1	07/09/12	07/10/12		E83018
2051	Alachlor	2	ug/L	0.200	U	EPA507	0.200	0.2	07/09/12	07/10/12		E83018
2065	Heptachlor	0.4	ug/L	0.0100	U	EPA505	0.0100	0.04	07/09/12	07/10/12		E83018
2067	Heptachlor epoxide	0.2	ug/L	0.0100	U	EPA505	0.0100	0.02	07/09/12	07/10/12		E83018
2105	2,4-D	70	ug/L	0.100	U	EPA515.4	0.100	0.1	07/03/12	07/10/12		E83018
2110	2,4,5-TP	50	ug/L	0.200	U	EPA515.4	0.200	0.2	07/03/12	07/10/12		E83018
2274	Hexachlorobenzene	1	ug/L	0.100	U	EPA505	0.100	0.1	07/09/12	07/10/12		E83018
2306	Benzo(a)pyrene	0.2	ug/L	0.0200	U	EPA525.2	0.0200	0.02	07/10/12	07/17/12		E83018
2326	Pentachlorophenol	1	ug/L	0.0400	U	EPA515.4	0.0400	0.04	07/03/12	07/10/12		E83018
2383	PolychlorinatedbiphenylsPCB	0.5	ug/L	0.100	U	EPA505	0.100	0.1	07/09/12	07/10/12		E83018
2931	Dibromochloropropane	0.2	ug/L	0.0200	U	EPA504.1	0.0200	0.02	07/09/12	07/10/12		E83018
2946	Ethylene Dibromide	0.02	ug/L	0.0100	U	EPA504.1	0.0100	0.01	07/09/12	07/10/12		E83018
2959	Chlordane	2	ug/L	0.0100	U	EPA505	0.0100	0.2	07/09/12	07/10/12		E83018

Florida Department of Environmental Protection
Safe Drinking Water Program Laboratory Reporting Format

LABORATORY CERTIFICATION INFORMATION (to be completed by lab – please type or print legibly)

Lab Name: KNL Laboratory Services Florida DOH Certification #: E 84025 Certification Expiration Date: June Renewal

ATTACH CURRENT DOH ANALYTE SHEET*

Address: P. O. Box 1833 Tampa, FL 33601 Phone #: 813-229-2879

Were any analyses subcontracted? ☐Yes ☒No If yes, please provide DOH certification number(s): _____

ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB*

ANALYSIS INFORMATION (to be completed by lab) Date Sample(s) Received: 07-12-12

PWS ID (From Page 1): 3480327 Sample Number (From Page 1): 179363 DW Lab Assigned Report # or Job ID: 125881

Group(s) Analyzed & Results attached for compliance with Chapter 62-550, F.A.C. (Check all that apply):

Inorganics	Synthetic Organics	Volatile Organics	Disinfection Byproducts	Radionuclides	Secondaries
☐All Except Asbestos	☐All 30	☐All 21	☐Trihalomethanes	☒Single Sample	☐All 14
☐Partial	☐All Except Dioxin	☐Partial	☐Haloacetic Acids	☐Qtrly Composite**	☐Partial
☐Nitrate	☐Partial		☐Chlorite		
☐Nitrite	☐Dioxin Only		☐Bromate		
☐Asbestos					

LAB CERTIFICATION

I, James Hayes (Print Name), Laboratory Manager (Print Title), do HEREBY CERTIFY that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature: James W Hayes Date: 7-24-12

* Failure to provide a valid and current Florida DOH lab certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report, possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

CONFIRMATION & NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE OR NITRITE MCL EXCEEDANCES
NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH A "U" QUALIFIER. (Non-detects reported as "BDL" or with a "<" are not acceptable.)

RECEIVED
AUG 09 2012
DEP Central Dist.

COMPLIANCE DETERMINATION (to be completed by DEP or DOH – attach notes as necessary)

Sample Collection & Analysis Satisfactory: ☐Yes ☐No _____ Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____

KNL Laboratory Services, Inc.
2742 N. Florida Ave.
P.O. Box 1833
Tampa, FL 33601

Ph: (813) 229-2879 Fax: (813) 229-0002

Florida Department of Environmental Protection
Safe Drinking Water Program Laboratory Reporting Format

RADIONUCLIDES
62-550.310(6)
Client ID: Flowers-179363DW

KNL Report Number/Job ID: 12.5881
PWS ID(From Page 1): 3480322

Contam ID	Contam Name	MCL	Units	Analysis Result	Qualifier *	Analytical Method	Lab MDL	RDL	Analysis Error	Analysis Date	Analysis Time	DOH Lab Certification #
4002	Gross Alpha (incl Uranium)	15 ***	pCi/L	2.0		EPA 900.0	1.1	3	0.9	07-18-12	0800	E84025
4020	Radium-226	5	pCi/L	0.6	U	EPA 903.0	0.6	1	0.4	07-17-12	1115	E84025
4030	Radium-228		pCi/L	1.0	U	EPA Ra-05	1.0	1	0.7	07-20-12	1105	E84025

Reporting Format 62-550.730
Effective January 1995, Revised February 2010.

* Qualifier Codes: U = indicates that the compound was analyzed for but not detected.
I = the reported value is between the laboratory detection limit and the laboratory practical quantitation limit.

** If the result exceeds 5 pCi/L, a measurement for radium-226 is required. Uranium is reported separately under Contam ID 4006.

*** If the results exceed 5 pCi/L, a measurement for radium-226 is required. If the results exceed 15 pCi/L, a measurement for Combined Uranium must be reported separately. The DEP/DOH will subtract the U value from the Gross Alpha (ID 4002) to determine compliance with MCL for Gross Alpha (Excl.U) of 15 pCi/L. If the result for ID 4002 Gross Alpha (incl.Uranium) does not exceed 15 pCi/L, Combined Uranium need not be measured nor reported.

**** If using Uranium testing methods ASTM D5174 or EPA 200.8 only, then Analysis Error need not be reported.

Test results meet all requirements of the NELAC standards. Contact person: Jim Hayes (813) 229-2879.

Approved by: James W. Hayes
James W. Hayes
Laboratory Director

FLOWERS CHEMICAL LABORATORIES INCORPORATED

☐ **Flowers Chemical Laboratories, Inc.**
481 Newburyport Ave.
Altamonte Springs, FL 32701
Bus: 407-339-5984
Fax: 407-260-6110

☐ **Flowers Chemical Labs-South**
West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
Port St. Lucie, FL 34986
Bus: 772-343-8006
Fax: 772-343-8089

☐ **Flowers Chemical Labs-North**
812 S.W. Harvey Greene Dr.
Madison, FL 32340
Bus: 850-973-6878
Fax: 850-973-6878

☐ **Flowers Chemical Labs-Keys**
3980 Overseas Highway
Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8598

www.flowerslabs.com

Client: Town of Eatonville

Address: 307 E. Kennedy Ave
Eatonville, FL 32751

Phone: 386 8045201

Sampled By (PRINT): CTolAJr C1345

Sampler Signature: [signature]

Date Sampled: 7/2/12

Public Water System Name: Town of Eatonville

PWS ID#: 3480327

P.O. #:

FCL Lab Coordinator:

Kit #:

Public Water System Type: ☐ Limited Use Commercial / Public
☒ Community ☐ Non-Community ☐ Non-transient / Non-Community

COMMENTS:

DRINKING WATER - Chain of Custody F.A.C. 62 - 550

ITEM NO.	SAMPLE DESCRIPTION	DATE	TIME	LAB NO.	NUMBER	PRESERVATIVES: NONE	NaOH	HNO_3	HCl	$Na_2S_2O_3$		Primary Inorg.	Secondaries	VOCs	SOCs	NO_2 / NO_3	TTHM	THAA	Pb/Cu	GA / RA228 RA226	Asbestos				Field pH	Field Cl_2 Res
1	Plant Tap/POE	7/2/12	1115	179303DW	1							X	X	X	X					X						
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										

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AUG 09 2012
DEP Central Dist.

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
[signature]	7/2/12	1205							[signature] FL	7/2/12	12:05

• **WHITE** - Ship with Samples / To Be Returned with Results • **YELLOW** - Field Copy / Retain For Your Records

PDW 02-04

Recd 7/24/12 via email

Check Box That Applies To Your Location

☑ **Flowers Chemical Laboratories, Inc.**
481 Newburyport Ave.
Altamonte Springs, FL 32701
Bus: 407-339-5984
Fax: 407-260-6110

☐ **Flowers Chemical Labs-South**
West Park Industrial Plaza
571 N.W. Mercantile Pl., Ste. 111
Port St. Lucie, FL 34986
Bus: 772-343-8006
Fax: 772-343-8089

☐ **Flowers Chemical Labs-North**
812 S.W. Harvey Greene Dr.
Madison, FL 32340
Bus: 850-973-6878
Fax: 850-973-6878

☐ **Flowers Chemical Labs-Keys**
3980 Overseas Highway, Ste. 103
Marathon, FL 33050
Bus: 305-743-8598
Fax: 305-743-8598

FLOWERS CHEMICAL LABORATORIES INCORPORATED

DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY www.flowerslabs.com

RECEIVED
AUG 09 2012
DEP Central Dist.

Client: KNL Labs	Project Name	P.O. #	
Address	Client Contact	FAX	
	FCL Project Manager	E-MAIL	
Phone	Requested Due Date 10 Day Standard OR	Rush Charges May Apply	
Sampled By (PRINT):	Pick-Up Fee $	Vehicle Surcharge $	Sampling Fee $
Sampler Signature / Date Sampled			

GW - ground water DW - drinking water WW - wastewater
SW - surface water SO - soil/solid SL - sludge HW - waste

ITEM NO.	SAMPLE ID	DATE	TIME	MATRIX	(LAB USE ONLY) LAB NO.	PRESERVATIVES: NONE	H_2SO_4	HNO_3	HCl	$Na_2S_2O_3$	ANALYSES REQUEST: GA	Rad 224	Rad 228	Vanadium	COMMENTS	Total # Containers
1	179963DW	7/2/12	1115	DW				✓			✓	✓	✓		1 bottle Spilled	2
2	179973DW1	7/2	0835	DW				✓			✓	✓	✓			2
3	178147DW1	6/14/12	10:54	DW				✓				✓				1
4	179904DW1	7/10	1340	DW				✓			✓	✓	✓			2
5	179944DW1	7/10	0815	DW				✓			✓	✓	✓	✓	12.5881-89	2
6	179945DW1	7/10	0645	DW				✓			✓	✓	✓	✓		2
7	179946DW1	7/10	0908	DW				✓			✓	✓	✓	✓	1 bottle Spilled	2
8	179947DW1	7/10	1030	DW				✓	~~HCl~~		✓	✓	✓	✓		2
9	179969DW1	7/11	0800	DW				✓	~~HCl~~		✓	✓	✓		1 bottle Spilled	2
10																

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
							7/11/12	1400		7/12/12	1025

FINANCE CHARGES APPLIED TO PAST DUE INVOICES

• WHITE - Lab Copy - To Be Scanned • YELLOW - Client Copy

Rev 04-08

APPENDIX C: 2017 Sanitary Survey – PWS No. 3480327

Florida Department of Environmental Protection

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

August 23, 2017

Katrina Gibson, Finance Director
Town of Eatonville
307 E. Kennedy BLVD
Eatonville, FL 32751
KGIBSON@TOWNOFEATONVILLE.ORG

Re: Compliance Assistance Offer
Town of Eatonville
PW 3480327
Orange County

Dear Ms. Gibson:

An inspection was conducted at your facility on June 20, 2017, under the authority of Section 403.091, Florida Statutes (F.S.). During this inspection, potential non-compliance with the requirements under Chapter 403, F.S., Chapter 62-555.350(2), Florida Administrative Code (F.A.C.), Chapter 62-555.360(2), F.A.C., and Chapter 62-555.320(14)(f), F.A.C. were observed. The purpose of this letter is to offer you compliance assistance as a means of resolving this/these matter(s).

Please see the attached inspection report for a full account of Department observations and recommendations. We request you review the item(s) of concern noted in the attached inspection report and respond in writing within **7 days** of receipt of this Compliance Assistance Offer. Your written response should either:

1. Describe what you have done or provide a time schedule to address the items of concern noted in the attached report (see “Deficiencies" section of the report)
2. Provide information that either mitigates the concerns or demonstrates them to be invalid, or
3. Arrange for one of our inspectors to visit your facility to discuss the item(s) of concern.

It is the Department’s desire that you are able to adequately address the items of concern so that this matter can be closed. Your failure to respond appropriately may result in the initiation of formal enforcement proceedings.

Please address your response and any questions to Dan Shideler of the Central District Office at 407-897-4133 or via e-mail at Daniel.Shideler@dep.state.fl.us. We look forward to your cooperation with this matter.

Sincerely,

Nathan Hess, Manager
Central District
Florida Department of Environmental Protection

Enclosure: Inspection Report (with attachments)
Cc: Damaris Persaud, Town of Eatonville (dpersaud@townofeatonville.org)
Abu Canady, Town of Eatonville (acanady@townofeatonville.org)

State of Florida
Department of Environmental Protection
Central District

SANITARY SURVEY REPORT

Plant Name **TOWN OF EATONVILLE** County Orange PWS ID # **3480327**
Plant Location 332 East Kennedy Boulevard, Eatonville, FL 32751 Phone 407-623-8900
Owner Name Town of Eatonnville Phone 407-623-8900
Owner Address 307 East Kennedy Boulevard, Eatonville, FL 32751
Contact Person Damaris Persaud Title Administrative Assistant Phone 407-623-8904
This Survey Date 06/20/17 Last Survey Date 12/23/14 Last Compliance Inspection Date 12/29/98

PWS TYPE: Community

PLANT CATEGORY & CLASS: 4C

MAX-DAY DESIGN CAPACITY: 1,440,000 gpd

PWS STATUS: Approved

TREATMENT PROCESSES IN USE
Aeration
Hypochlorination

SERVICE AREA CHARACTERISTICS
Municipality/city
Food Service: ☐ Yes ☐ No ☒ N/A

Number of Service Connections 779
Population Served 2,727 Basis X 3.5

OPERATION & MAINTENANCE LOG: Yes
Location Water Treatment Plant
Comments

CERTIFIED OPERATOR: Yes
Operator(s) & Certification Class-Number:
Carlos A. Tola A-3758
Carlos A. Tola Jr. C-13475
Hrs/day: *Required* 1 *Actual* 1
Days/wk: *Required* 5+2 *Actual* 5+2
Non-consecutive Days? ☐ Yes ☐ No ☒ N/A
Comments

MONTHLY OPERATION REPORTS (MORs)
MORs submitted regularly? ☒ Yes ☐ No ☐ N/A
Data missing from MORs? ☒ No ☐ Yes ☐ N/A
Average Day (from MORs) 344,448 gpd
Maximum Day (from MORs) 1,261,000 gpd 3/17
Comments

Flow Measuring Device Flow Meter
Meter Size & Type 10" Water Specialties
Date Last Calibrated 3/11

RAW WATER SOURCE
☒ GROUND; Number of Wells 2
☐ PURCHASED from PWS ID #
☐ Emergency Water Source
Emergency Water Capacity

STANDBY POWER SOURCE: Yes
Source Diesel generator
Capacity of Standby (kW) 150
Switchover: ☒ Automatic ☐ Manual
Hrs Operated Under Load 1 hr/wk.
What equipment does it operate?
☐ Well Pumps N/A
☒ High Service Pumps
☒ Treatment Equipment
Satisfy avg. daily demand? ☒Yes ☐No ☐Unknown
Audio-visual alarm? ☐Yes ☒No
Comments Unable to locate Audio-Visual Alarm.

PLANS AND MAPS

Coliform Sampling Plan	☒ Yes	☐ No	☐ N/A
D/DBP Monitoring Plan	☒ Yes	☐ No	☐ N/A
Lead and Copper Plan	☒ Yes	☐ No	☐ N/A
Distribution System Map	☒ Yes	☐ No	☐ N/A
Emergency Response Plan	☒ Yes	☐ No	☐ N/A

Comments

PREVENTIVE MAINTENANCE/O&M
Operation & Maintenance Manual ☒ Yes ☐ No
Preventive Maintenance Program ☒ Yes ☐ No

Flushing Program	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A
Isolation Valve Exercise	☒ Yes	☐ No	☐ N/A
Records	☒ Yes	☐ No	☐ N/A

Comments No blow-offs or auto flushers. Isolation valves are only checked at the time of a main break.

CROSS CONNECTION CONTROL
BFPAs Unknown # Tested Unknown
WWTP RPZ N/A Date Tested N/A
Written Plan No Date Unknown
Comments No Plan available for review.

PWS ID # 3480327
Date 6/20/17

GROUND WATER SOURCE

Well Number (Florida Unique Well ID #)		Well #2-West (AAI5809)	Well #1-East (AAI5812)
Year Drilled		2005	2005
Depth Drilled		601’	601’
Drilling Method		Rotary	Rotary
Type of Grout		Unknown	Unknown
Static Water Level		45.3’	43.2’
Pumping Water Level		Unknown	Unknown
Design Well Yield		Unknown	Unknown
Test Yield		1,650 gpm	1,650 gpm
Actual Yield (if different than rated capacity)		990	Unknown
Strainer		Unknown	Unknown
Length (outside casing)		80’	62’
Diameter (outside casing)		18”	18”
Material (outside casing)		Black steel	Black steel
Well Contamination History		None	None
Is inundation of well possible?		No	No
6’ X 6’ X 4” Concrete Pad		Yes	Yes
SET BACKS	Septic Tank	N/A	N/A
	Reuse Water	N/A	N/A
	WW Plumbing	>100’	>100’
	Other Sanitary Hazard	None noted	None noted
PUMP	Type	Vertical turbine	Vertical turbine
	Manufacturer Name	Deming	Deming
	Model Number	XH10	XH10
	Rated Capacity (gpm)	500	500
	Motor Horsepower	40	40
Well casing 12” above grade?		Yes	Yes
Well Casing Sanitary Seal		*Yes	*Yes
Raw Water Sampling Tap		Yes	Yes
Above Ground Check Valve		Yes	Yes
Security		Yes	Yes
Well Vent Protection		Yes	Yes

COMMENTS Well # 1 has a power supply (Generac) generator.
* The piping associated with the eastern and western well is corroded.

PWS ID # 3480327
Date 06/20/17

CHLORINATION (Disinfection)
Type: ☐ Gas ☒ Hypo
Make Stenner (2) Capacity 17 gpd
Chlorine Feed Rate Both at 90% stroke
Avg. Amount of Cl_2 gas used N/A
Chlorine Residuals: Plant 2.2+ Remote 1.7
Remote tap location Life Center Church
DPD Test Kit: ☐ On-site ☒ With operator
☐ None ☐ Not Used Daily
Injection Points Aerator basin
Booster Pump Info N/A
Comments

FLUORIDATION
Chemical Used
Strength
Corrosion Noted Plugging Noted
Feeder Make/Model
High Level Ventilation (acid)
Acid carboys/day tank vented outside
Designated Electrical Outlet (acid)
Analytical Testing Equipment
Anti-siphon Valves
Residual Range
Point of Application
Emergency Eyewash
Comments Currently offline

AERATION (Gases, Fe, & Mn Removal)
Type Cascade Capacity 1,000 gpm
Aerator Condition Satisfactory
Visible Algae Growth Unknown
Protective Screen Condition Ok
Frequency of Cleaning Annually
Date Last Inspected/Cleaned 2010
Comments Influent is chlorinated.
Observations were made at ground level.

STORAGE FACILITIES
(G) Ground (C) Clearwell (E) Elevated
(B) Bladder (H) Hydropneumatic / flow-through

Tank Type/Number	G	E
Capacity (gal)	200,000	200,000
Material	Concrete	Steel
Gravity Drain	Yes	Yes
By-Pass Piping	No	No
Protected Openings	Yes	Yes
Sight Glass or Level Indicator	Yes	Yes
PRV/ARV	N/A	N/A
Pressure Gauge	N/A	No
On/Off Pressure	18.5'/22'	17.5'/24'
Access Secured	Yes	Yes
Access Manhole	Yes	Yes
Tank Sample Tap Location	On tank	Standpipe
Date of Inspection	4/15	3/11
Date of Cleaning	4/15	3/11

Comments Personnel are notified via text in the event of a high/low water level alarm. Not verified during inspection.

HIGH SERVICE PUMPS

Pump Number	1-East	2-West	3-South
Type	Centrifugal	Centrifugal	Centrifugal
Make	Goulds	Goulds	Unknown
Model	3756	3656	Unknown
Capacity (gpm)	500	500	800
Motor HP	40	40	50
Date Installed	1981	1981	2000

Comments

PWS ID # 3480327
Date 6/20/17

DEFICIENCIES:

Areas of Concern	Rule	Corrective Action	Date Corrected	Significant Deficiency?
Finished drinking water tank(s) has been inspected by a licensed engineer but not within the required 5-year time period.	62.555.350(2)	Have future tank inspections completed at least once every 5 years.		No
No cross-connection control program. No Cross-Connection Control Plan (CCCP) on file.	62-555.360(2)	Establish and implement a cross-connection control program. Submit a CCCP.		Yes
No audio-visual alarm for power failure at site where standby power is required.	62-555.320(14)(f)	Provide an audio-visual alarm system that will activate in the event of any power failure.		No
Chlorine pump was not properly working	62.555.350(2)	Repair chlorinator	Operator repaired chlorine line during inspection	No
Well piping on eastern and western well is corroded. The piping associated with the 3 high service pumps is corroded.	62.555.350(2)	Sand and paint.		No

MONITORING REMINDER:

- Nitrate and nitrite samples are required to be collected from the point of entry (POE) to the distribution system annually. The 2017 results have not been received.

COMMENTS:

- **Contact FRWA (Florida Rural Water Association) at 850-668-2746, or** frwa@frwa.net, for free technical assistance with your system. FRWA has extended benefits offered to members.
- Provide documentation that the finished-drinking-water meter has been calibrated at least every 5 years.

  Checking the calibration of finished-drinking-water meters at treatment plants shall be performed in accordance with the equipment manufacturer's recommendations or in accordance with a written preventive maintenance program established by the supplier of water. [Rule 62-555.350(2), F.A.C.]
- Suppliers of water shall submit written notification to the Department before beginning work or alterations to the public water system. Each notification shall be submitted to the appropriate Department of Environmental Protection District Office or Approved County Health Department and shall include the following: a description of the scope, purpose, and location of the work or alterations; and assurance that the work or alterations will comply with applicable requirements listed in Rule 62-555.330, F.A.C. Suppliers of water may begin such work or alterations 14 days after providing notification to the Department unless they are advised by the Department that the notification is incomplete or that a construction permit is required.
- Suppliers of water shall telephone the SWO at 1-800-320-0519 immediately (i.e., within two hours) after discovery of any actual or suspected sabotage or security breach, or any suspicious incident, involving a public water system. [Rule 62-555.350(10)(a), F.A.C.]

