

Wastewater Treatment Plans

And

**Onsite Sewage Treatment and Disposal System
Remediation Plan**

for



Putnam County Public Works

223 Putnam County Blvd
East Palatka, FL 32131

DRAFT PLANS

March 1, 2024

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Introduction

As required by the Florida Department of Environmental Protection (FDEP), Putnam County Public Works has compiled the attached Wastewater Treatment and Onsite Sewage Treatment and Disposal System (OSTDS) Remediation Plans. The information contained herein applies to systems under the jurisdiction of Putnam County Public Works and does not include systems under other, incorporated jurisdictions (such as City of Palatka).

Putnam County currently operates 2 Wastewater Treatment Facilities (WWTF). A wastewater project is currently ongoing to remove the Port Buena Vista WWTF from operation and route collected sewage to the Gilbert Road WWTF, which will be the only facility operated by Putnam County. Additional collection system expansion projects are nearing construction. With these expansions, Putnam County will be able to provide collection for properties currently served by OSTDS.

At the time of creating these plans, some information relating to OSTDS has been requested, but not received from the Florida Department of Health. Once received, this information will be incorporated into the completed plans.

Wastewater Treatment Plan

Name of Facility	Gilbert WWTP		
Facility ID	FLA667757		
Permitted Capacity	.300	MGD	Limited to .240 @RIBs
Permitted TN Limit	N/A	Lb/yr	
Permitted TP Limit	N/A	Lb/yr	

Annual TN and TP Loads:

Year	TN Load (lb/yr)	TP Load (lb/yr)
2023	56.72	65.22
2022	85.24	64.86
2021	59.95	65.22
2020	46.49	50.06
2019	55.7	49.5

Capacity Analysis

This facility is currently operating at approximately 45% capacity. An estimate of future inflow for the next 20 years is highly dependent on population growth of the County and the availability of funding for septic to sewer conversion projects. Based on current trends, an estimate of approximately 1,000 EDU's is expected to be connected over the next 5 years.

Required facility upgrades

Currently no upgrades are required or proposed within the next 5 years. Future growth may require expansion, but there are currently no plans for expansion for the next 20 years.

Required expansion/upgrade	Estimated Cost
N/A	N/A

Proposed Improvements

Proposed Improvement	Estimated Start Date	Estimated Date of Operation
Installation of 2 addition TPs	Undetermined	

Wastewater Treatment Plan

Name of Facility	Port Buena Vista WWTP		
Facility ID	FL0042617		
Permitted Capacity	.015	MGD	
Permitted TN Limit	855.68	Lb/yr	
Permitted TP Limit	58.55	Lb/yr	

Annual TN and TP Loads:

Year	TN Load (lb/yr)	TP Load (lb/yr)
2023	514.99	36.25
2022	332.14	41.55
2021	311.55	34.01
2020	231.99	19.81
2019	288.92	33.48

Capacity Analysis

This facility is currently operating at approximately 66.6% capacity. No additional EDUs will be added to this facility.

Required facility upgrades

None.

Proposed Improvements

This facility will be replaced by a lift station transferring sewage to the Gilbert Road WWTF. The forcemain extension is complete and the lift station is projected to be operational by April 2024. Once the lift station is operational and cleared with FDEP, this facility will be offline and removed by September 2024.

OSTDS Remediation Plan

Introduction

Due to the rural nature of Putnam County, the majority of properties are served by Onsite Sewage Treatment and Disposal Systems (OSTDS). Incorporated areas and some planned developments are served with wastewater treatment facilities with a relatively small coverage areas. The Putnam County Gilbert Road facility serves the East Palatka and San Mateo areas. Ongoing projects in East Putnam County will expand coverage of the Gilbert Road plant and will allow septic to sewer conversion along Dunns Creek and along the St Johns River.

Inventory

The Florida Department of Health in Putnam County is responsible for permitting and maintaining records of all OSTDS within Putnam County. Putnam County has requested inventory information and will include with this remediation plan once received.

Future Growth

Based on census growth data for Putnam County, the annual increase of population is approximately 1%, or approximately 700 people per year. At present, it is expected that approximately 50 EDU's per year will utilize new OSTDS. Significant developments, such as subdivisions, will be required to provide connection to the County's sewer system or to provide an alternative treatment system.

Septic to Sewer Conversion

Ongoing and future projects within Putnam County are being implemented to provide sewer connections to residential areas currently served by OSTDS. These projects include significant extension of sewer forcemains, allowing for future connection to properties fronted by the new sewer lines. It is expected as new properties are developed in these areas and as OSTDS reach end of life, that more septic systems will be removed. Following are ongoing projects that facilitate the removal of OSTDS:

Project Name	EDU's Removed	Cost	Completion Date
Port Buena Vista Sewer	50	\$1.4M	April 2024
Phase IV Septic to Sewer	320	\$4.6M	June 2025
Rio Vista Septic to Sewer	15	\$400,000	February 2025

Based on the current project costs, the expected cost to facilitate removal of 1 EDU served by OSTDS is \$20,000 - \$30,000. This cost per EDU should decrease as the infrastructure is expanded. However, the ability to expand is highly dependent on the availability of funding from grants and available revenue from customer fees.

OSTDS Upgrades

Most of the properties served by OSTDS in the County are larger than the threshold requiring immediate upgrade to nutrient reducing systems. The Florida Department of Health office in Putnam County is responsible for directing the upgrading of OSTDS to include nutrient reduction. Information on required upgrades will be included in this plan once received from FDOH.