

# 180 Ave Package Plant Abatement Project

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Dunnellon Wastewater Plant



# Projects Submitted for FY 2021 Funding

## **Applicant Priority:**

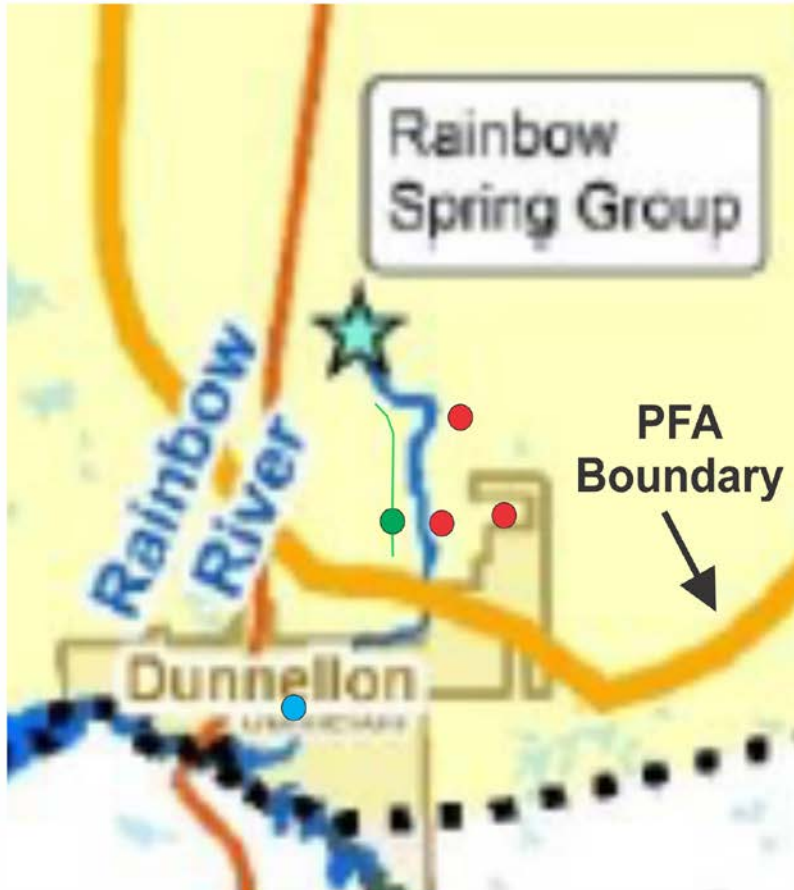
1. Rainbow River & Rio Vista Septic to Sewer Project
2. 180th Ave Package Plant Abatement Project
3. Burkitt Road Septic to Sewer Project