PWS ID # 3480327
Date 6/20/17

COMMENTS CONTINUED:

- Suppliers of water shall telephone, and speak directly to a person at, the appropriate DEP District Office as soon as possible, but never later than noon of the next business day, in the event of any of the following emergency or abnormal operating conditions:
  - The occurrence of any abnormal color, odor, or taste in a public water system's raw or finished water;
  - The failure of a public water system to comply with applicable disinfection requirements; or
  - The breakdown of any water treatment or pumping facilities, or the break of any water main, in a public water system if the breakdown or break is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(b), F.A.C.]
- Suppliers of water shall notify affected water customers in writing or via telephone, newspaper, radio, or television; and telephone, and speak directly to a person at, the appropriate DEP District Office by no later than the previous business day before taking PWS components out of operation for planned maintenance or repair work if the work is expected to adversely affect finished-water quality, interrupt water service to 150 or more service connections or 350 or more people, interrupt water service to any one service connection for more than eight hours, or necessitate the issuance of a precautionary "boil water" notice in accordance with the Department of Health's "Guidelines for the Issuance of Precautionary Boil Water Notices" as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(10)(d), F.A.C.]
- Suppliers of water shall issue precautionary “boil water” notices as required or recommended in the Department of Health’s “Guidelines for the Issuance of Precautionary Boil Water Notices” as adopted in Rule 62-555.335, F.A.C. [Rule 62-555.350(11), F.A.C.]

Inspector Signature

Reviewer Signature

Daniel Shideler
Printed Name

Nathan Hess
Printed Name

Environmental Specialist
Title

Environmental Manager
Title

8/22/17
Date

8/23/17
Date

APPENDIX D: Storage Tank Condition Assessment

- Off-Site EST Inspection – February 18, 2018
- GST Inspection – April 18th, 2015

Inn Depth CO.
800 Belle Terre Pkwy, Unit 200 #122
Palm Coast, FL 32164
(386) 202-2771

In-Depth Inspection Report for

Town of Eatonville

Eatonville, FL

Elevated **Tower**

200kg **Steel Welded On-Grade**

Constructed Year: 1979

Inspection Date: 2/18/18

Person Completing Report: Z.R.

Supervisor: Z.R.

Team: Alpha

Engineer: M.A.

☑

Scope of Work:

Our Dive team has preformed and completed a full in water clean/sediment removal to the previously referenced tank. Sediment depths, ranging from **1/2" - 2"**, were removed from the tanks floor and/ or walls. Upon the completion of the cleaning services, our surveying crew and inspection team has taken this structure under full evaluation (internally & externally) to prepared an "In Depth" visual inspection (NDT) of this referenced tank and its fixtures. The evaluation taken on the construction of this tank, complies with all related ANSI/AWWA codes. All NDT (non-destructive testing) have been performed up to code, in order to identify the structural integrity as well as the coating condition of this structure. All operable plumbing components have been inspected and evaluated within this report. All evaluations done, where performed in according to American Water Works Association (AWWA), NACE, SSPC, ASNT, ACI and AWS standards under the guidance of OSHA, DEP, and EPA regulations. Utilizing the necessary and proper procedures, the tank has been left internal in sanitary condition. Elements found prior to clean as well as details of the inspection and its findings have been included within the report below.

Summary of the Inspection:

Exterior Inspection

1. Unsecured perimeter (broken / obstructed gate)
2. Noticeable signs of possible leaking below bowl near wet riser
3. Heavy corrosive damaged noted on opened access hatch (remains unsecured)
4. Excessive infestation of wasps noted near cat walk (eliminated)
5. Heavily d-alloyed areas of the cat walk noted (unsafe)
6. Noticeable signs of coating failure noted throughout entirety of coating
7. Heavy signs of d-alloying noted on and around center vent

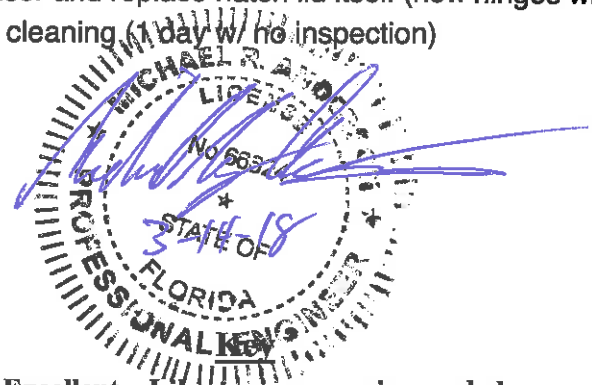
Interior Inspection

1. 1/2" - 2" sediment collectively noted on bowl / floor areas of tank (multi-type sediment)
2. 1/2" bio-film sediment remains on walls
3. Over coating w/ heavy sags noted throughout floor and walls
4. Loosely placed trash rack over center floor common Inlet / Outlet

Recommendations:

1. Routine Clean & Inspect every 3-5 years per AWWA recommendations
2. Exterior Blast & Re-coat
3. Replace top half of center vent due to severity of corrosion
4. Repair access hatch riser and replace hatch lid itself (new hinges will be needed)
5. Schedule internal wall cleaning (1 day w/ no inspection)

Engineer Seal:



Key

Excellent – Like new, no repairs needed
Good – Cosmetic problems, repair if client wants
Fair – Minor problems, repairs needed
Poor – Major problems, fix now

☑

Tank Evaluation

Tank Security

Is the tank in a secured, gated area? Y ○ N ◉
Are the access gates locked? Y ○ N ◉
Is the tank equipped with a vandal guard on the access ladder(s)? Y ◉ N ○ N/A ○
Is the vandal guard locked? Y ○ N ◉ N/A ○
Are all of the access hatches locked? Y ○ N ◉
Are all of the vents/discharge openings properly covered? Y ○ N ◉
Does the tank exterior show any signs of trespass? Y ◉ N ○
Is the area surrounding the tank well lit? Y ○ N ◉
Are there any additional security features? Y ○ N ◉

Description: N/A

Additional Notes: Access hatch found to be offset & opened (NOW closed but remains unsecured)

Tank Condition

Does the tank appear to be structurally sound? Y ◉ N ○
Are there any unprotected openings in the tank (breaches, leaks, daylight, etc.) Y ◉ N ○
When viewed from inside the tank, is there visible daylight around the hatches, vents, joints or other fixtures? Y ◉ N ○

Description: hatch riser & center vent

Tank Cleaning

Sediment depth before cleaning: 1/2" - 2" Sediment type: Bio-film / Iron / Manganeses
List any objects found inside the tank during cleaning that may have introduced contamination:

None noted

☑

In Depth CO.
Exterior Inspection Report

Wall Panel Condition

Wall / Coating Condition:
Dents? Y ⊙ N ○
Holes? Y ○ N ⊙
Signs of Leaking Y ○ N ⊙
☑ Oxidation: Approx. 17%
☑ D-lamination: Approx. 33%
☑ Staining: Heavy — Type: Corrosive
☐ Blistering: N/A — Type: None
☑ Cracking: Moderate — Type: Coatings
☑ Chalking: Heavy
☑ Checking: Heavy
☐ Pinholes: N/A
☑ Saggs and Runs: Minor

Seams/Welds Condition: Good to Fair

Corrosion:
☐ None/NA
☑ Uniform Surface Corrosion: Approx. 17%
☑ Concentrated Cell Corrosion: To Extent of 10%
☐ Rust Noduling/Pitting: N/A — Depth: N/A
☐ Galvanic: N/A
☑ De-alloying: Extensive: < 1%
☑ Intergranular: To Extent of 3%
☐ Stress Corrosion Cracking: N/A
☐ Erosion Corrosion: N/A

Overall Condition: Fair

Additional Notes:
- failed coating
- heavy chalking& staining noted throughout
- areas of cat walk around tank showing heavy signs of d-alloying (unsafe)
- series of active radio antennas attached

Access Ladder Condition

Ladder Type: Steel Welded
OSHA Adherence? Y ○ N ⊙
Vandal Guard Present? Y ⊙ N ○
Locked? Y ○ N ⊙ N/A ○
Safety Climb Type: None
OSHA Adherence? Y ○ N ⊙

Coating Condition:
☑ Oxidation: To Extent of 10%
☑ D-lamination: Approx. 50%
☑ Staining: Heavy — Type: Corrosive
☐ Blistering: N/A — Type: None
☑ Cracking: Moderate — Type: Coating
☑ Chalking: Heavy
☑ Checking: Heavy
☐ Pinholes: N/A
☑ Saggs and Runs: Moderate

Seams/Welds Condition: Good to Fair

Corrosion:
☐ None/NA
☑ Uniform Surface Corrosion: Approx. 17%
☑ Concentrated Cell Corrosion: To Extent of 10%
☐ Rust Noduling/Pitting: N/A — Depth: N/A
☐ Galvanic: N/A
☑ De-alloying: Few Isolated: < 0.1%
☑ Intergranular: To Extent of 3%
☐ Stress Corrosion Cracking: N/A
☐ Erosion Corrosion: N/A

Standoff Supports Condition: Good to Fair

Overall Condition: Good to Fair

Additional Notes:
- no existing safety climb noted
- 2 ladders noted (equal ratings)
- lower fixed ladder to support leg
- upper swivel ladder connected to vent

☑

Riser Pipe Condition

Insulation present? Y○ N○
Dents? Y○ N○
Holes? Y○ N○
Signs of Leaking? Y○ N○

Coating Condition:

- ☑ Oxidation: Approx. 33%
- ☑ D-lamination: Approx. 50%
- ☑ Staining: Heavy — Type: Corrosive
- ☐ Blistering: N/A — Type: None
- ☑ Cracking: Moderate — Type: Coating
- ☑ Chalking: Heavy
- ☑ Checking: Heavy
- ☐ Pinholes: N/A
- ☐ Saggs and Runs: N/A

Seams/Welds Condition: Good to Fair

Corrosion:

- ☐ None/NA
- ☑ Uniform Surface Corrosion: Approx. 33%
- ☑ Concentrated Cell Corrosion: To Extent of 3%
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☑ De-alloying: Extensive: < 1%
- ☑ Intergranular: To Extent of 10%
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: Good to Fair

Additional Notes:
- possible signs of leaking below bowl on riser
- heavy plant life over grown on lower portion
- housing internal overflow

Support Structure Condition

Type Of Support Structure: 5 legs w/ turnbuckles
Rod And Turnbuckle Present? Y○ N○
Rod And Turnbuckle Tension: Good

Coating Condition:

- ☑ Oxidation: Approx. 33%
- ☑ D-lamination: Approx. 33%
- ☑ Staining: Heavy — Type: Corrosive
- ☐ Blistering: N/A — Type: None
- ☑ Cracking: Minor — Type: Coating
- ☑ Chalking: Heavy
- ☑ Checking: Heavy
- ☐ Pinholes: N/A
- ☐ Saggs and Runs: N/A

Seams/Welds Condition: Good

Corrosion:

- ☐ None/NA
- ☑ Uniform Surface Corrosion: Approx. 33%
- ☑ Concentrated Cell Corrosion: Approx. 17%
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☑ De-alloying: Extensive: < 1%
- ☑ Intergranular: To Extent of 10%
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: Good to Fair

Additional Notes:
- all legs share equal ratings
- existing antenna cables and brackets
- support structure overall secure
- heavy signs of coating failure

☑

Foundation Condition

Foundation Exposed? Y ⊙ N ○
Foundation Coated? Y ○ N ⊙

Concrete Condition:

- ☐ De-lamination: N/A
- ☑ Deterioration: Minor
- ☑ Pop-outs: Moderate
- ☐ Voids: N/A
- ☐ Unevenness: N/A
- ☑ Cracking: Minor — Type: Hairline
- ☑ Growth: Heavy — Type: Plant
- ☑ Staining: Moderate — Type: Bio
- ☑ Exposed Aggregate: Moderate
- ☐ Exposed Reinforcement: N/A
- ☑ Spalling: Minor

Seams/Welds Condition: Good

Anchor Bolts Present? Y ⊙ N ○
Anchor Bolts Loose? Y ○ N ⊙ N/A ○

Corrosion on Anchor Bolts:

- ☐ None/NA
- ☑ Uniform Surface Corrosion: To Extent of 10%
- ☑ Concentrated Cell Corrosion: To Extent of 10%
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☑ De-alloying: Extensive: < 1%
- ☑ Intergranular: To Extent of 3%
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: Good

Additional Notes:
- over grown w/ plant life
- all leg foundations share equal ratings
- 6 foundations all together (including wet riser)

Float Level Indicator Condition

Pulley Condition: N/A
Attached Properly? Y ○ N ⊙

Cable Condition: N/A
Attached Properly? Y ○ N ⊙
Overall Hardware Condition: N/A

Hardware Cororsion:

- ☐ None/NA
- ☐ Uniform Surface Corrosion: N/A
- ☐ Concentrated Cell Corrosion: N/A
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☐ De-alloying: N/A
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Marker Condition: N/A
Attached & Accurate? Y ○ N ⊙

Marker Cororsion:

- ☐ None/NA
- ☐ Uniform Surface Corrosion: N/A
- ☐ Concentrated Cell Corrosion: N/A
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☐ De-alloying: N/A
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: N/A

Additional Notes: * None noted *
- no longer existing (old parts remain)

N/A

☑

Roof Condition

Roof Type: Domed
Dents/Low Spots? Y ⊙ N ○
Holes? Y ○ N ⊙
Signs of Day Light? Y ○ N ⊙

Coating Condition:

- ☑ Oxidation: Approx. 33%
- ☑ D-lamination: Approx. 33%
- ☑ Staining: Heavy — Type: Corrosive
- ☐ Blistering: N/A — Type: None
- ☑ Cracking: Moderate — Type: Coating
- ☑ Chalking: Heavy
- ☑ Checking: Heavy
- ☐ Pinholes: N/A
- ☐ Saggs and Runs: N/A

Seams/Welds Condition: Fair

Corrosion:

- ☐ None/NA
- ☑ Uniform Surface Corrosion: Approx. 33%
- ☑ Concentrated Cell Corrosion: To Extent of 10%
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☑ De-alloying: To Extent of 3%
- ☑ Intergranular: To Extent of 3%
- ☑ Stress Corrosion Cracking: Extensive: < 1%
- ☐ Erosion Corrosion: N/A

Cathodic Protection Plates Present? Y ⊙ N ⊙
Sealed Edges: Y ⊙ N ⊙ N/A ⊙
Loose Plates? Y ⊙ N ⊙ N/A ⊙
Missing Plates? Y ⊙ N ⊙ N/A ⊙

Overall Condition: Poor

Additional Notes:
- 100% coating failure
- continuous d-lam & staining

Vent Condition

Vent Type:
Downturn: Y ○ N ⊙ N/A ○

Vent cap condition: Poor
Is the vent covered with screening? Y ⊙ N ○
Type: Medium mesh
Vent screen condition: Fair
Are all openings sealed? Y ○ N ⊙ N/A ○

Coating Condition:

- ☑ Oxidation: Approx. 50%
- ☑ D-lamination: To Extent of 10%
- ☑ Staining: Heavy — Type: Corrosive
- ☐ Blistering: N/A — Type: None
- ☑ Cracking: Moderate — Type: Metal loss
- ☑ Chalking: Heavy
- ☑ Checking: Heavy
- ☐ Pinholes: N/A
- ☐ Saggs and Runs: N/A

Corrosion:

- ☐ None/NA
- ☑ Uniform Surface Corrosion: Approx. 17%
- ☑ Concentrated Cell Corrosion: Approx. 50%
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☑ De-alloying: Approx. 33%
- ☑ Intergranular: Approx. 17%
- ☑ Stress Corrosion Cracking: To Extent of 10%
- ☐ Erosion Corrosion: N/A

Seams/Welds Condition: Poor

Overall Condition: Poor

Additional Notes:
- 8" riser noted
- hatch equipped wit hinge to open (no lock)
- exposed areas around seams and center cap
- swivel ladder attach to lower penetration of vent

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Access Hatch Condition

Hatch Type: Square
Hatch Size: 32" x 32" approx.
Riser Height: 3" approx.
Hatch Locked? Y ○ N ◉
Hinge Condition: Poor
Gasket Present & Intact? Y ○ N ◉
Does hatch have shoe box lid? Y ◉ N ○
Dents/Low Spots/ Holes? Y ◉ N ○
Signs of Day Light? Y ◉ N ○

Coating Condition:

- ☑ Oxidation: Approx. 33%
- ☑ D-lamination: Approx. 17%
- ☑ Staining: Moderate — Type: Corrosive
- ☐ Blistering: N/A — Type: None
- ☑ Cracking: Moderate — Type: Metal loss
- ☑ Chalking: Moderate
- ☑ Checking: Moderate
- ☐ Pinholes: N/A
- ☐ Saggs and Runs: N/A

Corrosion:

- ☑ None/NA
- ☑ Uniform Surface Corrosion: Approx. 17%
- ☑ Concentrated Cell Corrosion: Approx. 33%
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☑ De-alloying: To Extent of 10%
- ☑ Intergranular: To Extent of 3%
- ☑ Stress Corrosion Cracking: Extensive: < 1%
- ☐ Erosion Corrosion: N/A

Seams/Welds Condition: Select the Seams/Weld Condition
Insects, Dirt or Debris Present Under Hatch? Y ◉ N ○
Any irregularities or structural deficiencies? Y ◉ N ○
Description: Excessive d-alloying and missing hinges

Overall Condition: Poor

Additional Notes:
- hinges completely rusted away
- hatch lid set back in-place & secured / single bolt
- no gasket present
- failed coating

Manway Condition

Coating Condition:

- ☑ Oxidation: To Extent of 3%
- ☑ D-lamination: N/A
- ☑ Staining: Moderate — Type: Corrosive
- ☐ Blistering: N/A — Type: None
- ☐ Cracking: N/A — Type: None
- ☑ Chalking: Moderate
- ☑ Checking: Moderate
- ☐ Pinholes: N/A
- ☐ Saggs and Runs: N/A

Davit Arm Condition: N/A
Gasket Condition: Good to Fair
Seam/Welds Condition: Good

Corrosion:

- ☐ None/NA
- ☑ Uniform Surface Corrosion: To Extent of 3%
- ☑ Concentrated Cell Corrosion: To Extent of 3%
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☐ De-alloying: N/A
- ☑ Intergranular: Extensive: < 1%
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: Good

Additional Notes:
- minor signs of deteriorating gaskets
- bio plant growth noted over lower manway
- 2 manways (upper & lower)

☑

Overflow Structure Condition

Coating Condition:

- ☐ Oxidation: N/A
- ☐ D-lamination: N/A
- ☐ Staining: N/A — Type: None
- ☐ Blistering: N/A — Type: None
- ☐ Cracking: N/A — Type: None
- ☐ Chalking: N/A
- ☐ Checking: N/A
- ☐ Pinholes: N/A
- ☐ Saggs and Runs: N/A

Corrosion:

- ☑ None/NA
- ☐ Uniform Surface Corrosion: N/A
- ☐ Concentrated Cell Corrosion: N/A
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☐ De-alloying: N/A
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Seams/Welds Condition: N/A

Stand Off Supports Condition: N/A

Discharge Opening:

- End Cap Sealed Properly? Y ○ N ○ N/A ⊙
- Duckbill Valve Sealed Properly? Y ○ N ○ N/A ⊙
- Flapper Valve Sealed Properly? Y ○ N ○ N/A ⊙
- Screen 24 Mesh? Y ○ N ⊙ If no, size: N/A
- Directly Connected to Sewer or Storm Drain? Y ○ N ⊙
- Any Obstructions of Water Flow? Y ○ N ⊙
- Height Above Ground for Discharge: N/A
- Is Discharge Spot Adequate? Y ○ N ⊙

Overall Condition: N/A

Additional Notes: * Internal only * - see internal ratings

N/A

☑

In Depth CO.

Interior Inspection Report

Roof Condition

Coating Condition:

- ☐ Oxidation: N/A
- ☐ D-lamination: N/A
- ☑ Staining: Minor — Type: Corrosive
- ☐ Blistering: N/A — Type: None
- ☐ Cracking: N/A — Type: None
- ☐ Chalking: N/A
- ☐ Checking: N/A
- ☑ Pinholes: Minor
- ☑ Saggs and Runs: Moderate

Seams/Welds Condition: Excellent to Good

Any irregularities or structural deficiencies? Y ○ N ⊙

Description: None

Corrosion:

- ☐ None/NA
- ☑ Uniform Surface Corrosion: Extensive: < 1%
- ☑ Concentrated Cell Corrosion: Few Isolated: < 0.3%
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☐ De-alloying: N/A
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: Excellent to Good

Additional Notes:

- pr-existing pitting noted throughout
- spatter & over spray noted throughout
- corrosion localized near vent & seams

Ladder Condition

Ladder Location: 12:00

Safety Climb Type: None

Coating Condition:

- ☑ Oxidation: Extensive: < 1%
- ☑ D-lamination: Extensive: < 1%
- ☑ Staining: Moderate — Type: Sediment
- ☐ Blistering: N/A — Type: None
- ☐ Cracking: N/A — Type: None
- ☑ Chalking: Minor
- ☐ Checking: N/A
- ☑ Pinholes: Minor
- ☑ Saggs and Runs: Moderate

Seams/Welds Condition: Good

Corrosion:

- ☐ None/NA
- ☑ Uniform Surface Corrosion: Extensive: < 1%
- ☑ Concentrated Cell Corrosion: Extensive: < 1%
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☑ De-alloying: None, or < 0.01%
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: Good

Additional Notes:

- preexisting pitting noted throughout
- 2 internal ladders noted (equal ratings)
- access hatch & manway

☑

Floor Condition

Coating Condition:

- ☐ Oxidation: N/A
- ☑ D-lamination: To Extent of 3%
- ☑ Staining: Heavy — Type: Sediment
- ☑ Blistering: Minor — Type: Micro
- ☐ Cracking: N/A — Type: None
- ☐ Chalking: N/A
- ☐ Checking: N/A
- ☑ Pinholes: Moderate
- ☑ Saggs and Runs: Heavy

Any identified signs of leaking? Y○ N⊙

Seams/Welds Condition: Good

Sediment depth: 1/2" - 2"

Any irregularities or structural deficiencies? Y○ N⊙

Description: None

Corrosion:

- ☐ None/NA
- ☑ Uniform Surface Corrosion: Few Isolated: < 0.1%
- ☐ Concentrated Cell Corrosion: N/A
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☐ De-alloying: N/A
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: Good

Additional Notes:
- heavy signs of coating over pour noted throughout
- pr-existing pitting noted throughout
- deeper sediment founded around wet riser

Drain Condition

Drain Location: 9:00

Drain Obstructed Y○ N⊙

Coating Condition:

- ☐ Oxidation: N/A
- ☐ D-lamination: N/A
- ☑ Staining: Heavy — Type: Sediment
- ☐ Blistering: N/A — Type: None
- ☐ Cracking: N/A — Type: None
- ☐ Chalking: N/A
- ☐ Checking: N/A
- ☑ Pinholes: Minor
- ☑ Saggs and Runs: Heavy

Seams/Welds Condition: Good

Corrosion:

- ☐ None/NA
- ☐ Uniform Surface Corrosion: N/A
- ☑ Concentrated Cell Corrosion: Extensive: < 1%
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☐ De-alloying: N/A
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: Excellent to Good

Additional Notes:
- internally plugged
- penetrate through lower floor
- no signs of leaking

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Wall Panel Condition

Coating Condition:

- ☐ Oxidation: N/A
- ☐ D-lamination: N/A
- ☑ Staining: Heavy — Type: Sediment
- ☑ Blistering: Minor — Type: Micro
- ☐ Cracking: N/A — Type: None
- ☐ Chalking: N/A
- ☐ Checking: N/A
- ☑ Pinholes: Minor
- ☑ Saggs and Runs: Moderate

Seams/Welds Condition: Excellent to Good

Is biofilm present? Y⊙ N○

Any irregularities or structural deficiencies? Y○ N⊙

Description: None

Corrosion:

- ☑ None/NA
- ☐ Uniform Surface Corrosion: N/A
- ☐ Concentrated Cell Corrosion: N/A
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☐ De-alloying: N/A
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: Good

Additional Notes:

- spatter & over spray noted throughout
- pr-existing pitting noted
- heavy staining noted on upper walls
- bio-film / sediment noted on lower walls

Float Level Indicator Condition

Float Location: N/A

Float Condition: N/A

Float Sealed? Y○ N⊙

Guidelines Condition: N/A

Attached Properly? Y○ N⊙

Cable Condition: N/A

Attached Properly? Y○ N⊙

Hardware Condition: N/A

Coating Condition: N/A

Corrosion:

- ☐ None/NA
- ☐ Uniform Surface Corrosion: N/A
- ☐ Concentrated Cell Corrosion: N/A
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☐ De-alloying: N/A
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: N/A

Additional Notes: * None noted*

N/A

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Inlet Condition

Common Inlet/Outlet? Y ⊙ N ○
Location: Center floor
Trash Rack Present? Y ⊙ N ○

Coating Condition:

- ☑ Oxidation: Extensive: < 1%
- ☐ D-lamination: N/A
- ☑ Staining: Minor — Type: Sediment
- ☑ Blistering: Minor — Type: Micro
- ☐ Cracking: N/A — Type: None
- ☐ Chalking: N/A
- ☐ Checking: N/A
- ☑ Pinholes: Minor
- ☑ Saggs and Runs: Heavy

Seams/Welds Condition: Good

Corrosion:

- ☐ None/NA
- ☑ Uniform Surface Corrosion: Extensive: < 1%
- ☑ Concentrated Cell Corrosion: Few Isolated: < 0.1%
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☐ De-alloying: N/A
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: Good

Additional Notes:
- trash rack loosely in place
- 6" riser penetrating through floor
- heavy coating over pour
- pr-existing coating noted

Outlet Condition

Location: Center floor
Trash Rack Present? Y ○ N ⊙

Coating Condition:

- ☐ Oxidation: N/A
- ☐ D-lamination: N/A
- ☐ Staining: N/A — Type: None
- ☐ Blistering: N/A — Type: None
- ☐ Cracking: N/A — Type: None
- ☐ Chalking: N/A
- ☐ Checking: N/A
- ☐ Pinholes: N/A
- ☐ Saggs and Runs: N/A

Seams/Welds Condition: N/A

Corrosion:

- ☑ None/NA
- ☐ Uniform Surface Corrosion: N/A
- ☐ Concentrated Cell Corrosion: N/A
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☐ De-alloying: N/A
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: N/A

Additional Notes: * common Inlet / Outlet *

N/A

☑

Dry Riser Condition

Stand-Off / Supports Present? Y○ N⊙

Coating Condition:

- ☐ Oxidation: N/A
- ☐ D-lamination: N/A
- ☐ Staining: N/A — Type: None
- ☐ Blistering: N/A — Type: None
- ☐ Cracking: N/A — Type: None
- ☐ Chalking: N/A
- ☐ Checking: N/A
- ☐ Pinholes: N/A
- ☐ Saggs and Runs: N/A

Seams/Welds Condition: N/A

Any irregularities or structural deficiencies? Y○ N⊙

Description: N/A

Corrosion:

- ☑ None/NA
- ☐ Uniform Surface Corrosion: N/A
- ☐ Concentrated Cell Corrosion: N/A
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☐ De-alloying: N/A
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: N/A

Additional Notes: * none noted *

N/A

Overflow Condition

Overflow Location: Center

Coating Condition:

- ☑ Oxidation: Extensive: < 1%
- ☑ D-lamination: To Extent of 3%
- ☑ Staining: Heavy — Type: Sediment
- ☑ Blistering: Minor — Type: Micro
- ☐ Cracking: N/A — Type: None
- ☐ Chalking: N/A
- ☐ Checking: N/A
- ☑ Pinholes: Minor
- ☑ Saggs and Runs: Heavy

Seams/Welds Condition: Good

Is anything blocking the flow? Y○ N⊙

Description: N/A

Corrosion:

- ☐ None/NA
- ☑ Uniform Surface Corrosion: Extensive: < 1%
- ☑ Concentrated Cell Corrosion: Extensive: < 1%
- ☑ Rust Noduling/Pitting: Extensive: < 1% — Depth: 1/16"
- ☐ Galvanic: N/A
- ☑ De-alloying: Few Isolated: < 0.3%
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☑ Erosion Corrosion: Extensive: < 1%

Overall Condition: Good

Additional Notes:

- 3 upper stand off supports into roof
- pr-existing pitting noted
- penetrates down center floor into wet riser
- mid water corrosion noted
- d-alloying noted around opening

☑

Manway Condition

Manway Location: 6:00

Coating Condition:

- ☐ Oxidation: N/A
- ☐ D-lamination: N/A
- ☑ Staining: Minor — Type: Sediment
- ☑ Blistering: Minor — Type: Micro
- ☐ Cracking: N/A — Type: None
- ☑ Chalking: Minor
- ☐ Checking: N/A
- ☑ Pinholes: Minor
- ☑ Saggs and Runs: Minor

Seal: Bolted◉ Pressurized○ N/A○

Gasket Condition: Good

Seam/Welds Condition: Good

Corrosion:

- ☐ None/NA
- ☑ Uniform Surface Corrosion: Few Isolated: < 0.1%
- ☐ Concentrated Cell Corrosion: N/A
- ☐ Rust Noduling/Pitting: N/A — Depth: N/A
- ☐ Galvanic: N/A
- ☐ De-alloying: N/A
- ☐ Intergranular: N/A
- ☐ Stress Corrosion Cracking: N/A
- ☐ Erosion Corrosion: N/A

Overall Condition: Good

Additional Notes:
- manway equipped with ladder
- minor signs of deterioration noted on gasket
- spatter noted on welds

Additional Pictures

Roof

Plaque

Overflow

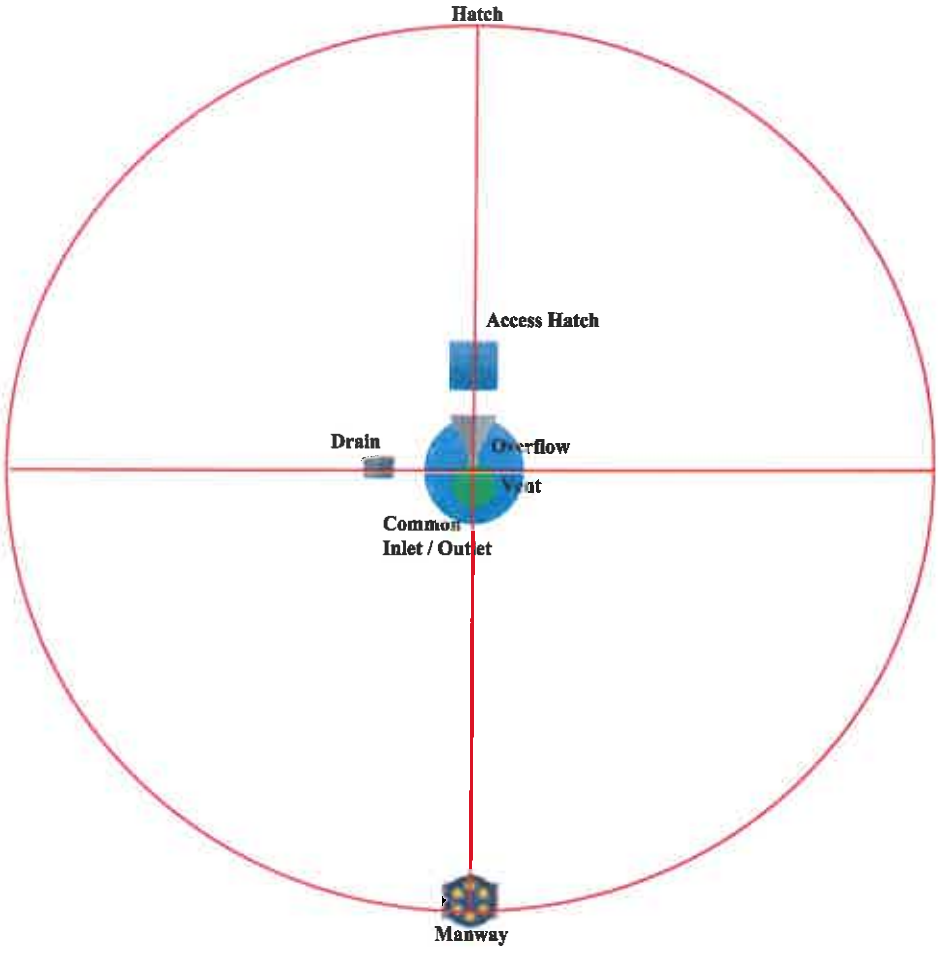
Bowl

☑

Tank Layout

Quadrant #4

Quadrant #1



Quadrant #3

Quadrant #2

☑

LIQUID ENGINEERING CORPORATION

Tank Inspection Report

Town of Eatonville

Tank No. 1
Liquid Engineering Corporation 48491

Tank Name:	Tank No. 1	Tank Type:	On-grade
City:	Eatonville	Tank Capacity:	200KG
State:	FL	Type of Construction:	Concrete
Built By:	Crom Corporation	Year Built:	Unknown

Cleaned and Inspected By: LEC Maintenance Team 12 – Team Leader Robert Heaton
Project Date: April 18th, 2015

GENERAL

This report is a supplement to the visual and video inspection undertaken for the Town of Eatonville by Liquid Engineering Corporation of Billings, MT. Tank No. 1 is an on-grade concrete storage tank. The tank has a 200,000-gallon capacity, an overall height of 32' and is approximately 32' in diameter.

STANDARDS

The inspection of this tank was performed by a dive maintenance technician using surface supplied air, totally encapsulated in a sealed dry suit mated to a sealed dry divers hard hat and conducted in accordance with all applicable OSHA, EPA, AWWA, NACE, SSPC and ADC requirements and/or recommendations.

The inspection consisted of a visual observation of the tank's interior and exterior components and coating system. The tank was not drained for the inspection and all interior assessment data was recorded using real time video with live voice narration. Exterior assessment data was documented using digital still photographs.

CONDITION OBSERVATIONS

Conditions noted during the field inspection are documented in the following pages and are supplemented with color photographs at the end of the report. Condition ratings used to describe the inspection findings are annotated as follows:

Excellent:	No deficiencies noted.
Good:	Minor deficiencies noted. Item is functioning as designed.
Fair:	Major deficiencies noted. Item is in need of repairs to continue functioning as designed.
Poor:	Repair or replacement required immediately. Item may no longer function as designed.

CONTAMINATION, HEALTH & SAFETY REPORT

Contamination and Health

- **Air Vents and Screens** – The tank is equipped with an aeration unit and three integrated vents that also act as overflows. Each appears to be in good condition, but the screen on at least one of the integrated vents has failed and none of the vents are equipped with vent security shrouds. Absence of a Vent Security Shroud can allow the intentional introduction of hazardous chemical or biological contaminates. *(See Summary for Recommendations)*
- **Hatches** – The square access hatch is properly sealed and secured.
- **Overflow** – As noted above, the integrated vent / overflow structures are in good condition.
- **Manway** – The manway is appears to be properly sealed and in good condition.
- **Roof to Wall Joint** – This joint is properly sealed and in good condition.
- **Roof / Wall Integrity** – No holes or standing water are present on the roof or walls, but minor cracking is noted in both locations.
- **Water Clarity** – The water is slightly cloudy, but no odor or surface debris is noted.

Facility Safety Compliance

- **External Ladder** – The exterior ladder measures 30' high and is in good condition overall. There are no missing or damaged rungs, but it is not equipped with a locking vandal guard.
- **Rail & Rungs** – The rungs are spaced at 12" and have a 9" toe depth. The rails are 2" in width and thickness, and the rail to rail span is 20".
- **Safety Climb** – The tank is equipped with a rail style fall protection system. All components are securely attached and it appears to be safe for use.
- **Hatch** – The primary access way measures approximately 33" square. The hatch lip is 6" and the overlap is 2".
- **Manway** – The manway measures 30" x 18". It has a bolted support and appears to be in good condition.

INTERIOR RESERVOIR INSPECTION REPORT

Interior Reservoir Roof

- **Vents** – The interior portion of each of the vent / overflow structures appears to be in good condition.
- **Roof Slabs** – Staining, cracking and spotty corrosion are noted in each quadrant.
- **Hatch** – The interior portion of the access hatch is in also good condition.
- **Coating** – The coating on the roof exhibits staining and corrosion bleed, as well as isolated delamination in Quadrant 2, but is in satisfactory condition overall.

Interior Reservoir Walls

- **Wall to Roof Joint** – The roof to wall joint is properly sealed and in good condition. Cosmetic staining and cracking with efflorescence are present in each Quadrant. Efflorescence is simply mineral material leaching through the concrete; it will not affect the quality of the water within the reservoir.
- **Wall Structure** – The wall structure is also in good condition overall. As is the case with the joint, staining and cracking with efflorescence are reported.
- **Baffle Wall** – The tank is equipped with a single cinder block baffle wall. In addition to staining, there are several areas below the injector line ports that exhibit erosion of up to 3".
- **Ladder Structure** – The interior ladder is also in fair condition. The uppermost anchor points are no longer attached and the fall protection rail is broken above the water line and heavily corroded below. It should not be used to access the tank when drained.
- **Leaking** – No indications of leaking are present from the wall areas.

Interior Reservoir Floor

- **Perimeter Joint** – The curved joint shows staining from the mineral content in the water, but is otherwise in very good condition.
- **Floor Slabs** – Prior to beginning the inspection, the accumulated sediment was removed from the floor allowing for a full evaluation of the slabs. The sediment varied in depth from ¼" around the perimeter to nearly 4 ½" at the center of the tank. Aside from moderate to heavy staining, no irregularities are present. The inspector also removed several pieces of concrete that spalled away from one of the integrated vents.
- **Leaking** – No signs of leaking are noted from the floor areas.

Interior Reservoir Plumbing Components

- **Inlet Structure** – The inlet structure is located in Quadrant 1. It consists of a 14" floor penetration that rises through the roof and into the aeration unit. The water is returned to the water column through two roof penetrations. Heavy corrosion is present, mainly below the water line, but the inlet actively filled the reservoir during the inspection and appears to be operating as designed. The inspector also notes coating delamination on the upper portion of the structure.
- **Outlet Structure** – The outlet is also positioned in Quadrant 1. The 16" component penetrates the floor of the tank and has a rise of 12". Moderate staining and minor corrosion are noted, but it appears to be in good working order.
- **Manway** – The manway penetrates the lower wall of the reservoir in Quadrant 1 and is in fair condition. Moderate corrosion is present and the gasket material, while intact, exhibits signs of deterioration.
- **Overflow** – The integrated overflow / vent structures are positioned near the roof to wall joint in Quadrants 1, 3 and 4. They measure 22" wide and are 16" high. Each appears to be in good condition, but as previously noted, at least one of the screens has failed.
- **Drain** – There is a single 8" floor drain located near the 7 o'clock position. Light staining is present, but it is otherwise in good condition.
- **Injector** – There is a chemical injector line that penetrates the lower wall. The 3" penetration reduces to a 2" PVC which is attached to the baffle wall. Aside from moderate staining, it appears to be in good condition.
- **Leaking** – No leaking is detected from any of the plumbing components.

EXTERIOR RESERVOIR INSPECTION REPORT

Exterior Reservoir Roof

- **Roof** – In addition to staining, which is present in each quadrant, cracking and exposed reinforcement are noted in Quadrant 2, 3 and 4.
- **Vents** – As noted above, the vent structures and aeration unit appear to be in good condition.
- **Roof Hatch** – Aside from minor cracking of the concrete, the primary access hatch, lock and hasp and hinges are in good condition. It is equipped with a gasket which is intact and remains pliable.
- **Coating** – The exterior coating appears to be in good condition overall with organic staining noted throughout.

Exterior Reservoir Walls

- **Roof to Wall Joint** – The joint also shows staining, cracking with efflorescence and growth, but is otherwise in good condition.
- **Wall Structure** – The wall structure is in similar condition. Cracking with efflorescence, staining and growth are noted in each quadrant.
- **Access Ladder** – The primary access ladder and hardware appear to be securely attached and safe for use.
- **Coating** – The exterior paint on the walls also exhibits minor staining.

Foundation

- **General appearance** – The footing / foundation is buried and could not be evaluated, but no indications of leaking or ground subsidence are present.

GENERAL TANK SECURITY

Security

- **Perimeter** – The area surrounding the tank is well lit to deter vandalism.
- **Fencing** – The tank is surrounded by a security fence which was locked upon the crew's arrival.
- **Ladder** – The access ladder is not equipped with a proper vandal guard.
- **Vent** - The vents are not equipped with vent security shrouds to prevent the intentional introduction of chemical or biological contaminates. This presents significant water tank security vulnerability and should be addressed as a priority. To the best of LEC's knowledge the only known practical and cost-effective security solution is the Omega Vent Security Shroud, evaluated by the EPA and found on its website. Unless you request otherwise, LEC will have ARC^3's Omega Vent Security Shroud manufacturer contact you in order to provide detailed information to assist you in addressing this security vulnerability.
- **Hatch** – The hatch location is equipped with a lock and an electronic monitoring device.

SUMMARY

The **INTERIOR** of the tank appears to be in good condition overall. Recommendations include:

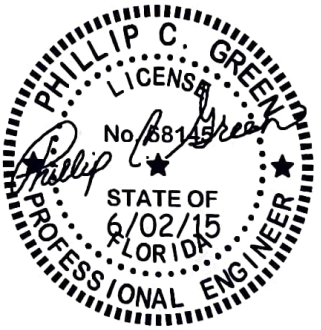
- Monitor the levels of corrosion on the interior roof slabs.
- When the reservoir is next taken out of service, the manway and gasket should be replaced, and the interior ladder should be repaired.
- Monitor the areas of erosion on the baffle wall below the injector line ports.

The tank **EXTERIOR** of the reservoir also appears to be in good condition. Recommendations follow:

- **The compromised vent screen(s) should be immediately replaced to prevent the areas from becoming a point of ingress for insects, birds or other contaminants.**
- Installation of a vent security shroud is recommended for the vents. *See "Security" section above for details.*
- The areas of exposed reinforcement with corrosion on the exterior roof should be prepped and repaired appropriately. In addition, the tank should be power-washed to improve aesthetics and extend the life of the coating.
- In an effort to limit access to the roof and hatch areas, a locking vandal guard should be installed on the exterior ladder.

At a minimum, the utility should continue to clean and inspect this tank every three years. Preventive maintenance of this nature will ensure that the identified discrepancies in this tank are closely monitored and will provide a record of care in the future.

(As a disinterested third-party inspector, LEC does not engage in the construction or rehabilitation of potable water storage facilities. LEC will, in its commitment to our clients and upon request, identify to the client relevant entities that are professionally reliable and best capable of completing the recommended work, or assist the client in research tips that will enable them to make a decision that best serves the utility.)



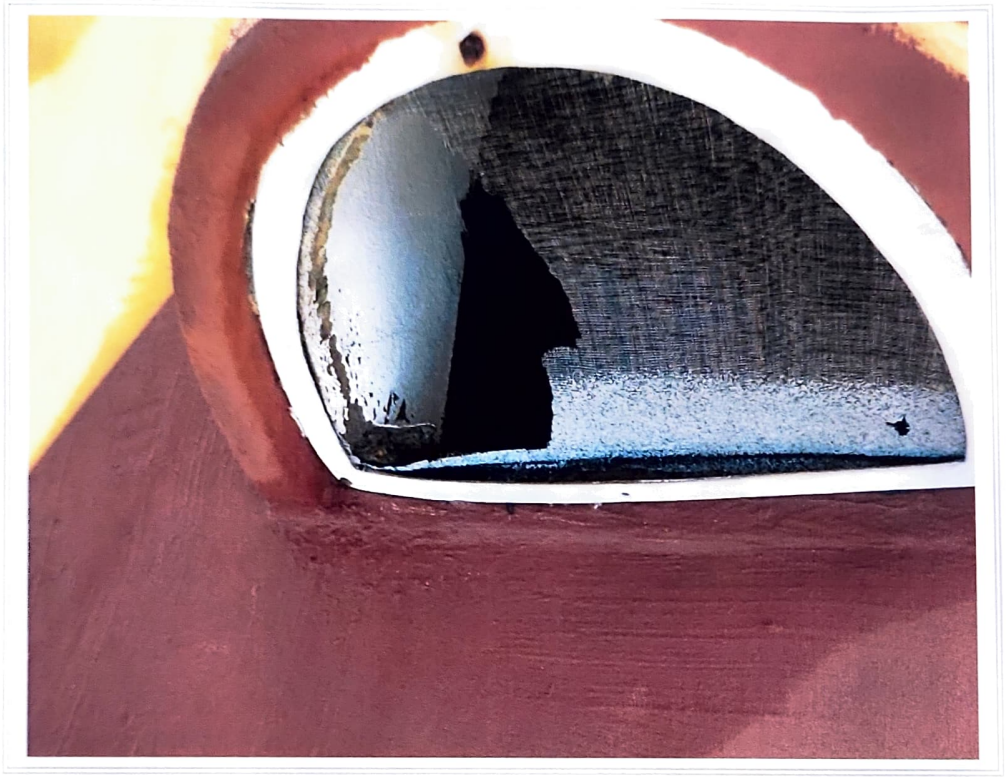
APPENDIX A

Photographs

Primary Access Ladder (note lack of vandal guard)

Primary Access Hatch (note cracking)