# Proximity to BMAP and PFA



Project locations in Primary Focus Area



- 180 Ave Package Plant Locations
- Rainbow - Rio Vista Area
- Burkitt Road Area



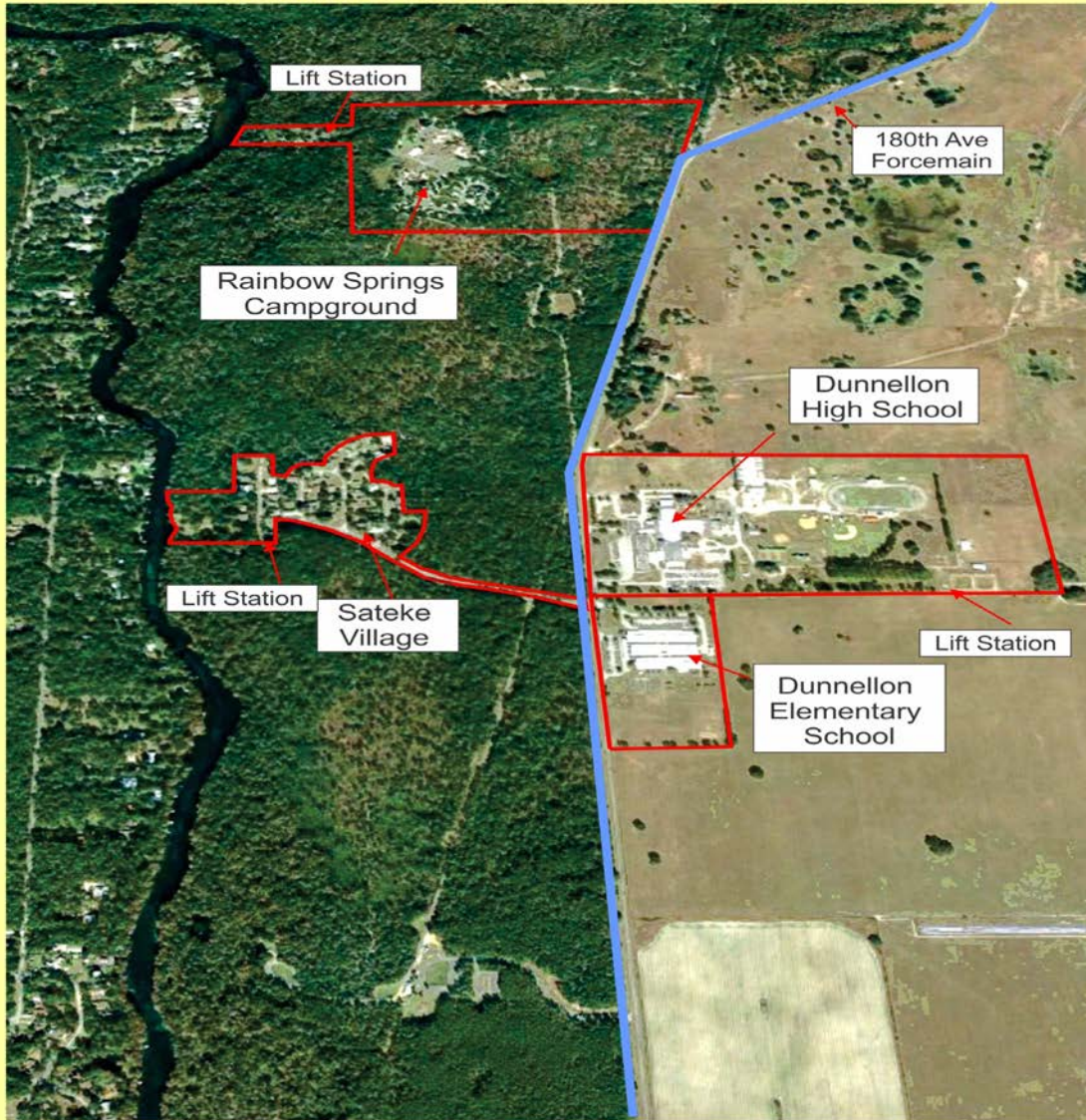
# 180th Ave Package Plant Abatement Project

- Design, Permitting and Construction of three lift stations and Forcemains to connect to 180 Ave Forcemain and Dunnellon Plant
- Three Package Plants will be decommissioned
- Funding request includes connection fees and land acquisition
- Project to benefit Rainbow Springs
- Located within Rainbow Springs Group BMAP area
- Located within Rainbow Springs PFA
- Project start 2020
- Project Completion 2021



# 180th Ave Package Plant Abatement Project

180th Ave Package Plant Abatement Area Plan





# 180th Ave Package Plant Abatement Project

180 Ave Composit three package abatement cost estimate

	Unit	Quant	Unit Price	Total
1 Decommission Wastewater P	1	3	\$ 100,000	\$ 300,000
2 Lift Station High School	1	1	\$ 81,000	\$ 81,000
3 Lift Station Campground	1	1	\$ 45,000	\$ 45,000
4 Lift Station Sateke Village	1	1	\$ 45,000	\$ 45,000
5 PVC Forcemain Highschool	1	2960	\$ 25	\$ 74,000
6 PVC Forcemain Campground	1	2200	\$ 25	\$ 55,000
7 PVC Forcemain Sateke	1	1850	\$ 25	\$ 46,250
<b>Subtotal</b>				<b>\$ 646,250</b>
			Survey/Design	\$ 96,938
			Contract Management	\$ 38,775
			Inspection	\$ 32,313
			Contract Administration	\$ 32,313
<b>Esstimate cost</b>				<b>\$ 846,589</b>

Length of new forcemain

PVC Forcemain Highschool 2960

PVC Forcemain Camp ground 2200

PVC Forcemain Sateke 1850

**Forcemain Total 7010 feet**



# 180th Ave Package Plant Abatement Project

## Composite Package Plant Load to Ground Water

- Three Package Plant with flow rate of 0.0248 mgd
- Recharge Factor 0.9
- Attenuation Factor (RIB) 0.75
- 329 lbs of TN/Year to Ground Water

## City WWTO Plant Efficiency

- 2.975 mg/L of Nitrogen Discharge
- 0.0248 mg/day flow from package plants
- Recharge Factor 0.5
- Attenuation Factor 0.4 (Sprayfield)
- 45 lbs of TN/ Year to Ground Water

## Cost Effectiveness for 30 year Period

- 284 lbs of TN/year removed from Spring Shed
- Project Cost \$847,000
- \$99.44 per lb of TN removed

# Status of Current FGUA Projects

- Status of Dunnellon WWTP Rerating and Spray field analysis to be completed in April 2020
- Rainbow Spring decommissioning project and new forcemain routing is currently in the Design and Permitting phase with Construction to be completed first quarter of 2021
- Status on the current 180<sup>th</sup> Ave Forcemain project. Design is complete with Construction to be completed in last quarter of 2020