Failed Vent Screen

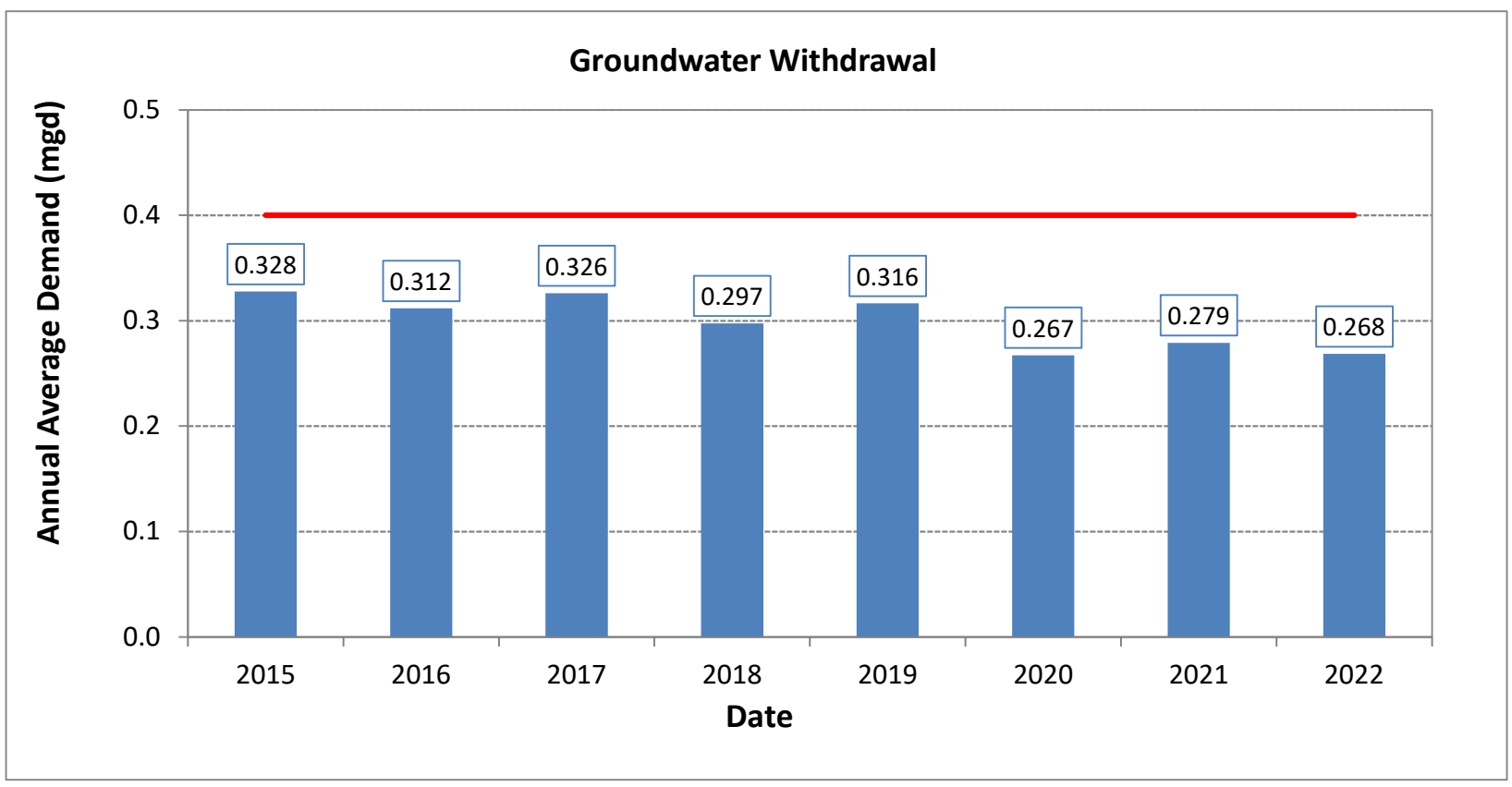


Staining and Cracking with Efflorescence on Exterior Wall

APPENDIX E: Growth Projections

	A	B	C	D	E	F	G	H
1	EN-50 Verified Values		WTP No. 1					
2			Well No. 3	Well No. 4	Total	Average Day Demand	CUP Limit	% CUP Capacity
3			38634	38635				
4		Date			(gallons)	(MGD)	(MGD)	(%)
5	2015	Jan-15	4,774,500	4,774,500	**9,549,000**	**0.308**	**0.4**	**77%**
6		Feb-15	4,134,500	4,134,500	**8,269,000**	**0.295**	**0.4**	**74%**
7		Mar-15	4,863,000	4,863,000	**9,726,000**	**0.314**	**0.4**	**78%**
8		Apr-15	4,610,500	4,610,500	**9,221,000**	**0.307**	**0.4**	**77%**
9		May-15	5,357,500	5,357,500	**10,715,000**	**0.346**	**0.4**	**86%**
10		Jun-15	5,462,500	5,462,500	**10,925,000**	**0.364**	**0.4**	**91%**
11		Jul-15	6,181,450	6,181,450	**12,362,900**	**0.399**	**0.4**	**100%**
12		Aug-15	5,432,000	5,432,000	**10,864,000**	**0.350**	**0.4**	**88%**
13		Sep-15	4,747,500	4,747,500	**9,495,000**	**0.317**	**0.4**	**79%**
14		Oct-15	4,919,000	4,919,000	**9,838,000**	**0.317**	**0.4**	**79%**
15		Nov-15	4,641,000	4,641,000	**9,282,000**	**0.309**	**0.4**	**77%**
16		Dec-15	4,649,000	4,649,000	**9,298,000**	**0.300**	**0.4**	**75%**
17	2016	Jan-16	4,382,050	4,382,050	**8,764,100**	**0.283**	**0.4**	**71%**
18		Feb-16	5,461,750	5,461,750	**10,923,500**	**0.377**	**0.4**	**94%**
19		Mar-16	5,293,795	5,293,795	**10,587,590**	**0.342**	**0.4**	**85%**
20		Apr-16	4,708,500	4,708,500	**9,417,000**	**0.314**	**0.4**	**78%**
21		May-16	4,580,450	4,580,450	**9,160,900**	**0.296**	**0.4**	**74%**
22		Jun-16	4,274,000	4,274,000	**8,548,000**	**0.285**	**0.4**	**71%**
23		Jul-16	4,965,000	4,965,000	**9,930,000**	**0.320**	**0.4**	**80%**
24		Aug-16	4,571,000	4,571,000	**9,142,000**	**0.295**	**0.4**	**74%**
25		Sep-16	4,869,500	4,869,500	**9,739,000**	**0.325**	**0.4**	**81%**
26		Oct-16	4,767,500	4,767,500	**9,535,000**	**0.308**	**0.4**	**77%**
27		Nov-16	4,210,000	4,210,000	**8,420,000**	**0.281**	**0.4**	**70%**
28		Dec-16	4,929,000	4,929,000	**9,858,000**	**0.318**	**0.4**	**80%**
29	2017	Jan-17	4,573,000	4,573,000	**9,146,000**	**0.295**	**0.4**	**74%**
30		Feb-17	6,888,000	6,888,000	**13,776,000**	**0.492**	**0.4**	**123%**
31		Mar-17	5,276,000	5,276,000	**10,552,000**	**0.340**	**0.4**	**85%**
32		Apr-17	5,358,500	5,358,500	**10,717,000**	**0.357**	**0.4**	**89%**
33		May-17	6,011,000	6,011,000	**12,022,000**	**0.388**	**0.4**	**97%**
34		Jun-17	5,254,500	5,254,500	**10,509,000**	**0.350**	**0.4**	**88%**
35		Jul-17	5,197,000	5,197,000	**10,394,000**	**0.335**	**0.4**	**84%**
36		Aug-17	4,548,300	4,548,300	**9,096,600**	**0.293**	**0.4**	**73%**
37		Sep-17	4,181,500	4,181,500	**8,363,000**	**0.279**	**0.4**	**70%**
38		Oct-17	4,131,500	4,131,500	**8,263,000**	**0.267**	**0.4**	**67%**
39		Nov-17	4,205,000	4,204,000	**8,409,000**	**0.280**	**0.4**	**70%**
40		Dec-17	3,862,850	3,862,850	**7,725,700**	**0.249**	**0.4**	**62%**
41	2018	Jan-18	4,170,000	4,170,000	**8,340,000**	**0.269**	**0.4**	**67%**
42		Feb-18	3,739,000	3,739,000	**7,478,000**	**0.267**	**0.4**	**67%**
43		Mar-18	4,283,500	4,283,500	**8,567,000**	**0.276**	**0.4**	**69%**
44		Apr-18	4,468,000	4,468,000	**8,936,000**	**0.298**	**0.4**	**74%**
45		May-18	4,786,500	4,786,500	**9,573,000**	**0.309**	**0.4**	**77%**
46		Jun-18	4,591,000	4,591,000	**9,182,000**	**0.306**	**0.4**	**77%**
47		Jul-18	5,135,500	5,135,500	**10,271,000**	**0.331**	**0.4**	**83%**
48		Aug-18	5,021,000	5,021,000	**10,042,000**	**0.324**	**0.4**	**81%**
49		Sep-18	2,776,300	2,776,300	**5,552,600**	**0.185**	**0.4**	**46%**
50		Oct-18	4,908,500	4,908,500	**9,817,000**	**0.317**	**0.4**	**79%**
51		Nov-18	4,816,000	4,816,000	**9,632,000**	**0.321**	**0.4**	**80%**
52		Dec-18	5,575,000	5,575,000	**11,150,000**	**0.360**	**0.4**	**90%**
53	2019	Jan-19	4,955,000	4,955,000	**9,910,000**	**0.320**	**0.4**	**80%**
54		Feb-19	4,043,850	4,043,850	**8,087,700**	**0.289**	**0.4**	**72%**
55		Mar-19	4,252,500	4,252,500	**8,505,000**	**0.274**	**0.4**	**69%**
56		Apr-19	4,289,000	4,289,000	**8,578,000**	**0.286**	**0.4**	**71%**
57		May-19	5,960,800	5,960,800	**11,921,600**	**0.385**	**0.4**	**96%**
58		Jun-19	5,830,000	5,830,000	**11,660,000**	**0.389**	**0.4**	**97%**
59		Jul-19	6,040,500	6,040,500	**12,081,000**	**0.390**	**0.4**	**97%**
60		Aug-19	5,274,432	5,274,432	**10,548,864**	**0.340**	**0.4**	**85%**
61		Sep-19	4,482,000	4,482,000	**8,964,000**	**0.299**	**0.4**	**75%**
62		Oct-19	5,231,000	5,231,000	**10,462,000**	**0.337**	**0.4**	**84%**
63		Nov-19	4,975,000	4,975,000	**9,950,000**	**0.332**	**0.4**	**83%**
64		Dec-19	2,403,150	2,403,150	**4,806,300**	**0.155**	**0.4**	**39%**
65	2020	Jan-20	2,769,500	2,769,500	**5,539,000**	**0.179**	**0.4**	**45%**
66		Feb-20	3,673,550	3,673,550	**7,347,100**	**0.253**	**0.4**	**63%**
67		Mar-20	4,436,500	4,436,500	**8,873,000**	**0.286**	**0.4**	**72%**
68		Apr-20	4,367,500	4,367,500	**8,735,000**	**0.291**	**0.4**	**73%**
69		May-20	4,470,000	4,470,000	**8,940,000**	**0.288**	**0.4**	**72%**
70		Jun-20	3,685,500	3,685,500	**7,371,000**	**0.246**	**0.4**	**61%**
71		Jul-20	4,589,500	4,589,500	**9,179,000**	**0.296**	**0.4**	**74%**
72		Aug-20	4,730,750	4,730,750	**9,461,500**	**0.305**	**0.4**	**76%**
73		Sep-20	3,704,000	3,704,000	**7,408,000**	**0.247**	**0.4**	**62%**
74		Oct-20	4,958,700	4,958,700	**9,917,400**	**0.320**	**0.4**	**80%**
75		Nov-20	3,652,500	3,652,500	**7,305,000**	**0.244**	**0.4**	**61%**
76		Dec-20	3,850,000	3,850,000	**7,700,000**	**0.248**	**0.4**	**62%**
77	2021	Jan-21	4,325,250	4,325,250	**8,650,500**	**0.279**	**0.4**	**70%**
78		Feb-21	3,480,750	3,480,750	**6,961,500**	**0.249**	**0.4**	**62%**
79		Mar-21	4,021,500	4,021,500	**8,043,000**	**0.259**	**0.4**	**65%**
80		Apr-21	3,840,500	3,840,500	**7,681,000**	**0.256**	**0.4**	**64%**
81		May-21	4,646,350	4,646,350	**9,292,700**	**0.300**	**0.4**	**75%**
82		Jun-21	4,439,000	4,439,000	**8,878,000**	**0.296**	**0.4**	**74%**
83		Jul-21	4,247,000	4,247,000	**8,494,000**	**0.274**	**0.4**	**69%**
84		Aug-21	6,783,500	6,783,500	**13,567,000**	**0.438**	**0.4**	**109%**
85		Sep-21	3,572,500	3,572,500	**7,145,000**	**0.238**	**0.4**	**60%**
86		Oct-21	3,985,500	3,985,500	**7,971,000**	**0.257**	**0.4**	**64%**
87		Nov-21	3,548,000	3,548,000	**7,096,000**	**0.237**	**0.4**	**59%**
88		Dec-21	4,011,500	4,011,500	**8,023,000**	**0.259**	**0.4**	**65%**
89	2022	Jan-22	3,427,500	3,427,500	**6,855,000**	**0.221**	**0.4**	**55%**
90		Feb-22	3,306,000	3,306,000	**6,612,000**	**0.236**	**0.4**	**59%**
91		Mar-22	3,700,000	3,700,000	**7,400,000**	**0.239**	**0.4**	**60%**
92		Apr-22	3,718,000	3,718,000	**7,436,000**	**0.248**	**0.4**	**62%**
93		May-22	4,299,000	4,299,000	**8,598,000**	**0.277**	**0.4**	**69%**
94		Jun-22	4,201,500	4,201,500	**8,403,000**	**0.280**	**0.4**	**70%**
95		Jul-22	5,210,250	5,210,250	**10,420,500**	**0.336**	**0.4**	**84%**
96		Aug-22	4,329,500	4,329,500	**8,659,000**	**0.279**	**0.4**	**70%**
97		Sep-22	4,512,000	4,512,000	**9,024,000**	**0.301**	**0.4**	**75%**
98		Oct-22	4,243,500	4,243,500	**8,487,000**	**0.274**	**0.4**	**68%**
99		Nov-22	4,035,043	4,035,043	**8,070,086**	**0.269**	**0.4**	**67%**
100		Dec-22	4,012,500	4,012,500	**8,025,000**	**0.259**	**0.4**	**65%**
101		Jan-23						
102								
103		Source:	SJRWMD Reports					

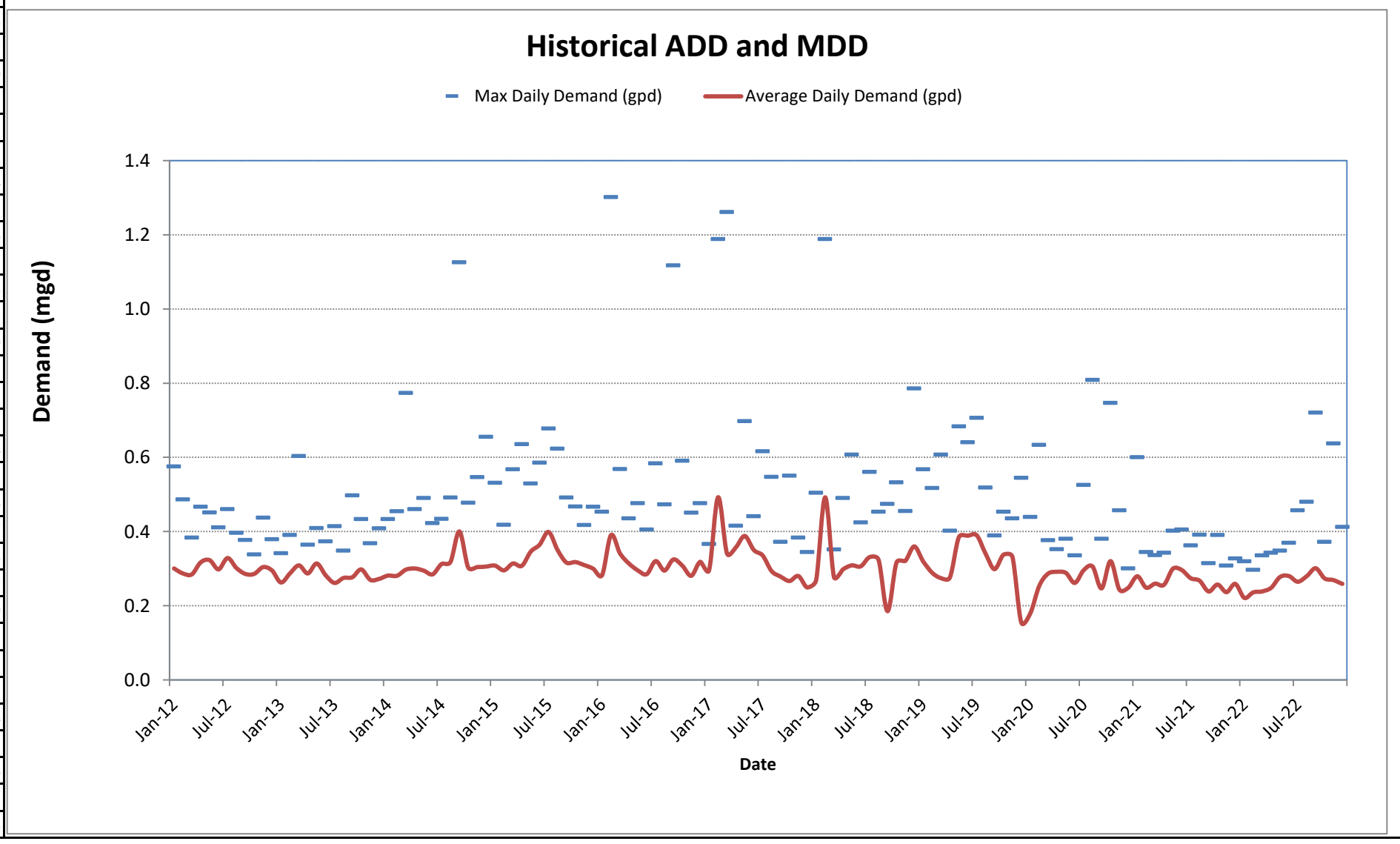
	A	B	C	D	E	F	G	H
1	Parameter		WTP No. 1		TOTAL		CUP Allocations	
2			Well No. 3	Well No. 4	Annual Average Daily Demand	Peak Month	Annual Average Daily Limit	Annual Average Daily Limit
3		Year	(mgd)	(mgd)	(mgd)	(mgd)	(mgd)	(%)
4		Average (5-yr) 2018-2022	0.143	0.143	0.286	0.381	0.400	71%
5		Percent	50%	50%	100%			
6		2015	0.164	0.164	0.328	0.412	*0.400*	*82%*
7		2016	0.156	0.156	0.312	0.364	*0.400*	*78%*
8		2017	0.163	0.163	0.326	0.459	*0.400*	*81%*
9		2018	0.149	0.149	0.297	0.372	*0.400*	*74%*
10		2019	0.158	0.158	0.316	0.403	*0.400*	*79%*
11		2020	0.134	0.134	0.267	0.331	*0.400*	*67%*
12		2021	0.139	0.139	0.279	0.452	*0.400*	*70%*
13		2022	0.134	0.134	0.268	0.347	*0.400*	*67%*



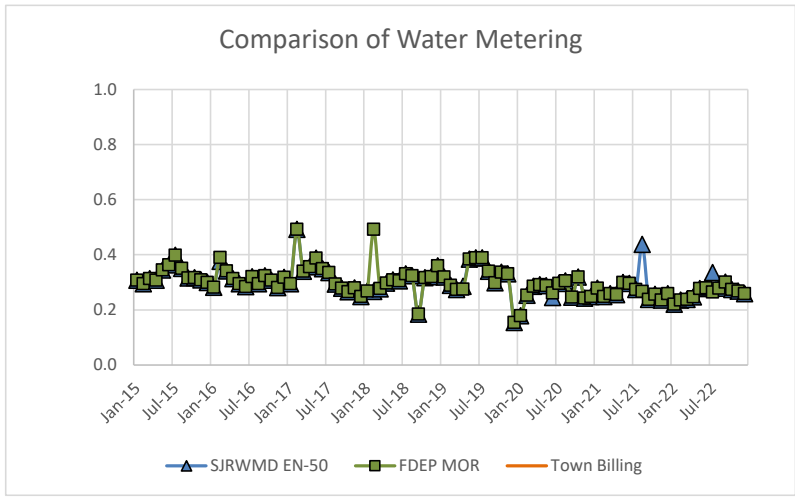
	A	B	C	D	E	F	G
1	PARAMETER	WTP No. 1					
2	Date						
3	(Month-Year)	Average Daily Demand (gpd)	Max Daily Demand (gpd)	MDD/ADD Peaking Factor	*Rated Max Day Design Capacity*	% Max Day Design Capacity	Comments
4	Column1	Column2	Column3	Column4	Column5	Column6	Column7
5	Jan-12	300,161	575,000	1.92	*1,440,000*	40%	
6	Feb-12	287,207	486,000	1.69	*1,440,000*	34%	
7	Mar-12	284,419	383,000	1.35	*1,440,000*	27%	
8	Apr-12	317,333	466,000	1.47	*1,440,000*	32%	
9	May-12	322,548	451,000	1.40	*1,440,000*	31%	
10	Jun-12	298,133	411,000	1.38	*1,440,000*	29%	
11	Jul-12	328,710	460,000	1.40	*1,440,000*	32%	
12	Aug-12	301,677	396,000	1.31	*1,440,000*	28%	
13	Sep-12	285,567	377,000	1.32	*1,440,000*	26%	
14	Oct-12	285,774	338,000	1.18	*1,440,000*	23%	
15	Nov-12	304,067	437,000	1.44	*1,440,000*	30%	
16	Dec-12	294,675	379,000	1.29	*1,440,000*	26%	
17	Jan-13	262,387	341,000	1.30	*1,440,000*	24%	
18	Feb-13	287,143	390,000	1.36	*1,440,000*	27%	
19	Mar-13	308,871	603,000	1.95	*1,440,000*	42%	
20	Apr-13	287,033	364,000	1.27	*1,440,000*	25%	
21	May-13	314,000	409,000	1.30	*1,440,000*	28%	
22	Jun-13	282,567	373,000	1.32	*1,440,000*	26%	
23	Jul-13	261,581	414,000	1.58	*1,440,000*	29%	
24	Aug-13	274,935	348,000	1.27	*1,440,000*	24%	
25	Sep-13	276,900	497,000	1.79	*1,440,000*	35%	
26	Oct-13	297,871	433,000	1.45	*1,440,000*	30%	
27	Nov-13	269,667	368,000	1.36	*1,440,000*	26%	
28	Dec-13	272,323	408,000	1.50	*1,440,000*	28%	
29	Jan-14	281,194	433,000	1.54	*1,440,000*	30%	
30	Feb-14	280,571	454,000	1.62	*1,440,000*	32%	
31	Mar-14	297,226	773,000	2.60	*1,440,000*	54%	
32	Apr-14	300,100	460,000	1.53	*1,440,000*	32%	
33	May-14	294,645	490,000	1.66	*1,440,000*	34%	
34	Jun-14	284,700	422,000	1.48	*1,440,000*	29%	
35	Jul-14	312,484	434,000	1.39	*1,440,000*	30%	
36	Aug-14	317,571	491,000	1.55	*1,440,000*	34%	
37	Sep-14	399,933	1,125,000	2.81	*1,440,000*	78%	
38	Oct-14	302,745	477,000	1.58	*1,440,000*	33%	
39	Nov-14	303,933	546,000	1.80	*1,440,000*	38%	
40	Dec-14	305,484	655,000	2.14	*1,440,000*	45%	
41	Jan-15	308,032	531,000	1.72	*1,440,000*	37%	
42	Feb-15	295,321	418,000	1.42	*1,440,000*	29%	
43	Mar-15	313,742	567,000	1.81	*1,440,000*	39%	
44	Apr-15	307,367	635,000	2.07	*1,440,000*	44%	
45	May-15	345,645	529,000	1.53	*1,440,000*	37%	
46	Jun-15	364,167	585,000	1.61	*1,440,000*	41%	
47	Jul-15	398,803	677,000	1.70	*1,440,000*	47%	
48	Aug-15	350,452	623,000	1.78	*1,440,000*	43%	
49	Sep-15	316,500	491,000	1.55	*1,440,000*	34%	
50	Oct-15	317,355	467,000	1.47	*1,440,000*	32%	
51	Nov-15	309,400	417,000	1.35	*1,440,000*	29%	
52	Dec-15	299,935	466,000	1.55	*1,440,000*	32%	
53	Jan-16	282,713	453,000	1.60	*1,440,000*	31%	
54	Feb-16	390,125	1,301,000	3.33	*1,440,000*	90%	WM Break
55	Mar-16	341,535	568,000	1.66	*1,440,000*	39%	
56	Apr-16	313,900	435,000	1.39	*1,440,000*	30%	
57	May-16	295,513	476,000	1.61	*1,440,000*	33%	
58	Jun-16	284,933	405,000	1.42	*1,440,000*	28%	
59	Jul-16	320,323	583,000	1.82	*1,440,000*	40%	
60	Aug-16	294,903	473,000	1.60	*1,440,000*	33%	
61	Sep-16	324,633	1,117,000	3.44	*1,440,000*	78%	
62	Oct-16	307,581	590,000	1.92	*1,440,000*	41%	
63	Nov-16	280,667	450,000	1.60	*1,440,000*	31%	
64	Dec-16	318,000	476,000	1.50	*1,440,000*	33%	
65	Jan-17	295,032	366,000	1.24	*1,440,000*	25%	
66	Feb-17	492,000	1,188,000	2.41	*1,440,000*	83%	
67	Mar-17	340,387	1,261,000	3.70	*1,440,000*	88%	
68	Apr-17	357,233	415,000	1.16	*1,440,000*	29%	
69	May-17	387,806	697,000	1.80	*1,440,000*	48%	
70	Jun-17	350,300	441,000	1.26	*1,440,000*	31%	
71	Jul-17	335,290	616,000	1.84	*1,440,000*	43%	
72	Aug-17	293,439	547,000	1.86	*1,440,000*	38%	
73	Sep-17	278,767	372,000	1.33	*1,440,000*	26%	
74	Oct-17	266,548	550,000	2.06	*1,440,000*	38%	
75	Nov-17	280,267	383,000	1.37	*1,440,000*	27%	
76	Dec-17	249,216	344,000	1.38	*1,440,000*	24%	

	A	B	C	D	E	F	G
77	Jan-18	269,032	504,000	1.87	*1,440,000*	35%	
78	Feb-18	492,000	1,188,000	2.41	*1,440,000*	83%	
79	Mar-18	277,533	351,000	1.26	*1,440,000*	24%	
80	Apr-18	297,867	490,000	1.65	*1,440,000*	34%	
81	May-18	308,806	607,000	1.97	*1,440,000*	42%	
82	Jun-18	306,067	424,000	1.39	*1,440,000*	29%	
83	Jul-18	331,323	560,000	1.69	*1,440,000*	39%	
84	Aug-18	323,935	453,000	1.40	*1,440,000*	31%	
85	Sep-18	185,087	474,000	2.56	*1,440,000*	33%	
86	Oct-18	316,680	532,000	1.68	*1,440,000*	37%	added 0 at end
87	Nov-18	321,070	455,000	1.42	*1,440,000*	32%	added 0 at end
88	Dec-18	359,680	785,000	2.18	*1,440,000*	55%	added 0 at end
89	Jan-19	319,680	567,000	1.77	*1,440,000*	39%	added 0 at end
90	Feb-19	288,821	517,000	1.79	*1,440,000*	36%	
91	Mar-19	274,355	607,000	2.21	*1,440,000*	42%	
92	Apr-19	275,933	402,000	1.46	*1,440,000*	28%	
93	May-19	384,568	683,000	1.78	*1,440,000*	47%	
94	Jun-19	388,667	640,000	1.65	*1,440,000*	44%	
95	Jul-19	389,710	706,000	1.81	*1,440,000*	49%	
96	Aug-19	340,286	518,000	1.52	*1,440,000*	36%	
97	Sep-19	298,813	389,000	1.30	*1,440,000*	27%	
98	Oct-19	337,484	453,000	1.34	*1,440,000*	31%	
99	Nov-19	331,667	435,000	1.31	*1,440,000*	30%	
100	Dec-19	155,042	544,000	3.51	*1,440,000*	38%	
101	Jan-20	178,677	439,000	2.46	*1,440,000*	30%	
102	Feb-20	253,348	633,000	2.50	*1,440,000*	44%	
103	Mar-20	286,226	376,000	1.31	*1,440,000*	26%	
104	Apr-20	291,167	352,000	1.21	*1,440,000*	24%	
105	May-20	288,387	380,000	1.32	*1,440,000*	26%	
106	Jun-20	261,321	335,000	1.28	*1,440,000*	23%	
107	Jul-20	296,097	525,000	1.77	*1,440,000*	36%	
108	Aug-20	305,210	808,500	2.65	*1,440,000*	56%	
109	Sep-20	246,933	380,000	1.54	*1,440,000*	26%	
110	Oct-20	319,916	746,000	2.33	*1,440,000*	52%	
111	Nov-20	243,500	457,000	1.88	*1,440,000*	32%	
112	Dec-20	248,387	300,000	1.21	*1,440,000*	21%	
113	Jan-21	279,048	600,000	2.15	*1,440,000*	42%	
114	Feb-21	248,625	344,000	1.38	*1,440,000*	24%	
115	Mar-21	259,452	336,000	1.30	*1,440,000*	23%	
116	Apr-21	256,033	342,000	1.34	*1,440,000*	24%	
117	May-21	299,765	402,000	1.34	*1,440,000*	28%	
118	Jun-21	295,933	405,000	1.37	*1,440,000*	28%	
119	Jul-21	274,000	362,000	1.32	*1,440,000*	25%	
120	Aug-21	267,355	391,000	1.46	*1,440,000*	27%	adjusted average and max to not include outlier
121	Sep-21	238,167	314,000	1.32	*1,440,000*	22%	
122	Oct-21	257,129	390,000	1.52	*1,440,000*	27%	
123	Nov-21	236,533	308,000	1.30	*1,440,000*	21%	
124	Dec-21	258,806	327,000	1.26	*1,440,000*	23%	
125	Jan-22	221,129	319,000	1.44	*1,440,000*	22%	
126	Feb-22	236,143	296,000	1.25	*1,440,000*	21%	
127	Mar-22	238,710	335,000	1.40	*1,440,000*	23%	
128	Apr-22	247,867	342,000	1.38	*1,440,000*	24%	
129	May-22	277,355	348,000	1.25	*1,440,000*	24%	
130	Jun-22	280,100	369,000	1.32	*1,440,000*	26%	
131	Jul-22	264,677	457,000	1.73	*1,440,000*	32%	adjusted average and max to not include outlier
132	Aug-22	279,323	480,000	1.72	*1,440,000*	33%	
133	Sep-22	300,800	720,000	2.39	*1,440,000*	50%	
134	Oct-22	273,774	372,000	1.36	*1,440,000*	26%	
135	Nov-22	269,003	637,000	2.37	*1,440,000*	44%	
136	Dec-22	258,871	412,000	1.59	*1,440,000*	29%	
137							

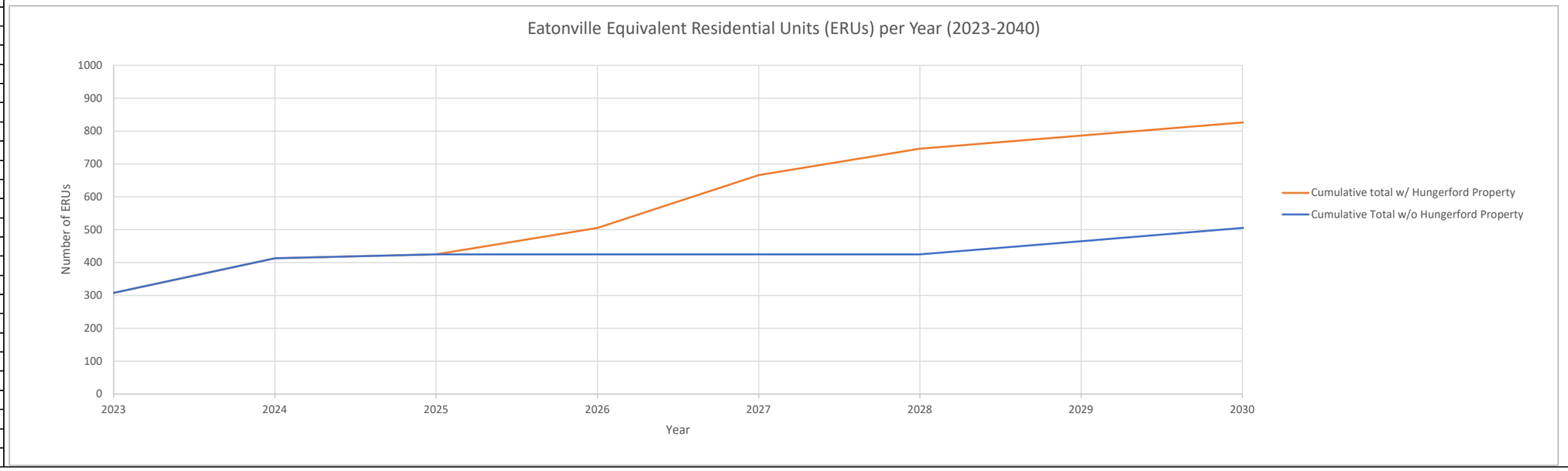
138	PARAMETER	WTP No. 1 Town of Eatonville				
139	Date					
140	(Year)	ADD (MGD)	MDD (MGD)	MDD/ADD	*Rated Max Day Design Capacity*	% Max Day Design Capacity
141	2012	0.301	0.575	1.91	*1.44*	30%
142	2013	0.283	0.603	2.13	*1.44*	29%
143	2014	0.307	1.125	3.67	*1.44*	28%
144	2015	0.327	0.677	2.07	*1.44*	29%
145	2016	0.313	1.301	4.16	*1.44*	29%
146	2017	0.327	1.261	3.85	*1.44*	28%
147	2018	0.316	1.188	3.76	*1.44*	28%
148	2019	0.315	0.706	2.24	*1.44*	28%
149	2020	0.268	0.809	3.01	*1.44*	28%
150	2021	0.264	0.600	2.27	*1.44*	28%
151	2022	0.262	0.720	2.74	*1.44*	29%
152	**Average (5-yr)**	**0.285**	**0.805**	**2.81**	**1.44**	**28%**
153						
154						
155						


Historical ADD and MDD
Max Daily Demand (gpd)
Average Daily Demand (gpd)
Demand (mgd)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Jan-12
Jul-12
Jan-13
Jul-13
Jan-14
Jul-14
Jan-15
Jul-15
Jan-16
Jul-16
Jan-17
Jul-17
Jan-18
Jul-18
Jan-19
Jul-19
Jan-20
Jul-20
Jan-21
Jul-21
Jan-22
Jul-22
Date

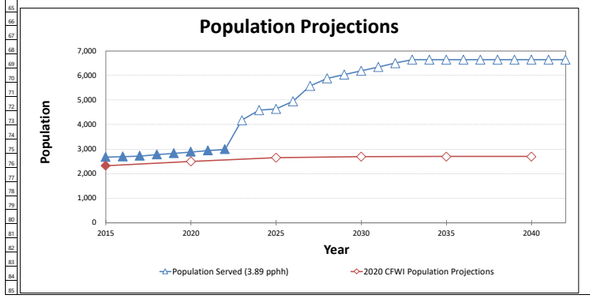
	A	B	C	D	E	F	G
1	PARAMETER	Date	SJRWMD EN-50	FDEP MOR	WTP Use	Town Billing	Loss
2	2015	Jan-15	0.308	0.308	0.000		0.308
3		Feb-15	0.295	0.295	0.000		0.295
4		Mar-15	0.314	0.314	(0.000)		0.314
5		Apr-15	0.307	0.307	(0.000)		0.307
6		May-15	0.346	0.346	0.000		0.346
7		Jun-15	0.364	0.364	(0.000)		0.364
8		Jul-15	0.399	0.399	0.000		0.399
9		Aug-15	0.350	0.350	(0.000)		0.350
10		Sep-15	0.317	0.317	-		0.317
11		Oct-15	0.317	0.317	(0.000)		0.317
12		Nov-15	0.309	0.309	-		0.309
13		Dec-15	0.300	0.300	0.000		0.300
14	2016	Jan-16	0.283	0.283	(0.000)		0.283
15		Feb-16	0.377	0.390	(0.013)		0.390
16		Mar-16	0.342	0.342	0.000		0.342
17		Apr-16	0.314	0.314	-		0.314
18		May-16	0.296	0.296	(0.000)		0.296
19		Jun-16	0.285	0.285	0.000		0.285
20		Jul-16	0.320	0.320	(0.000)		0.320
21		Aug-16	0.295	0.295	0.000		0.295
22		Sep-16	0.325	0.325	0.000		0.325
23		Oct-16	0.308	0.308	(0.000)		0.308
24		Nov-16	0.281	0.281	(0.000)		0.281
25		Dec-16	0.318	0.318	-		0.318
26	2017	Jan-17	0.295	0.295	0.000		0.295
27		Feb-17	0.492	0.492	-		0.492
28		Mar-17	0.340	0.340	0.000		0.340
29		Apr-17	0.357	0.357	0.000		0.357
30		May-17	0.388	0.388	0.000		0.388
31		Jun-17	0.350	0.350	-		0.350
32		Jul-17	0.335	0.335	0.000		0.335
33		Aug-17	0.293	0.293	(0.000)		0.293
34		Sep-17	0.279	0.279	(0.000)		0.279
35		Oct-17	0.267	0.267	0.000		0.267
36		Nov-17	0.280	0.280	0.000		0.280
37		Dec-17	0.249	0.249	0.000		0.249
38	2018	Jan-18	0.269	0.269	0.000		0.269
39		Feb-18	0.267	0.492	(0.225)		0.492
40		Mar-18	0.276	0.278	(0.001)		0.278
41		Apr-18	0.298	0.298	(0.000)		0.298
42		May-18	0.309	0.309	0.000		0.309
43		Jun-18	0.306	0.306	(0.000)		0.306
44		Jul-18	0.331	0.331	(0.000)		0.331
45		Aug-18	0.324	0.324	0.000		0.324
46		Sep-18	0.185	0.185	(0.000)		0.185
47		Oct-18	0.317	0.317	(0.000)		0.317
48		Nov-18	0.321	0.321	(0.000)		0.321
49		Dec-18	0.360	0.360	(0.000)		0.360
50	2019	Jan-19	0.320	0.320	(0.000)		0.320
51		Feb-19	0.289	0.289	0.000		0.289
52		Mar-19	0.274	0.274	(0.000)		0.274
53		Apr-19	0.286	0.276	0.010		0.276
54		May-19	0.385	0.385	(0.000)		0.385
55		Jun-19	0.389	0.389	(0.000)		0.389
56		Jul-19	0.390	0.390	(0.000)		0.390
57		Aug-19	0.340	0.340	(0.000)		0.340
58		Sep-19	0.299	0.299	(0.000)		0.299
59		Oct-19	0.337	0.337	(0.000)		0.337
60		Nov-19	0.332	0.332	(0.000)		0.332
61		Dec-19	0.155	0.155	(0.000)		0.155
62	2020	Jan-20	0.179	0.179	0.000		0.179
63		Feb-20	0.253	0.253	0.000		0.253
64		Mar-20	0.286	0.286	(0.000)		0.286
65		Apr-20	0.291	0.291	(0.000)		0.291
66		May-20	0.288	0.288	0.000		0.288
67		Jun-20	0.246	0.261	(0.016)		0.261
68		Jul-20	0.296	0.296	(0.000)		0.296
69		Aug-20	0.305	0.305	(0.000)		0.305
70		Sep-20	0.247	0.247	0.000		0.247
71		Oct-20	0.320	0.320	0.000		0.320
72		Nov-20	0.244	0.244	-		0.244
73		Dec-20	0.248	0.248	0.000		0.248
74	2021	Jan-21	0.279	0.279	0.000		0.279
75		Feb-21	0.249	0.249	-		0.249
76		Mar-21	0.259	0.259	(0.000)		0.259
77		Apr-21	0.256	0.256	0.000		0.256
78		May-21	0.300	0.300	(0.000)		0.300
79		Jun-21	0.296	0.296	0.000		0.296
80		Jul-21	0.274	0.274	-		0.274
81		Aug-21	0.438	0.267	0.170		0.267
82		Sep-21	0.238	0.238	(0.000)		0.238
83		Oct-21	0.257	0.257	0.000		0.257
84		Nov-21	0.237	0.237	0.000		0.237
85		Dec-21	0.259	0.259	0.000		0.259
86	2022	Jan-22	0.221	0.221	0.000		0.221
87		Feb-22	0.236	0.236	(0.000)		0.236
88		Mar-22	0.239	0.239	(0.000)		0.239
89		Apr-22	0.248	0.248	(0.000)		0.248
90		May-22	0.277	0.277	(0.000)		0.277
91		Jun-22	0.280	0.280	-		0.280
92		Jul-22	0.336	0.265	0.071		0.265
93		Aug-22	0.279	0.279	(0.000)		0.279
94		Sep-22	0.301	0.301	-		0.301
95		Oct-22	0.274	0.274	0.000		0.274
96		Nov-22	0.269	0.269	(0.000)		0.269
97		Dec-22	0.259	0.259	(0.000)		0.259

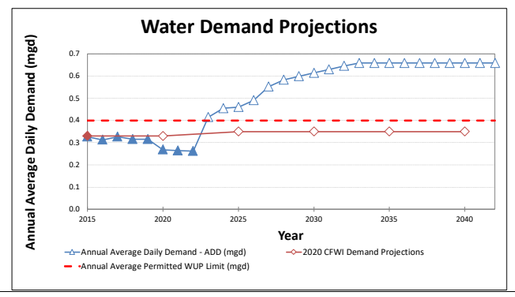


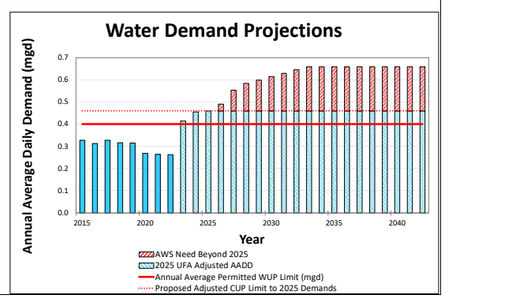
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**Project ID**	**Name**	**Type**	**Status**	**Acres**	**# Lots/ ERU**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Comments**
2	1	Lake Weston Apartments	Multi Family	In Construction	49.5	**308**	308											107,552 AADF
3	2	Enclave Apartments	Multi Family	In Construction	14.99	**72**		72										72 ERU
4	3	Host Dime	Commercial	In Construction	5	**33**		33										11,235 AADF
5	4	Commercial Property	Commercial	Concept Plan		**12**			12									Assumed 12 based on nearby property plans
6	5	Hungerford Property	Mixed Use	Concept Plan	67.3	**321**				80	161	80						Assumed 321 connections from 2018 Master Plan
7	6	Bing Property	C-1, C-3, R-2	Vacant	6.36	**51**							40	11				R-2 = 8 DU/acre
8	7	Interstate Property	C-3, I-1	Vacant	3.7	**16**								16				*acres*1500 gpd/acre/350 gpd per ERU
9	8	Orra Ventures LLC	I-1	Vacant	1.63	**7**								7				*acres*1500 gpd/acre/350 gpd per ERU
10	9	339 Clark St	R-2	Vacant	1.6	**13**								6	7			R-2 = 8 DU/acre
11	10	690 W Kennedy Blvd	C-3	Vacant	0.95	**4**									4			*acres*1500 gpd/acre/350 gpd per ERU
12	11	W Kennedy	R-1	Vacant	1	**5**									5			R-1 = 5 du/acre
13	12	BOCPS	C-3	Vacant - County Parks & Rec	17.61	**75**									24	40	11	*acres*1500 gpd/acre/350 gpd per ERU
14	13	DOT	C-2/M-U	Vacant - State Forest Parks & Rec	5.71	**24**											24	*acres*1500 gpd/acre/350 gpd per ERU
15																		
16																		
17	**TOTAL per Year**	**-**			**175**	**942**	**308**	**105**	**12**	**80**	**161**	**80**	**40**	**40**	**40**	**40**	**35**	
18	**w/o Hungerford**				**108**	**621**	**308**	**105**	**12**	**0**	**0**	**0**	**40**	**40**	**40**	**40**	**35**	
19	**Cumulative Total**						**308**	**413**	**425**	**505**	**666**	**746**	**786**	**826**	**866**	**906**	**941**	
20	**w/o Hungerford**						**308**	**413**	**425**	**425**	**425**	**425**	**465**	**505**	**545**	**585**	**620**	
21	**Difference**					**321**	**0**	**0**	**0**	**80**	**241**	**321**	**321**	**321**	**321**	**321**	**321**	



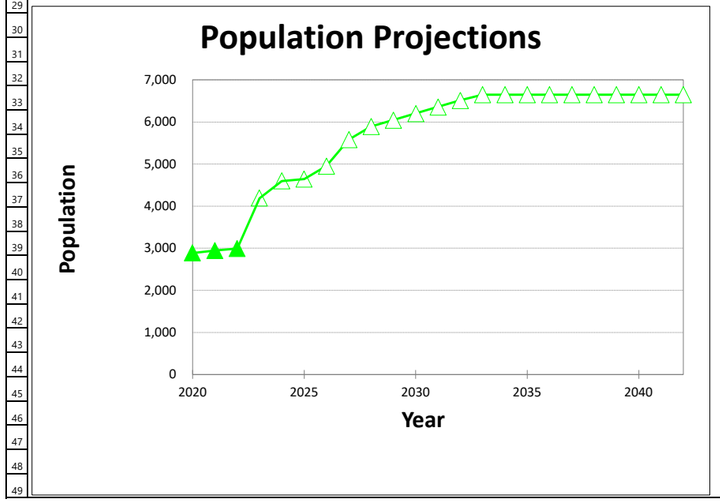
PARAMETER	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	COMMENTS
Potable Water Use																													
Total # of Active Service Water Connections	686	693	700	714	728	742	756	768	1,076	1,181	1,193	1,273	1,434	1,514	1,554	1,594	1,634	1,674	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	
Service Connections per Year	---	--	7	14	14	14	14	12	308	105	12	80	161	80	40	40	40	40	35	0	0	0	0	0	0	0	0	0	
Future Cumulative Dwelling Units									308	413	425	505	666	746	786	826	866	906	941	941	941	941	941	941	941	941	941	941	Plans for New Developments
Persons per Household (pphh) - Connection	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	2020 US Census = 3.89 persons per household
Per Capita Usage (gpdc)	123	116	120	114	111	93	90	88	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	Town of Eatonville LOS 350 gpd per ERU
Population Served (3.89 pphh)	2,669	2,696	2,723	2,777	2,832	2,886	2,941	2,988	4,186	4,594	4,641	4,952	5,578	5,889	6,045	6,201	6,356	6,512	6,648	6,648	6,648	6,648	6,648	6,648	6,648	6,648	6,648	6,648	
Annual Average Daily Demand - ADD (mgd)	0.33	0.31	0.33	0.32	0.32	0.27	0.26	0.26	0.41	0.46	0.46	0.49	0.55	0.58	0.60	0.61	0.63	0.65	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.659	
Max Day Demand - MDD (mgd)	0.68	1.30	1.26	1.19	0.71	0.81	0.60	0.72	1.16	1.28	1.29	1.38	1.55	1.64	1.68	1.72	1.77	1.81	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	
MDD/ADD Peaking Factor	2.07	4.16	3.85	3.76	2.24	3.01	2.27	2.74	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	Average 2018 to 2022
PHD/ADD Peaking Factor	4.14	8.32	7.71	7.52	4.48	6.03	4.54	5.49	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	2 * MDD/ADD peaking factor
PHD (gpm)	940	1,806	1,750	1,649	980	1,122	833	999	1,616	1,774	1,792	1,912	2,154	2,274	2,334	2,394	2,454	2,514	2,567	2,567	2,567	2,567	2,567	2,567	2,567	2,567	2,567	2,567	
2020 CFWI Population Projections	2,324					2,501					2,658					2,701					2,702					2,702			
2020 CFWI Demand Projections	0.33					0.33					0.35					0.35					0.35					0.35			
CFWI 2025 Limit	0.35					0.35					0.35					0.35					0.35					0.35			
2025 UFA Adjusted AADD	0.33	0.31	0.33	0.32	0.32	0.27	0.26	0.26	0.41	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	
AWS Need Beyond 2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.09	0.12	0.14	0.15	0.17	0.19	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
Proposed Adjusted CUP Limit to 2025 Demands	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	Based on CWFI UFA Withdrawal Limits
Permitted Groundwater Withdrawal Allocation																													
Annual Average Permitted WUP Limit (mgd)	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	
ADD (mgd)	0.33	0.31	0.33	0.32	0.32	0.27	0.26	0.26	0.41	0.46	0.46	0.49	0.55	0.58	0.60	0.61	0.63	0.65	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	
ADD WUP Surplus/Deficit (mgd)	0.07	0.09	0.07	0.08	0.08	0.13	0.14	0.14	(0.01)	(0.06)	(0.06)	(0.09)	(0.15)	(0.18)	(0.20)	(0.21)	(0.23)	(0.25)	(0.26)	(0.26)	(0.26)	(0.26)	(0.26)	(0.26)	(0.26)	(0.26)	(0.26)	(0.26)	
Percent WUP Allocation (%)	82%	78%	82%	79%	79%	67%	66%	66%	104%	114%	115%	123%	138%	146%	150%	154%	158%	161%	165%	165%	165%	165%	165%	165%	165%	165%	165%	165%	Begin Planning @ 90%
Rated Maximum-Day Design Capacity																													
Max Day Design Capacity (mgd)	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	FDEP PWS No. 6530431
MDD (mgd)	0.68	1.30	1.26	1.19	0.71	0.81	0.60	0.72	1.16	1.28	1.29	1.38	1.55	1.64	1.68	1.72	1.77	1.81	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	
Design Surplus/Deficit (mgd)	0.76	0.14	0.18	0.25	0.73	0.63	0.84	0.72	0.28	0.16	0.15	0.06	(0.11)	(0.20)	(0.24)	(0.28)	(0.33)	(0.37)	(0.41)	(0.41)	(0.41)	(0.41)	(0.41)	(0.41)	(0.41)	(0.41)	(0.41)	(0.41)	
Percent Design Capacity (%)	47%	90%	88%	83%	49%	56%	42%	50%	81%	89%	90%	96%	108%	114%	117%	120%	123%	126%	128%	128%	128%	128%	128%	128%	128%	128%	128%	128%	Begin Planning @ 75% Capacity
Well Production Capacity (TOTAL)																													
Total Well Capacity (gpm)	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	FGUA Meter Calibration 6/6/2023
MDD + FF (gpm)	1,470	1,903	1,875	1,824	1,490	1,561	1,416	1,500	1,808	1,887	1,896	1,956	2,077	2,137	2,167	2,197	2,227	2,257	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	FDEP 62-555.315(3) => Total > MDD + FF
Total Well Surplus/Deficit (gpm)	(126)	(559)	(531)	(480)	(146)	(217)	(72)	(156)	(464)	(543)	(552)	(612)	(733)	(793)	(823)	(853)	(883)	(913)	(939)	(939)	(939)	(939)	(939)	(939)	(939)	(939)	(939)	(939)	
Percent Total Well Capacity (%)	109%	142%	140%	136%	111%	116%	105%	112%	135%	140%	141%	146%	155%	159%	161%	163%	166%	168%	170%	170%	170%	170%	170%	170%	170%	170%	170%	170%	Begin Planning @ 75% Capacity
Well Production Capacity (FIRM - Largest Well Off-Line)																													
Firm Well Capacity (gpm)	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	Largest Well Off-line - FGUA Meter Calibration 6/6/2023
MDD (gpm)	470	903	875	824	490	561	416	500	808	887	896	956	1,077	1,137	1,167	1,197	1,227	1,257	1,283	1,283	1,283	1,283	1,283	1,283	1,283	1,283	1,283	1,283	FDEP 62-555.315(3) => Firm > ADD (preferably MDD)
Firm Well Surplus/Deficit (mgd)	197	(236)	(208)	(157)	177	106	251	167	(141)	(220)	(229)	(289)	(410)	(470)	(500)	(530)	(560)	(590)	(616)	(616)	(616)	(616)	(616)	(616)	(616)	(616)	(616)	(616)	
Percent Firm Well Capacity (%)	70%	135%	131%	124%	73%	84%	62%	75%	121%	133%	134%	143%	161%	170%	175%	179%	184%	188%	192%	192%	192%	192%	192%	192%	192%	192%	192%	192%	Begin Planning @ 75% Capacity
Storage																													
On-Site GST (MG)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	2021 Sanitary Survey
On-Site EST (MG)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Off-Line (200,000 gal)
Off-Site EST (MG)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
Total Storage Available (MG)	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	
Equivalent MDD Available Storage (mgd)	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	FDEP 62-555.320(a) => MG = 25%MDD (mgd)
Required 25% MDD Storage (MG)	0.17	0.33	0.32	0.30	0.18	0.20	0.15	0.18	0.29	0.32	0.32	0.34	0.39	0.41	0.42	0.43	0.44	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	
Required Fire Flow Storage (MG)	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	FF = 1.000 gpm for 2 hours
Required 4-Log CT Storage (MG)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5 mg/L @ CT = 4 mg/L-min
Total Storage Required (MG)	0.30	0.46	0.45	0.43	0.31	0.34	0.28	0.31	0.43	0.45	0.46	0.48	0.52	0.54	0.55	0.57	0.58	0.59	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	
Storage Capacity Surplus/Deficit (MG)	0.10	(0.06)	(0.05)	(0.03)	0.09	0.06	0.12	0.09	(0.03)	(0.05)	(0.06)	(0.08)	(0.12)	(0.14)	(0.15)	(0.17)	(0.18)	(0.19)	(0.20)	(0.20)	(0.20)	(0.20)	(0.20)	(0.20)	(0.20)	(0.20)	(0.20)	(0.20)	
Percent Storage Capacity (%)	76%	115%	112%	108%	78%	84%	71%	79%	106%	113%	114%	120%	131%	136%	139%	141%	144%	147%	149%	149%	149%	149%	149%	149%	149%	149%	149%	149%	Begin Planning @ 75% Capacity
High Service Pumping (TOTAL)																													
Installed HSP Capacity (gpm)	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	2021 Sanitary Survey
Equivalent EST Capacity (gpm)	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	Per Hydraulic Model
Required Capacity - PHD (gpm)	940	1,806	1,750	1,649	980	1,122	833	999	1,616	1,774	1,792	1,912	2,154	2,274	2,334	2,394	2,454	2,514	2,567	2,567	2,567	2,567	2,567	2,567	2,567	2,567	2,567	2,567	
Installed HSP Surplus/Deficit (gpm)	1,693	827	883	984	1,653	1,511	1,800	1,634	1,017	859	841	721	479	359	299	239	179	119	66	66	66	66	66	66	66	66	66	66	
Percent HSP Capacity (%)	36%	69%	66%	63%	37%	43%	32%	38%	61%	67%	68%	73%	82%	86%	89%	91%	93%	95%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%	Begin Planning @ 75% Capacity
High Service Pumping (FIRM)																													
Firm HSP Capacity (gpm)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	2021 Sanitary Survey
Equivalent EST Capacity (gpm)	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	833	Per Hydraulic Model
Required Capacity = MDD + FF (gpm)	1,470	1,903	1,875	1,824	1,490	1,561	1,416	1,500	1,808	1,887	1,896	1,956	2,077	2,137	2,167	2,197	2,227	2,257	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	Largest HSP Off-Line at each WTP
Firm HSP Surplus/Deficit (gpm)	363	(70)	(42)	9	343	272	417	333	25	(54)	(63)	(123)	(244)	(304)	(334)	(364)	(394)	(424)	(450)	(450)	(450)	(450)	(450)	(450)	(450)	(450)	(450)	(450)	
Percent HSP Capacity (%)	80%	104%	102%	100%	81%	85%	77%	82%	99%	103%	103%	107%	113%	117%	118%	120%	121%	123%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	Begin Planning @ 75% Capacity

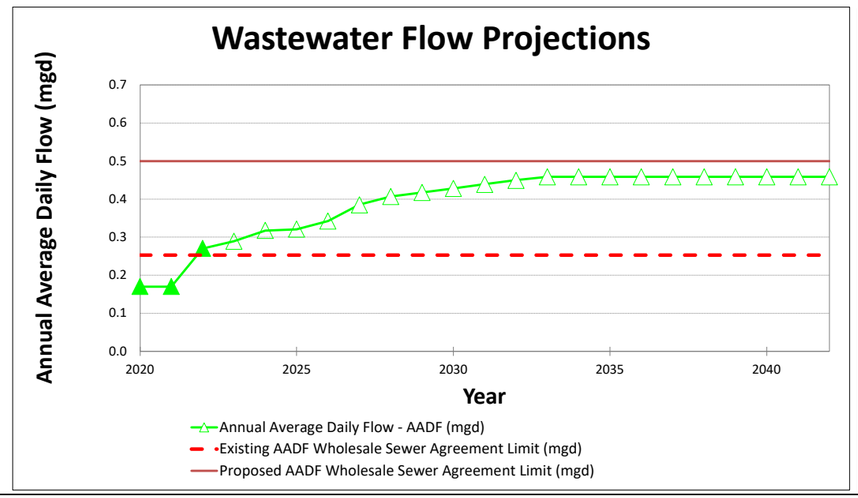


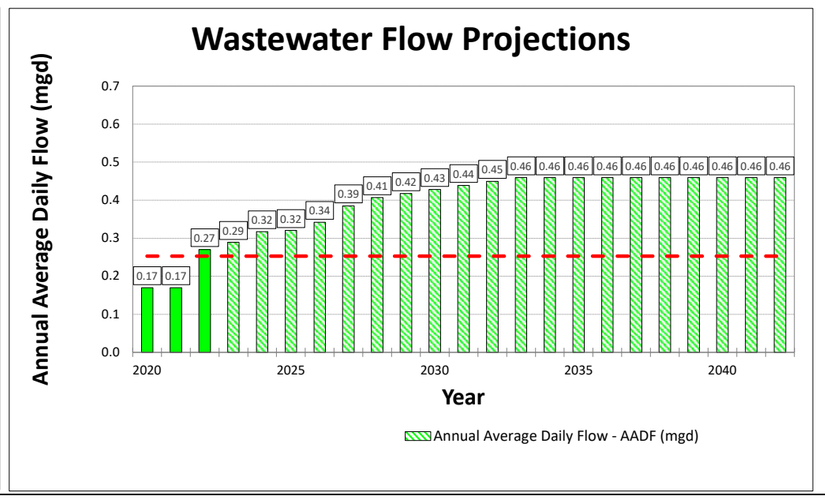




PARAMETER	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	COMMENTS
Wastewater Use																								
Total # of Active Service Water Connections	742	756	768	1,076	1,181	1,193	1,273	1,434	1,514	1,554	1,594	1,634	1,674	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	1,709	
Service Connections per Year	0	14	12	308	105	12	80	161	80	40	40	40	40	35	0	0	0	0	0	0	0	0	0	
Future Cumulative Dwelling Units			12	320	425	437	517	678	758	798	838	878	918	953	953	953	953	953	953	953	953	953	953	Plans for New Developments
Persons per Household (pphh) - Connection	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	3.89	2020 US Census = 3.89 persons per household
Per Capita Usage (gpdc)	59	58	90	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	
Flow per Connection	229	225	352	269	269	269	269	269	269	269	269	269	269	269	269	269	269	269	269	269	269	269	269	Town of Eatonville LOS 300 gpd per ERU
Population Served (3.89 pphh)	2,886	2,941	2,988	4,186	4,594	4,641	4,952	5,578	5,889	6,045	6,201	6,356	6,512	6,648	6,648	6,648	6,648	6,648	6,648	6,648	6,648	6,648	6,648	
Annual Average Daily Flow - AADF (mgd)	0.17	0.17	0.27	0.29	0.32	0.32	0.34	0.39	0.41	0.42	0.43	0.44	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	Based on meter at Master Lift Station (2022 skewed due to Hurricane Ian)
Max Day Flow - MDF (mgd)	0.34	0.34	0.54	0.58	0.63	0.64	0.68	0.77	0.81	0.83	0.86	0.88	0.90	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	MDF/ADF Peaking Factor = 2
Peak Hour Flow - PHF (gpm)	0.68	0.68	1.08	1.16	1.27	1.28	1.37	1.54	1.63	1.67	1.71	1.76	1.80	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	PHF/ADF Peaking Factor = 4
Existing Service Agreement to Altamonte																								
Existing AADF Wholesale Sewer Agreement Limit (mgd)	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	Existing Wholesale Agreement = 252,893 mgd AADF
AADF (mgd)	0.17	0.17	0.27	0.29	0.32	0.32	0.34	0.39	0.41	0.42	0.43	0.44	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	
AADF Agreement Surplus/Deficit (mgd)	0.08	0.08	(0.02)	(0.04)	(0.06)	(0.07)	(0.09)	(0.13)	(0.15)	(0.16)	(0.18)	(0.19)	(0.20)	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)	
Percent Agreement Allocation (%)	67%	67%	107%	114%	125%	127%	135%	152%	161%	165%	169%	173%	178%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	
Proposed Service Agreement to Altamonte																								
Proposed AADF Wholesale Sewer Agreement Limit (mgd)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	Proposed Wholesale Agreement = 500,000 mgd AADF
AADF (mgd)	0.17	0.17	0.27	0.29	0.32	0.32	0.34	0.39	0.41	0.42	0.43	0.44	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	
AADF Agreement Surplus/Deficit (mgd)	0.33	0.33	0.23	0.21	0.18	0.18	0.16	0.11	0.09	0.08	0.07	0.06	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	
Percent Agreement Allocation (%)	34%	34%	54%	58%	63%	64%	68%	77%	81%	83%	86%	88%	90%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	
Rated Capacity of Master Lift Station																								
Design Capacity (gpm)	740	740	740	740	740	740	740	740	740	740	740	740	740	740	740	740	740	740	740	740	740	740	740	Per Park Master Lift Station Plans
MDF (gpm)	236	236	375	401	440	445	475	535	565	580	594	609	624	637	637	637	637	637	637	637	637	637	637	
Design Surplus/Deficit (mgd)	504	504	365	339	300	295	265	205	175	160	146	131	116	103	103	103	103	103	103	103	103	103	103	
Percent Design Capacity (%)	32%	32%	51%	54%	60%	60%	64%	72%	76%	78%	80%	82%	84%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	Begin Planning at 75% Capacity

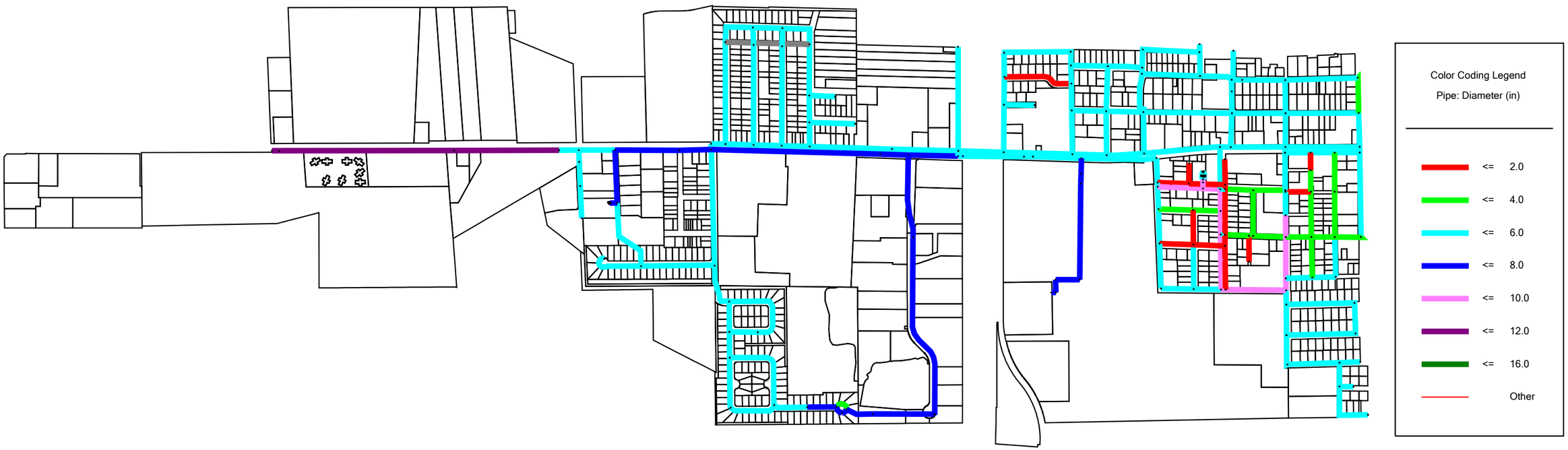






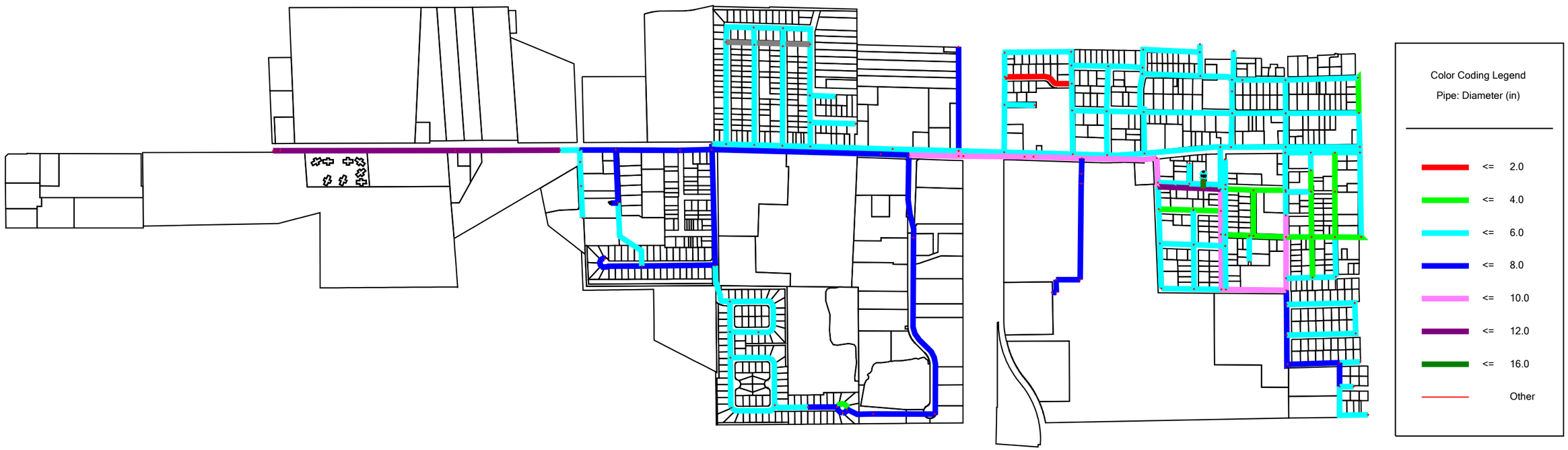
APPENDIX F: Potable Water System Hydraulic Model

Scenario: Base



Bentley Systems, Inc. Haestad Methods Solution Center
76 Watertown Road, Suite 2D Thomaston, CT 06787 USA +1-203-755-1666

Scenario: Base w/ Upsized Pipes



Bentley Systems, Inc. Haestad Methods Solution Center
76 Watertown Road, Suite 2D Thomaston, CT 06787 USA +1-203-755-1666

APPENDIX G: Town of Eatonville Budget FY 2022/23

TOWN OF EATONVILLE
CAPITAL PROJECT BUDGET
FISCAL YEAR 2022 - 2023 APPROVED CAPITAL BUDGET

DEPARTMENT ACCOUNT NAME	ACCOUNT NUMBER	FY 22 - 23 APPROVED BUDGET
REVENUES	***FUND - 300***	
CLEAN WATER - SRF	300-337.9000	665,000
AARP	300-331.0100	500,000
FDOT - ARTS ENDOWMENT	300-331.0200	180,000
TOTAL GRANTS		**1,345,000**
TOTAL OPERATING REVENUE		**1,345,000**
VEREEN LIFT STATION/QUAD REHAB.		
OPERATING EXPENSES		
Professional Services	300-0536-536.3100	
Contractual Services	300-0536-536.3400	65,000
CAPITAL OUTLAYS		
Construction in Progress	300-0536-536.6500	600,000
TOTAL CAPITAL OUTLAY		665,000
TOTAL CLEAN WATER SRF EXPEND		665,000

FDOT - ARTS		
OPERATING EXPENSES		
Professional Services	300-0541.541.3100	
Contractual Services	300-0541-541.3400	50,000
TOTAL OPERATING EXPENSES		50,000
CAPITAL OUTLAYS		
ARTS	300-0541-541.6500	130,000
TOTAL CAPITAL OUTLAY		130,000
TOTAL FDOT GRANT EXPENDITURES		180,000
AARP		
OPERATING EXPENSES		
Administrative Costs	300-0533-533.3411	
Contractual Services	300-0533-533.3400	0
TOTAL OPERATING EXPENSES		0
CAPITAL OUTLAYS		
Infrastruction	300-0533-533.6500	500,000
TOTAL CAPITAL OUTLAY		500,000
TOTAL AARP GRANT EXPEND.		500,000
TOTAL CAPITAL PROJECT EXPEND.		**1,345,000**

	A	B	F	G	I
1					
2	**TOWN OF EATONVILLE**				
3	**FISCAL YEAR (FY) 2022 - 2023**				
4	**APPROVED ENTERPRISE FUND BUDGET**				
5	**WATER & SEWER FUND**				
6					
7	**DEPARTMENT**	**ACCOUNT**	**FISCAL 20-21**	**FISCAL 21-22**	**FY 22-23**
8	**ACCOUNT NAME**	**NUMBER**	**APPROVED**	**APPROVED**	**APPROVED**
9			**BUDGET**	**BUDGET**	**BUDGET**
10					
11					
12					
13	**WATER & SEWER REVENUE**	FUND-400			
14					
15	**Beginning Enterprise Fund Balance**				
16			$100,000.00	$100,000.00	$100,000.00
17	CHARGES FOR SERVICES				
18	Water	400-343.3000	300,000	300,000	300,000
19	Sewer	400-343.5000	400,000	400,000	400,000
20	Cut on/off Fees	400-343.6310	8,946	8,946	8,946
21	Connection Fees	400-343.6510	23,100	50,000	300,000
22	Late Penalty	400-343.6900	20,000	20,000	20,000
23	Return Check Fees/SERVICE CHARGE FE	400-343.6910	1,000	1,000	1,000
24	Miscellaneous-Other	400-343.6930	7,000	7,000	7,000
25	Interest Income	400-361.1000	565	565	565
26		400-343.9000			
27	SERVICE CHARGES	400-343.9005	2,000	2,000	2,000
28		400-343.9006			
29		400-343.9010			
30		400-343.9020			
31		400-343.9040			
32		400-369-0000			
33					
34	STATE & FEDERAL GRANTS REVENUE				
35					
36	(ARPA)Coronavirus Local Fiscal Recv Funds			570,000	503,747
37					
38					
39	**TOTAL WATER & SEWER REVENUE**		**$862,611.00**	**$1,459,511.00**	**$1,643,258.00**
40					
41					

	A	B	F	G	I
42	**TOWN OF EATONVILLE**				
43	**FISCAL YEAR 2022 - 2023**				
44	**APPROVED ENTERPRISE FUND BUDGET**				
45					
46					
47	**DEPARTMENT**	**ACCOUNT**	**FISCAL 20-21**	**FISCAL 21-22**	**FY 22-23**
48	**ACCOUNT NAME**	**NUMBER**	**APPROVED**	**APPROVED**	**APPROVED**
49			**BUDGET**	**BUDGET**	**BUDGET**
50					
51					
52	**WATER & SEWER -536**				
53	**EXPENDITURES**				
54					
55	PERSONAL SERVICES				
56	Salaries & Wages - Regular	400-0536-536.1200	183,999	193,597	173,146
57					
58	Wages Overtime	400-0536-536.1400	10,000	10,000	6,000
59	Stand By Pay	400-0536-536.1700	7,200	7,000	5,000
60					
61					
62	**TOTAL SALARIES & WAGES**		**201,199**	**210,597**	**184,146**
63					
64	FRINGE BENEFITS				
65	FICA Taxes - 7.65%	400-0536-536.2100	15,376	16,111	14,087
66	Retirement 5%	400-0536-536.2200	4,818	4,818	4,533
67	Health & Life Insurance	400-0536-536.2300	38,537	38,537	40,441
68	Workers' Compensation	400-0536-536.2400	9,230	9,230	10,000
69	Unemployment Compensation	400-0536-536.2500	-	-	-
70					
71	**TOTAL FRINGE BENEFITS**		**67,961**	**68,696**	**69,061**
72					
73	**TOTAL PERSONAL SERVICES**		**269,160**	**279,293**	**253,207**
74					
75	OPERATING EXPENSES				
76	Professional Services	400-0536-536.3100	10,000	10,000	15,000
77	Contractual Services	400-0536-536.3400	30,000	30,000	50,000
78	Contractual Services-Altamonte Springs	400-0536-536.3410	260,000	300,000	300,000
79	Administrative Expense	400-0536-536.3500	55,000	15,000	20,000
80	Travel & Per Diem	400-0536-536.4000	2,000	2,000	2,000
81	Communication Services	400-0536-536.4100	3,500	3,500	3,500
82	Mail & Freight	400-0536-536.4200	5,000	5,000	5,000
83	Utility Services	400-0536-536.4300	25,000	20,000	20,000
84	Rentals & Leases	400-0536-536.4400	10,000	3,000	5,000
85	Repair & Maintenance - Auto	400-0536-536.4610	5,000	5,000	5,000
86	REPAIR & MAINTENANCE - OTHER	400-0536-536.4620	3,500	3,500	25,000
87	Repair - Lift Station	400-0536-536.4630	10,000	5,000	25,000
88	Repair & maintenance - WATER LINES	400-0536-536.4650	5,000	5,000	25,000
89	Repair & maintenance - Sewer Lines	400-0536-536.4660	10,000	5,000	25,000
90	Printing & Binding	400-0536-536.4700	2,200	2,200	2,000
91	Legal AD	400-0536-536.4900	1,000	1,000	1,000
92	Office Supplies	400-0536-536.5100	1,500	1,500	1,000
93	Operating Supplies	400-0536-536.5210	10,000	5,000	25,000
94	Uniforms & Shoes	400-0536-536.5220	750	750	1,100
95	Chemicals	400-0536-536.5280	20,000	20,000	30,000
96	Gas & Oil	400-0536-536.5290	8,600	8,600	10,000
97	Books, Publications, Subscriptions	400-0536-536.5400	200	200	200
98		400-0536-536.5500			
99	Depreciation	400-0536-536.5900			
100	Contingency	400-0536-536.5800	10,201	24,103	199,314
101	**TOTAL OPERATING EXPENSES**		**488,451**	**475,353**	**795,114**
102					
103					

	A	B	F	G	I
104					
105	**TOWN OF EATONVILLE**				
106	**FISCAL YEAR 2021 - 2022**				
107	**APPROVED ENTERPRISE FUND BUDGET**				
108					
109					
110	**DEPARTMENT**	**ACCOUNT**	**FISCAL 20-21**	**FY 21-22**	**FY 22-23**
111	**ACCOUNT NAME**	**NUMBER**	**APPROVED**	**APPROVED**	**APPROVED**
112			**BUDGET**	**BUDGET**	**BUDGET**
113					
114					
115	CAPITAL OUTLAYS				
116					
117	West WaterTower Repairs/Renovations			300,000	300,000
118	Meter Replacement Program			200,000	133,747
119	Valve Repair/Replacement Program			50,000	50,000
120				20,000	20,000
121					
122	Lift Stations Improvement	400-0536-536.6320			
123	Utility Truck	400-0536-536.6420		20,000	20,000
124	Equipment & Machinery	400-0536-536.6420			
125	Vehicle - F150	400-0536-536.6420	20,000	20,000	20,000
126	**TOTAL CAPITAL OUTLAY**		**$20,000.00**	**$610,000.00**	**$543,747.00**
127					
128					
129	DEBT SERVICE-SRF Loan				
130	SRF	400-0536-536.7100	85,000	85,000	41,325
131	USDA	400-0536-536.7100	-	9,865	9,865
132	Bond Cost	400-0536-536.7101			
133	Interest Expense	400-0536-536.7102			
134	**TOTAL DEBT SERVICE**		**85,000**	**94,865**	**$51,190.33**
135					
136					
137			**-**	**-**	**-**
138					
139			**-**	**-**	**-**
140					
141	**TOTAL WATER/SEWER EXPENDITURES**		**862,611**	**1,459,511**	**1,643,258**
142					
143	**(OVER/UNDER BUDGET)**				**(0)**
144					

	A	B	F	G	I
145					
146	**TOWN OF EATONVILLE**				
147	**FISCAL YEAR 2019-2020**				
148	**APPROVED ENTERPRISE FUND BUDGET**				
149					
150					
151	**DEPARTMENT**	**ACCOUNT**	**FISCAL 20-21**	**FISCAL 2022**	**FISCAL 2023**
152	**ACCOUNT NAME**	**NUMBER**	**APPROVED**	**APPROVED**	**APPROVED**
153			**BUDGET**	**BUDGET**	**BUDGET**
154					
155	**SOLID WASTE**	FUND 401			
156	**ESTIMATED REVENUES**				
157					
158	CHARGES FOR SERVICES				
159					
160	Residential/Commercial Refuse/Recyc	401-343.4000	360,000	360,000	360,000
161					
162					
163	**TOTAL REVENUES**		**360,000**	**360,000**	**360,000**
164					
165	**SOLID WASTE - 401**				
166	**EXPENDITURES**				
167					
168	CONTRACTUAL SERVICES	401-0534-534.3400	293,550	293,550	293,550
169					
170	Fund Balance		66,450	66,450	66,450
171	**TOTAL SOLID WASTE EXPEND.**		**360,000**	**360,000**	**360,000**
172					
173	**(OVER/UNDER BUDGET)**		**-**	**-**	**-**
174					

	A	B	F	G	I
175					
176	**TOWN OF EATONVILLE**				
177	**FISCAL YEAR 2022 -2023**				
178	**APPROVED ENTERPRISE FUND BUDGET**				
179					
180					
181	**DEPARTMENT**	**ACCOUNT**	**FISCAL 20-21**	**FISCAL 2022**	**FISCAL 2023**
182	**ACCOUNT NAME**	**NUMBER**	**APPROVED**	**APPROVED**	**APPROVED**
183			**BUDGET**	**BUDGET**	**BUDGET**
184					
185					
186	**STORMWATER**				
187	**REVENUES**				
188					
189	CHARGES FOR SERVICES				
190	Stormwater Revenue	402-343.0000	219,336	219,336	219,336
191	Interest Earnings - Stormwater	402-361.0000			
192	Residential				
193	Commercial				
194	**SUB-TOTAL REVENUES**		**219,336**	**219,336**	**219,336**
195					
196					
197	**STORMWATER FUND - 402**				
198	**EXPENDITURES**				
199					
200	PERSONAL SERVICES				
201	Salaries & Wages - Regular	402-0538-538.1200	87,266	72,324	100,404
202	Standby Pay	402-0538-538.1700	-	-	
203	Wages Overtime	402-0538-538.1400	6,000	6,000	3,000
204					
205					
206	**TOTAL SALARIES & WAGES**		**93,266**	**78,324**	**103,404**
207					
208	FRINGE BENEFITS				
209	FICA Taxes - 7.65%	402-0538-538.2100	7,135	5,992	7,910
210	Retirement 5%	402-0538-538.2200	3,308	3,425	3,029
211	Health & Life Insurance	402-0538-538.2300	12,000	12,000	15,555
212	Workers' Compensation	402-0538-538.2400	5,998	5,998	6,300
213	Unemployment Compensation	402-0538-538.2500	-	-	-
214					
215	**TOTAL FRINGE BENEFITS**		**28,441**	**27,415**	**32,794**
216					
217	**TOTAL PERSONAL SERVICES**		**121,707**	**105,739**	**136,198**
218					

	A	B	F	G	I
219					
220					
221	**TOWN OF EATONVILLE**				
222	**FISCAL YEAR 2022 - 2023**				
223	**APPROVED ENTERPRISE FUND BUDGET**				
224					
225					
226	**DEPARTMENT**	**ACCOUNT**	**FISCAL 20-21**	**FISCAL 2022**	**FISCAL 2023**
227	**ACCOUNT NAME**	**NUMBER**	**APPROVED**	**APPROVED**	**APPROVED**
228			**BUDGET**	**BUDGET**	**BUDGET**
229					
230					
231	OPERATING EXPENSES				
232	Professional Services	402-0538-538.3100	10,000	10,000	10,000
233	Contractual Services	402-0538-538.3400	19,500	19,500	15,000
234	Travel & Per Diem	402-0538-538.4000	500	500	500
235	Communication Services	402-0538-538.4100	500	500	500
236	Mail & Freight	402-0538-538.4200	91	91	100
237	Rentals & Leases	402-0538-538.4400	6,500	6,500	15,000
238	Repair & Maintenance - Auto	402-0538-538.4610	5,000	5,000	1,000
239	Repair & Maintenance - Storm System	402-0538-538.4630	11,500	11,500	10,000
240	Printing & Binding	402-0538-538.4700	-	-	-
241	Office Supplies	402-0538-538.5100	485	485	500
242	Operating Supplies	402-0538-538.5210	6,000	6,000	4,041
243	Uniforms & Shoes	402-0538-538.5220	1,500	1,500	1,500
244	Gas & Oil	402-0538-538.5290	4,000	4,000	5,000
245	**Contingency**	402-0538-538.5800	8,669	23,021	4,997
246	Depreciation Stormwater	402-0538-538.5900			
247	Bad Debt Expense	402-0538-538.5500			
248					
249	**TOTAL OPERATING EXPENSES**		**74,245**	**88,597**	**68,138**
250					
251	CAPITAL OUTLAYS -				
252					
253					
254	Vehicle	402-0538-538.6420	23,384	25,000	15,000
255					
256					
257	**TOTAL CAPITAL OUTLAY**		**23,384**	**25,000**	**15,000**
258					
259	**TOTAL STORMWATER EXPENDITURES**		**219,336**	**219,336**	**219,336**
260	**FUND BALANCE**				
261	**(OVER/UNDER BUDGET)**				
262			**-**	**-**	**0**

	A	B	K	N	P
1					
2	**TOWN OF EATONVILLE**				
3	**FISCAL YEAR (FY) 2022 - 2023**				
4	**APPROVED GENERAL FUND BUDGET**				
5					
6					
7		**ACCOUNT**	**FY 20-21 APPROVED BUDGET**	**FY 21-22 APPROVED BUDGET**	**FY 22-23 APPROVED BUDGET**
8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
12					
13					
14					
15					
16					
17	**ESTIMATED REVENUES**				
18					
19	GENERAL FUND	FUND -001			
20	REVENUES				
21					
22	AD VALOREM TAXES				
23	Ad Valorem Taxes-Current	001-311.1000	$1,727,356	$1,765,817	$1,912,436
24					
25	**TOTAL AD VALOREM TAXES**		**$1,727,356**	**$1,765,817**	**$1,912,436**
26					
27	SALES AND USES TAXES				
28	Local Option Gas Tax	001-312.4100	$66,780	$68,595	$71,783
29					
30	**TOTAL SALES AND USES TAXES**		**$66,780**	**$68,595**	**$71,783**
31					
32	FRANCHISE FEES:				
33	Electric	001-323.4000	$392,688	$392,688	$401,000
34	Solid Waste	001-323.7000	$2,500	$2,500	$2,000
35					
36	**TOTAL FRANCHISE FEES**		**$395,188**	**$395,188**	**$403,000**
37					
38	UTILITY SERVICE TAXES				
39	Electric	001-314.1000	$410,000	$410,000	$453,600
40	Other Telecommunications	001-314.2000	$86,611	$86,611	$91,000
41	Water Utility Tax	001-314.3000	$60,000	$60,000	$65,000
42	Gas	001-314.4000	$4,000	$4,000	$5,000
43					
44	**TOTAL UTILITY SERVICE TAXES**		**$560,611**	**$560,611**	**$614,600**
45					
46	LICENSES AND PERMITS (CITY)				
47	Business Tax Licenses	001-316.0000	$16,000	$16,000	$16,000
48	Building Permits	001-322.0000	$40,000	$180,000	$300,000
49	Other Permits and Fees	001-329.0000	$9,000	$9,000	$50,000
50	Fire Safety Inspection	001-342.5000	$7,500	$7,500	$8,000
51	Linkage Fees			$100,000	$100,000
52					
53	**TOTAL LICENSES AND PERMITS**		**$72,500**	**$312,500**	**$474,000**
54					
55	STATE SHARED REVENUES				
56	State Revenue Sharing	001-335.1200	$103,717	$99,360	$119,581
57	Alcoholic Beverage Licenses	001-335.1500	$500	$500	$200
58	Half Cent Sales Tax	001-335.1800	$269,640	$237,244	$330,557
59	**TOTAL STATE SHARED REVENUES**		**$373,857**	**$337,104**	**$450,338**

	A	B	K	N	P
1					
2	**TOWN OF EATONVILLE**				
3	**FISCAL YEAR (FY) 2022 - 2023**				
4	**APPROVED GENERAL FUND BUDGET**				
5					
6					
7		**ACCOUNT**	**FY 20-21 APPROVED BUDGET**	**FY 21-22 APPROVED BUDGET**	**FY 22-23 APPROVED BUDGET**
8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
60					
61	COUNTY SHARED REVENUES				
62	Occupational Licenses	001-316.2000	$500	$500	$500
63					
64	**TOTAL COUNTY SHARED REVENUES**		**$500**	**$500**	**$500**
65					
66	CHARGES FOR SERVICES				
67	Eatonville Post Office	001-345.9001	$17,440	$17,440	$17,440
68	Recreation Program Fees	001-347.2100			
69	Other Gov't Charges & W/S Administrative Fees	001-341.9000	$55,000	$15,000	$20,000
70	**TOTAL CHARGES FOR SERVICES**		**$72,440**	**$32,440**	**$37,440**
71					
72	FINES AND FORFEITURES				
73	Court Fines	001-351.1000	$8,000	$8,000	$8,000
76	Code Violation Penalties	001-354.1000	$5,000	$5,000	$5,000
77	Parking Tickets	001-351.1100	$200	$200	$200
78	Seized Tags	001-342.9000	$200	$300	$300
79	Towing	001-342.9001	$2,000	$2,000	$2,000
80	**TOTAL FINES AND FORFEITURES**		**$15,400**	**$15,500**	**$15,500**
81					
82	MISCELLANEOUS REVENUES				
83	Summer Food Program	001-331.6200	$50,000	$50,000	$45,000
84	Federal Grants	001-331.9000	$10,000	$10,000	$30,000
85	Interest Earnings on Investment	001-361.0000	$200	$200	$200
87	Rental Income/DJC	001-362.0000	$2,000	$2,000	$10,000
88	Rental Income/Tower	001-362.1000	$27,469	$27,469	$27,469
91	Other Miscellaneous Revenue	001-369.0000	$3,000	$3,000	$3,000
93	Election Qualifying Fees	001-369.1000		$3,000	
94	Police - Off Duty Detail	001-369.0003	$10,000	$8,000	$8,000
95	Police Liaison-Orange County School	001-337.2001	$61,250	$61,250	$70,000
96	Library Rental	001-366.0000	$60,654	$60,654	$60,654
97	Martin Luther King Jr. -Event	001-361.1000			$26,648
98	Robert Woods Johnson Foundation	001-361.2000			$25,000
99	**TOTAL MISCELLANEOUS REVENUE**		**$224,573**	**$225,573**	**$305,971**
100					
101	OTHER FINANCING SOURCES & USES				
102	Forward Balance/Transfer		$342,406	$342,406	$446,929
103					
104	**TOTAL OTHER FINANCING SOURCES**		**$342,406**	**$342,406**	**$446,929**
105					
106	**TOTAL OPERATING REVENUE**		**$342,406**	**$342,406**	**$446,929**
107					
108					
109					
110	**TOTAL REVENUES**		**$3,851,611**	**$4,056,234**	**$4,732,497**

	A	B	K	N	P
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2	**TOWN OF EATONVILLE**				
3	**FISCAL YEAR (FY) 2022 - 2023**				
4	**APPROVED GENERAL FUND BUDGET**				
5					
6					
7		**ACCOUNT**	**FY 20-21 APPROVED BUDGET**	**FY 21-22 APPROVED BUDGET**	**FY 22-23 APPROVED BUDGET**
8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
111					
112					
113					
114	**LEGISLATIVE - 511**				
115	**EXPENDITURES**				
116					
117	PERSONAL SERVICES				
118	Salaries & Wages Regular	001-0511-511.1100	$39,564	$103,064	$94,564
119					
120					
121	**TOTAL SALARIES AND WAGES**		**$39,564**	**$103,064**	**$94,564**
122					
123	FICA Taxes 7.65%	001-0511-511.2100	$3,027	$7,884	$7,234
124	Retirement 5%	001-0511-511.2200		$3,175	$2,750
125	Health Insurance	001-0511-511.2300		$7,232	$9,333
126	Workers' Compensation	001-0511-511.2400	$1,909	$1,909	$2,500
127					
128	**TOTAL FRINGE BENEFITS**		**$4,936**	**$20,200**	**$21,817**
129					
130	**TOTAL PERSONAL SERVICES**		**$44,500**	**$123,264**	**$116,381**
131					
132	EXPENDITURES				
133	Professional Services	001-0511-511.3100	$5,000	$5,000	$5,000
134	Professional Services - **Clerk**	001-0511-511.3101			$4,000
135	Contractual Svcs-	001-0511-511.3400			$10,000
136	CRA-Town **TIF** Payment	001-0511-511.3410	$190,000	$224,190	$224,190
137	Travel & Per Diem - Mayor	001-0511-511.4000	$4,000	$4,000	$4,000
138	Travel & Per Diem - TC	001-0511-511.4001	$6,000	$6,000	$12,000
139	Travel & Per Diem - **Clerk**	001-0511-511.4002			$1,550
140	Communication Services	001-0511-511.4100	$3,600	$3,600	$4,000
141	Communication Services - **Clerk**	001-0511-511.4101			$500
142	Mail & Freight	001-0511-511.4200	$700	$700	$700
143	Mail & Freight - **Clerk**	001-0511-511-4201			$500
144	Rentals and Leases	001-0511-511.4700	$300	$300	$500
145	Printing and Binding	001-0511-511.4700	$2,000	$2,000	$2,000
146	Printing and Binding - **Clerk**	001-0511-511.4701			$1,000
147	Promotional Activities	001-0511-511.4800	$6,000	$6,000	$1,000
148	Community Event (Veterans)	001-0511-511.4802	$500	$500	$100
149	Legislative/Council Scholarship	001-0511-511.4801	$5,000	$5,000	$5,000
150	Legal Advertisement - **Clerk**	001-0511-511.4900			$10,000
151	Special Project - Council	001-0511-511.4902			
152	Office Supplies	001-0511-511.5100	$1,000	$1,000	$1,000
153	Office Supplies - Clerk	001-0511-511.5101			$1,500
154	Operating Supplies	001-0511-511-5210	$1,000	$1,000	$1,000
157	Operating Supplies - **Clerk**	001-0511-511.5211			$1,500
158	Books, Publications, Subscriptions -Mayor	001-0511-511.5400	$1,500	$1,500	$1,500
159	Books, Publications, Subscriptions - TC	001-0511-511.5401	$3,000	$3,000	$4,000
160	Books, Publications, Subscriptions - **Clerk**	001-0511-511.5403			$1,900
161	Registration - Mayor	001-0511-511.5402	$1,000	$1,000	$2,000
162	Registration - TC	001-0511-511.5403	$5,000	$5,000	$8,000
163	Registration - **Clerk**	001-0511-511.5404			$561
164	Contingency (Current Fiscal Year)	001-0511-511.5800	$240,910	**$227,349**	**$476,601**
165	Miscellaneous Expenses	001-0511-511.5900			
166					
167	**TOTAL OPERATING EXPENSES**		**$476,510**	**$497,139**	**$785,602**
168					
169	CAPITAL OUTLAYS				
170					
171	**TOTAL CAPITAL OUTLAYS**				

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2	**TOWN OF EATONVILLE**				
3	**FISCAL YEAR (FY) 2022 - 2023**				
4	**APPROVED GENERAL FUND BUDGET**				
5					
6					
7		**ACCOUNT**	**FY 20-21 APPROVED BUDGET**	**FY 21-22 APPROVED BUDGET**	**FY 22-23 APPROVED BUDGET**
8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
172					
173	**TOTAL LEGISLATIVE EXPENDITURES**		**$521,010**	**$620,403**	**$901,983**

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2	**TOWN OF EATONVILLE**				
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7		**ACCOUNT**	**FY 20-21 APPROVED BUDGET**	**FY 21-22 APPROVED BUDGET**	**FY 22-23 APPROVED BUDGET**
8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
174					
175					
219					
220	**EXECUTIVE/ADMIN.-512 EXPENDITURES**				
221					
222					
223	PERSONAL SERVICES				
224	Salaries	001-0512-512.1200	$115,368	$45,006	$40,000
225	Wages - Part Time	001-0512-512.1300			
226	Overtime	001-0512-512.1400			
227	**TOTAL SALARIES AND WAGES**		**$115,368**	**$45,006**	**$40,000**
228					
229	FRINGE BENEFITS				
230	FICA Taxes - 7.65%	001-0512-512.2100	$8,858	$3,443	$3,060
231	Retirement 5%	001-0512-512.2200	$4,923	$5,147	$2,000
232	Health & Life Insurance	001-0512-512.2300	$21,696	$14,464	$14,773
233	Workers' Compensation	001-0512-512.2400	$1,200	$1,200	$2,000
234	Unemployment Compensation	001-0512-512.2500	$2,000	$2,000	$2,000
235					
236	**TOTAL FRINGE BENEFITS**		**$38,677**	**$26,254**	**$23,833**
237					
238	**TOTAL PERSONAL SERVICES**		**$154,045**	**$71,260**	**$63,833**
239					
240	OPERATING EXPENSES				
241	Professional Services	001-0512-512.3100	$3,000	$4,000	$4,000
242	Contractual Services	001-0512-512.3400	$3,000	$3,000	$3,000
243	Travel & Per Diem	001-0512-512.4000	$1,500	$1,500	$3,000
244	Communication Services	001-0512-512.4100	$3,000	$3,000	$3,000
245	Mail & Freight	001-0512.512.4200	$1,200	$1,000	$1,000
246	Utility Services	001-0512-512.4300	$16,000	$14,000	$14,000
247	Rentals & Leases	001-0512-512.4400	$5,000	$4,000	$4,000
248	Insurance	001-0512-512.4500	$150,000	$150,000	$195,000
251	Printing & Binding	001-0512-512.4700	$1,200	$1,000	$3,000
252	Promotional Activities	001-0512-512.4800	$1,000	$1,000	$1,000
253	Legal Ads.	001-0512-512.4900	$13,000	$15,000	
254	Other Charges-ex. Election	001-0512-512.4915		$8,000	
255	Office Supplies	001-0512-512.5100	$2,000	$3,000	$5,000
256	Operating Supplies	001-0512-512.5210	$2,000	$5,000	$5,000
257	Gas & Oil	001-0512-512.5290	$1,200	$1,200	$1,200
258	Books, Publications, Subscriptions	001-0512-512.5400	$1,000	$1,500	$1,500
259					
260	**TOTAL OPERATING EXPENSES**		**$204,100**	**$216,200**	**$243,700**
261					
262	CAPITAL OUTLAYS				
263					
267	**TOTAL CAPITAL OUTLAYS**				
268					
269	**TOTAL ADMINISTRATION EXPENDITURES**		**$358,145**	**$287,460**	**$307,533**

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2	**TOWN OF EATONVILLE**				
3	**FISCAL YEAR (FY) 2022 - 2023**				
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5					
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7		**ACCOUNT**	**FY 20-21 APPROVED BUDGET**	**FY 21-22 APPROVED BUDGET**	**FY 22-23 APPROVED BUDGET**
8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
270					
271					
272	**FINANCE-513**				
273	**EXPENDITURES**				
274	PERSONAL SERVICES				
275	Salaries & Wages - Regular	001-0513-513.1200	**$163,804**	**$198,165**	**$212,470**
276					
277					
278	**TOTAL SALARIES AND WAGES**		**$163,804**	**$198,165**	**$212,470**
279					
280	FRINGE BENEFITS				
281	FICA Taxes- 7.65%	001-0513-513.2100	$12,531	$15,160	$16,254
282	Retirement -5%	001-0513-513.2200	$6,590	$6,920	$9,724
283	Health and Life Insurance	001-0513-513.2300	$30,629	$30,629	$37,331
284	Workers' Compensation	001-0513-513.2400	$865	$865	$1,200
285	Unemployment Compensation	001-0513-513.2500	$2,000	$2,000	$2,000
286	**TOTAL FRINGE BENEFITS**		**$52,615**	**$55,574**	**$66,508**
287					
288	**TOTAL PERSONAL SERVICES**		**$216,419**	**$253,739**	**$278,978**
289					
290	OPERATING EXPENSES				
291	Professional Services	001-0513-513.3100	$500	$500	$3,500
292	Accounting and Auditing	001-0513-513.3200	$35,000	$51,000	$65,000
293	Contractual Service	001-0513-513.3400	$30,000	$30,000	$45,000
294	Contractual Services-Payroll Services	001-0513-513.3411	$9,560	$10,000	$10,000
295	Travel & Per Diem	001-0513-513.4000	$1,000	$1,000	$3,000
296	Communication Services	001-0513-513.4100	$2,600	$2,600	$2,600
297	Mail & Freight	001-0513-513.4200	$1,500	$1,500	$1,500
298	Rentals & Leases	001-0513-513.4400	$1,500	$2,000	$2,000
300	Printing & Binding	001-0513-513.4700	$500	$500	$700
302	Bad Debt Expense	001-0513-513.4700			
303	Office Supplies	001-0513-513.5100	$1,500	$2,500	$2,500
304	Operating Supplies	001-0513-513.5210	$2,500	$2,500	$2,500
305	Books, Publications, Subscriptions, Regist.	001-0513-513.5400	$1,000	$1,000	$2,500
306	Equipment	001-0513-513.6450			
307					
308	**TOTAL OPERATING EXPENSES**		**$87,160**	**$105,100**	**$140,800**
309					
310	CAPITAL OUTLAYS				
311	New Technical (Wi-Fi, Computers/Conf. Systems				$10,000
312					
313	**TOTAL CAPITAL OUTLAYS**				**$10,000**
314					
315	**TOTAL FINANCE EXPENDITURES**		**$303,579**	**$358,839**	**$429,778**

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2	**TOWN OF EATONVILLE**				
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6					
7		**ACCOUNT**	**FY 20-21 APPROVED BUDGET**	**FY 21-22 APPROVED BUDGET**	**FY 22-23 APPROVED BUDGET**
8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
316					
317	**LEGAL COUNSEL-514 EXPENDITURES**				
318					
319					
320	OPERATING EXPENSES				
321	Professional Services	001-0514-514.3100	$40,000	$50,000	$100,000
322	Other Legal Services	001-0514-514.3400	$14,000	$14,000	$20,000
323	Town Council - Other Legal service	001-0514-514.4000	$8,000	$6,000	
324	Books, Publications, Subscriptions				
325					
326	**TOTAL LEGAL EXPENDITURES**		**$62,000**	**$70,000**	**$120,000**

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6					
7		**ACCOUNT**	**FY 20-21 APPROVED BUDGET**	**FY 21-22 APPROVED BUDGET**	**FY 22-23 APPROVED BUDGET**
8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
327					
328	**PLANNING AND COMMUNITY DEVELOPMENT - 515**				
329	**EXPENDITURES**				
330	PERSONAL SERVICES				
331	Salaries & Wages-Regular	001-0515-515.1200	$18,946	$5,868	$127,663
332					
333	**TOTAL SALARIES & WAGES**		**$18,946**	**$5,868**	**$127,663**
334					
335	FRINGE BENEFITS				
336	FICA Taxes - 7.65%	001-0515-515.2100	$1,449	$449	$9,766
337	Retirement 5%	001-0515-515.2200	$947	$352	
338	Health & Life Insurance	001-0515-515.2300	$15,315	$3,252	$18,665
339	Workers' Compensation	001-0515-515.2400	$2,000	$2,000	$2,000
340	Unemployment Compensation	001-0515-515.2500			
341					
342	**TOTAL FRINGE BENEFITS**		**$19,711**	**$6,053**	**$30,431**
343					
344	**TOTAL PERSONAL SERVICES**		**$38,657**	**$11,921**	**$158,094**
345					
346	OPERATING EXPENSES				
347	Professional Services	001-0515-515.3100	$8,000	$8,000	$40,000
348	Contractual Services	001-0515-515.3400	$30,000	$90,000	$75,000
349	Florida Main Street - Contract	001-0515.515-3401	$25,000	$25,000	
350	Contractual Svcs - Code Compliance	001-0515-515.3402	$40,800	$40,800	
351	Contractual Svcs - Planner	001-0515-515.3403		$55,692	
352	Travel & Per Diem	001-0515.515.4000	$2,000	$2,000	$3,000
353	Communication Services	001-0515-515.4100	$2,300	$2,300	$2,500
354	Mail & Freight	001-0515-515.4200	$1,000	$1,000	$3,500
355	Rentals & Leases	001-0515-515.4400	$4,000	$4,000	$4,000
356	Repair & Maintenance Auto	001-0515-515.4610	$2,000	$2,000	$2,000
357	Printing & Binding	001-0515-515.4700	$1,000	$1,000	$1,000
358	Legal Advertising	001-0515-515.4900	$8,000	$8,000	$20,000
359	Office Supplies	001-0515-515.5100	$500	$500	$2,500
360	Operating Supplies	001-0515-515.5210	$880	$880	$2,000
361	Uniforms	001-0515-515.5220	$500	$500	$2,000
362	Gas & Oil	001-0515-515.5290	$1,500	$1,500	$5,000
363	Books, Publications, Subscriptions	001-0515-515.5400	$1,150	$1,150	$2,300
364					
365	**TOTAL OPERATING EXPENSES**		**$128,630**	**$244,322**	**$164,800**
366					
367					
368	**TOTAL COMM. DEVELOP. EXPEND.**		**$167,287**	**$256,243**	**$322,894**

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8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
369					
370	**DEBT SERVICES EXPENDITURE - 517**				
371					
372	DEBT SERVICE-2000 Bond Issue				
373	Principal	001-0517-517.7100	$55,000	$50,000	$55,000
374	Interest	001-0517-517.7200	$25,000	$30,750	$32,000
375	Other Charges	001-0517-517.4915	$3,000	$5,000	$5,000
376	**TOTAL DEBT SERVICE EXPENDITURE**		**$83,000**	**$85,750**	**$92,000**

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8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
377					
378					
379					
380	**POLICE DEPARTMENT-521 EXPENDITURES**				
381					
382					
383	PERSONAL SERVICES				
384	Salaries & Wages - Regular	001-0521-521.1200	$664,258	$636,209	$704,707
385	Wages Part-time	001-0521-521.1300	$29,503	$30,028	$51,200
386	Wages Overtime	001-0521-521.1400	$35,000	$35,000	$35,000
387	001-0521-521.1401	001-0521-521.1401			
388	Incentive Pay	001-0521-521.1500	$7,800	$7,800	$7,800
389	Merit Incentive Pay	001-0521-521.1501			$10,000
390					
391	**TOTAL SALARIES & WAGES**		**$736,561**	**$709,037**	**$808,707**
392					
393	FRINGE BENEFITS				
394	FICA Taxes - 7.65%	001-0521-521.2100	$56,347	$61,905	$61,866
395	Retirement - Office Staff	001-0521-521.2200	$2,880	$4,002	$4,365
396	Police Officers Retirement	001-0521-521.2201	$20,000	$20,000	$20,000
397	Health & Life Insurance	001-0521-521.2300	$115,616	$115,616	$139,990
398	Workers' Compensation	001-0521-521.2400	$26,000	$26,000	$30,000
399	Unemployment Compensation	001-0521-521.2500	$2,000	$2,000	$2,000
400	**TOTAL FRINGE BENEFITS**		**$222,843**	**$229,523**	**$258,221**
401					
402	**TOTAL PERSONAL SERVICES**		**$959,404**	**$938,560**	**$1,066,928**
403					
404	OPERATING EXPENSES				
405	Professional Services	001-0521-521.3100	$10,000	$10,000	$10,000
406	Contractual Services	001-0521-521.3400	$85,000	$78,000	$80,000
407	Travel & Per Diem	001-0521-521.4000	$3,000	$2,000	$2,000
408	Communication	001-0521-521.4100	$10,000	$10,000	$10,000
409	Mail & Freight	001-0521-521.4200	$500	$500	$500
410	Utility Services	001-0521-521.4300	$16,000	$16,000	$12,000
411	Rental & Leases	001-0521-521.4400	$10,000	$20,000	$32,500
412	Repair & Maintenance-Auto	001-0521-521.4610	$18,000	$25,000	
413	Printing & Binding	001-0521-521.4700	$600	$600	$600
415	Legal Ads	001-0521-521.4900	$700	$700	$700
416	Alarm System Monitoring	001-0521-521.4910	$700	$700	$700
417	Office Supplies	001-0521-521.5100	$2,500	$2,500	$2,500
418	Operating Supplies	001-0521-521.5210	$15,200	$15,200	$15,200
419	Uniforms & Shoes	001-0521-521.5220	$5,300	$5,300	$5,300
420	Gas & Oil	001-0521-521.5290	$25,000	$30,500	$40,000
421	Books, Publications, Subscriptions	001-0521-521.5400	$1,000	$1,000	$1,000
422	Training	001-0521-521.5410	$4,000	$5,000	$10,000
423	**TOTAL OPERATING EXPENSES**		**$207,500**	**$223,000**	**$223,000**
424	CAPITAL OUTLAY				
426					
427	Improvements Other	001-0521-521.6300			
428	Vehicle	001-0521-521.6410			$50,000
429	Equipment (Grant)	001-0521-521.6420	$10,000	$10,000	$20,000
430	**TOTAL CAPITAL OUTLAYS**		**$10,000**	**$10,000**	**$20,000**
431					
432	**TOTAL POLICE EXPENDITURES**		**$1,176,904**	**$1,171,560**	**$1,309,928**

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2	**TOWN OF EATONVILLE**				
3	**FISCAL YEAR (FY) 2022 - 2023**				
4	**APPROVED GENERAL FUND BUDGET**				
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6					
7		**ACCOUNT**	**FY 20-21 APPROVED BUDGET**	**FY 21-22 APPROVED BUDGET**	**FY 22-23 APPROVED BUDGET**
8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
433					
434					
466					
467	**FIRE RESCUE-522**				
468	**EXPENDITURES**				
469					
470					
471	OPERATING EXPENSES				
472	Contractual Services	001-0522-522.3400	$312,538	$342,035	$390,945
473	**TOTAL OPERATING EXPENSES**		**$312,538**	**$342,035**	**$390,945**
474					
475					
476	**TOTAL FIRE EXPENDITURES**		**$312,538**	**$342,035**	**$390,945**

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2	**TOWN OF EATONVILLE**				
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7		**ACCOUNT**	**FY 20-21 APPROVED BUDGET**	**FY 21-22 APPROVED BUDGET**	**FY 22-23 APPROVED BUDGET**
8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
477					
478					
479	**PUBLIC WORKS-541**				
480	**EXPENDITURES**				
481	PERSONAL SERVICES				
482	Salaries & Wages- Regular	001-0541-541.1200	$26,696	$30,368	$36,236
483	Wages Part-time	001-0541-541.1300			
484	Wages Overtime	001-0541-541.1400			
485	Bonus			$3,000	
486					
487	**TOTAL SALARIES & WAGES**		**$26,696**	**$33,368**	**$36,236**
488					
489	FRINGE BENEFITS				
490	FICA Taxes -7.65%	001-0541-541-2100	$2,042	$2,323	$2,772
491	Retirement 5%	001-0541-541.2200	$279	$345	$1,812
492	Health & Life Insurance	001-0541-541.2300	$2,552	$2,552	$6,222
493	Workers' Compensation	001-0541-541.2400	$822	$822	$1,000
494	Unemployment Compensation	001-0541-541.2500			
495					
496	**TOTAL FRINGE BENEFITS**		**$5,695**	**$6,042**	**$11,806**
497					
498	**TOTAL PERSONAL SERVICES**		**$32,391**	**$39,410**	**$48,042**
499					
500	OPERATING EXPENSES				
501	Professional Services	001-0541-541.3100	$15,000	$15,000	$15,000
502	Contractual Services	001-0541-541.3400	$20,000	$20,000	$20,000
503	Contractual Svcs Building Maintenance	001-0541-541.3402			$25,000
504	Contractual Svc - (Town's ROW, Parks,Street)	001-0541-541.3403			$35,000
505	Contractual Svcs (Maint. All town Vehicles)				$38,000
506	Travel & Per Diem	001-0541-541.4000	$500	$500	$500
507	Communication Services	001-0541-541.4100	$2,200	$2,200	$2,200
508	Mail & Freight	001-0541-541.4200	$1,000	$1,000	$1,000
509	Utility Services	001-0541-541.4300	$105,000	$105,000	$105,000
510	Rental & Leases	001-0541-541.4400	$7,500	$7,500	$7,500
511	Repair & Maintenance	001-0541-541.4610	$3,000	$3,000	$3,000
512	Building repairs and Maintenance	001-0541-541.4611	$11,000	$11,000	$11,000
513	Repair & Maintenance - Other	001-0541-541.4620			
514	Printing & Binding	001-0541-541.4700	$500	$500	$500
515	Office Supplies	001-0541-541.5100	$1,400	$1,400	$1,400
516	Operating Supplies	001-0541-541.5210	$16,000	$16,000	$16,000
517	Uniforms & Shoes	001-0541-541.5220	$750	$750	$1,000
518	Gas & Oil	001-0541-541-5290	$1,500	$1,500	$1,500
519	Road Materials & Supplies	001-0541-541.5300	$30,000	$30,000	$50,000
520	Books, Publications, Subscriptions	001-0541-541.5400	$200	$200	$200
521	**TOTAL OPERATING SUPPLIES**		**$215,550**	**$215,550**	**$333,800**
522					
523	**CAPITAL OUTLAYS**				
524	Building Improvements	001-0541-541.6200			
525	Improvements Other	001-0541-541.6300			
526	Vehicle	001-0541-541.6410	$20,000		
527	Locate machine			$20,000	$20,000
528	Building Renovations			$300,000	
529	Lawn Equipment(s)		$15,000	$15,000	$15,000
530	**TOTAL CAPITAL OUTLAYS**		**$35,000**	**$335,000**	**$35,000**
531					
532	**TOTAL PUB. WORKS EXPENDITURES**		**$282,941**	**$589,960**	**$416,842**

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2	**TOWN OF EATONVILLE**				
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6					
7		**ACCOUNT**	**FY 20-21 APPROVED BUDGET**	**FY 21-22 APPROVED BUDGET**	**FY 22-23 APPROVED BUDGET**
8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
533					
534	**POST OFFICE - 550**				
535	**EXPENDITURES**				
536	PERSONAL SERVICES				
537	Wages Full - time	001-0550-550.1200	$18,398	$19,318	$23,400
538	Wages Part-time	001-0550-550.1300			
539	Overtime	001-0550.550.1400			
540	**TOTAL SALARIES AND WAGES**		**$18,398**	**$19,318**	**$23,400**
541					
542	FRINGE BENEFITS				
543	FICA Taxes - 7.65%	001-0550-550.2100	$1,407	$1,478	$1,790
544	Retirement 5%	001-0550-550.2200			$1,170
545	Health & Life Insurance	001-0550-550.2300			$9,333
546	Workers' Compensation	001-0550-550.2400	$84	$84	$100
547	Unemployment Compensation	001-0550-550.2500			
548					
549	**TOTAL FRINGE BENEFITS**		**$1,491**	**$1,562**	**$12,393**
550					
551	**TOTAL PERSONAL SERVICES**		**$19,889**	**$20,880**	**$35,793**
552					
553	OPERATING EXPENSES				
554	Contractual Services	001-0550-550.3400	$2,000	$2,000	$2,500
555	Communication	001-0550-550.4100	$800	$800	$800
556	Utility Services	001-0550-550.4300	$2,800	$2,800	$3,100
557	Rentals & Leases	001-0550-550.4400			
558	Repairs & Maintenance	001-0550-550.4600			
559	Office Supplies	001-0550-550.5100			
560	Promotional Activities	001-0550-550.4800			
561	Operating Supplies	001-0550-550.5210	$1,500	$2,000	
562	**TOTAL OPERATING EXPENSES**		**$7,100**	**$7,600**	**$6,400**
563					
564	**TOTAL POST OFFICE EXPENDITURES**		**$26,989**	**$28,480**	**$42,193**

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8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
565					
566					
567					
568	**SUMMER FOOD - 560 EXPENDITURES**				
569					
570	PERSONAL SERVICES				
571	Wages Part-time	001-0560-560.1300	$16,860	$16,860	$16,860
572					
573	**TOTAL SALARIES AND WAGES**		**$16,860**	**$16,860**	**$16,860**
574					
575	FRINGE BENEFITS				
576	FICA Taxes - 7.65%	001-0560-560.2100	$1,319	$1,319	$1,319
577	Workers' Compensation	001-0560-560.2400	$500	$500	$500
578					
579	**TOTAL FRINGE BENEFITS**		**$1,819**	**$1,819**	**$1,819**
580					
581	**TOTAL PERSONAL SERVICES**		**$18,679**	**$18,679**	**$18,679**
582					
583	OPERATING EXPENSES				
584	Operating Supplies	001-0560-560.5210	$27,115	$27,115	$27,115
585	**TOTAL OPERATING EXPENSES**		**$27,115**	**$27,115**	**$27,115**
586					
587	**TOTAL SUMMER FOOD EXPENDITURES**		**$45,794**	**$45,794**	**$45,794**
588					

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8	**ACCOUNT NAME**	**NUMBER**			
9					
10			**7.2938**	**7.2938**	**7.2938**
589	**COMMUNITY & YOUTH SVCS. DEPT. - 572 EXPENDITURES**				
590					
592	PERSONAL SERVICES				
593	Salaries & Wages - Regular	001-0572-572.1200	$28,500	$31,500	$35,360
594	Wages Part-time	001-0572-572.1300	$16,389	$20,000	$54,600
595					
596	**TOTAL SALARIES & WAGES**		**$44,889**	**$51,500**	**$89,960**
597					
598	FRINGE BENEFITS				
599	FICA Taxes - 7.65%	001-0572-572.2100	$3,434	$3,940	$6,882
600	Retirement 5%	001-0572-572.2200	$1,425		$1,768
601	Health & Life Insurance	001-0572-572.2300	$7,657	$7,657	$9,333
602	Workers' Compensation	001-0572-572.2400	$5,374	$5,374	$6,000
603	Unemployment Compensation	001-0572-572.2500	$1,000	$1,000	$1,000
604					
605	**TOTAL FRINGE BENEFITS**		**$18,890**	**$17,971**	**$24,983**
606					
607	**TOTAL PERSONAL SERVICES**		**$63,779**	**$69,471**	**$114,943**
608					
609					
610	OPERATING SERVICES				
611	Professional Services	001-0572-572.3100	$2,100	$2,100	$7,000
612	Contractual Services	001-0572-572.3400	$35,000	$25,000	$35,000
613	Contractual Services	001-0572-572.3402			
614	Travel & Per Diem	001-0572-572.4000	$440	$440	$3,000
615	Communication Services	001-0572-572.4100	$3,500	$3,500	$4,500
616	Mail & Freight	001-0572-572.4200	$1,500	$1,500	$2,500
617	Utility Services	001-0572-572.4300	$25,000	$25,000	$30,000
618	Rentals & Leases	001-0572-572.4400	$7,000	$7,000	$10,000
619	Maintenance - Building	001-0572-572.4600	$6,000	$6,000	$25,000
620	Repair & Maintenance -AUTO/OTHERS	001-0572-572.4610	$2,000	$2,000	$4,000
621	Printing & Binding	001-0572-572.4700	$1,000	$1,000	$2,000
622	Promotional Activities	001-0572-572.4800	$5,000	$5,000	$7,500
623	Office Supplies	001-0572-572.5100	$2,000	$2,000	$5,000
624	Operating Supplies	001-0572-572.5210	$5,000	$5,000	$8,000
625	Uniforms	001-0572-572.5220	$500	$500	$1,000
626	Gas & Oil	001-0572-572.5290	$3,500	$3,500	$5,000
627	Books, Publications, Subscriptions	001-0572-572.5400	$200	$200	$500
628	Senior Activities	001-0572-572.5600	$5,500	$5,500	$7,000
629	Training	001-0572-572.5410			$5,000
630	Youth Activities	001-0572-572.5601		$10,000	$12,000
631	Building Improvements	001-0572-572.6200			$15,000
632	**TOTAL OPERATING EXPENSES**		**$105,240**	**$105,240**	**$189,000**
633					
634	CAPITAL OUTLAYS				
635	Improvements Other	001-0572-572.6300			
636	Playground	001-0572-572.6450			
637					
638	**TOTAL CAPITAL OUTLAYS**				
639					
640	**TOTAL COMMUNITY & YOUTH EXPEND.**		**$169,019**	**$174,711**	**$303,943**

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9					
10			**7.2938**	**7.2938**	**7.2938**
641					
642	**SPECIAL EVENTS - 574 EXPENDITURES**				
643					
644	OPERATING EXPENSES				
645					
646	Other Miscellanous expense - MLK	001-0574-574.4900			$23,665
647	Other Miscellanous expense - RWJF	001-0574-574.4901			$25,000
648					
649	**TOTAL OPERATING EXPENSES**				**$48,665**
650					
651					
652					
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10			**7.2938**	**7.2938**	**7.2938**
656					
657	**GENERAL FUND REVENUES**	**FYI ONLY**	**$3,851,611**	**$4,056,234**	**$4,732,497**
658	**FUND BALANCE**				
659	**TOTAL GEN. FUND EXPENDITURES**		**$3,509,205**	**$4,031,234**	**$4,732,497**
660					
661	**OVER/UNDER BUDGET GENERAL FUND**		**$342,406**	**$25,000**	**$0**