

Kimley»»Horn

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Springs Initiative
Grant
Application by
Crystal River

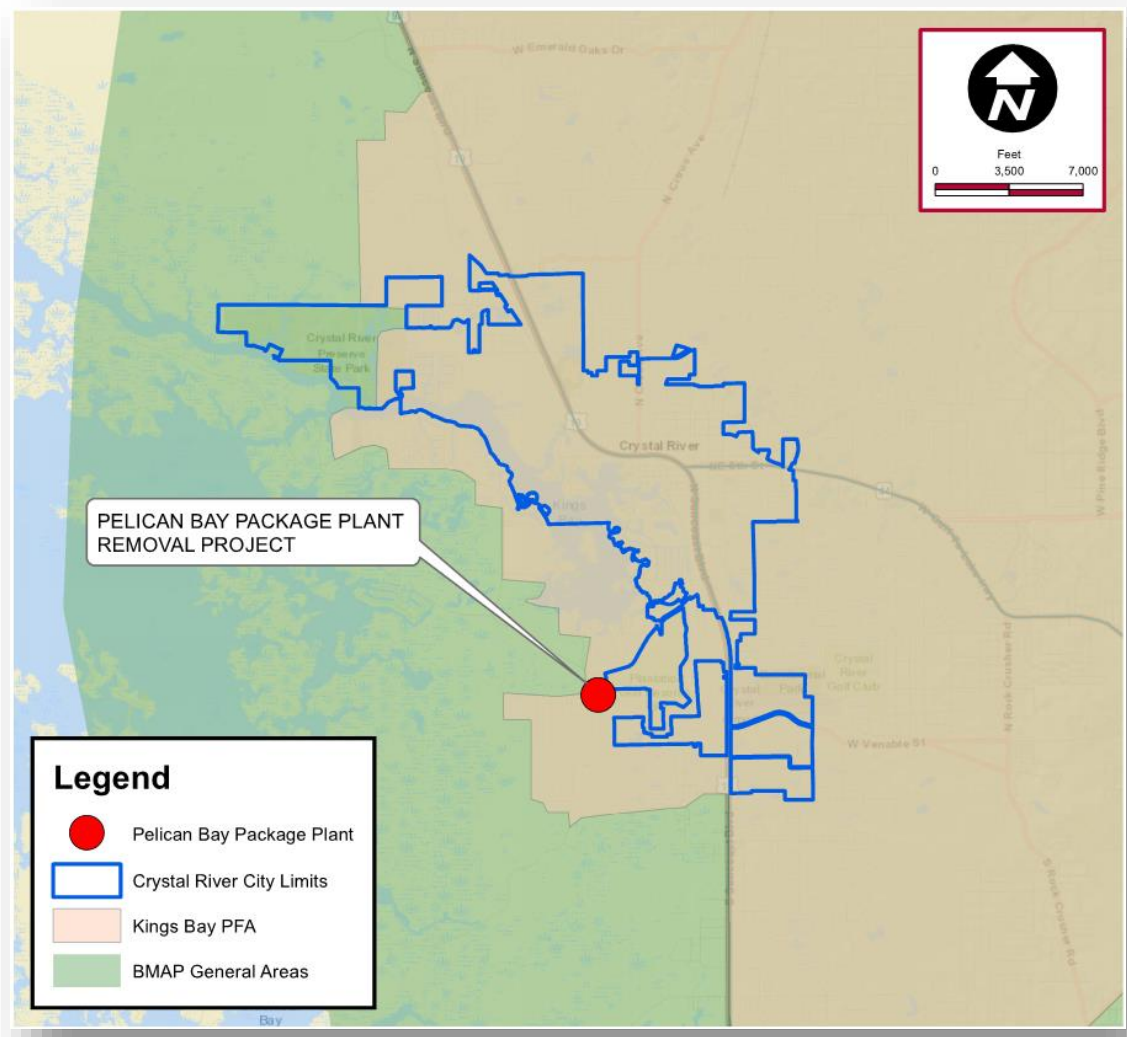


Pelican Bay Package Plant Removal

Project Description:

- The existing package plant will be taken out of service.
- Upgrade the existing lift station and connect to the existing forcemain stub-out.
- Approximately 91 residential sewer connections.
- Residents are low income.
- Funding request includes connection fees.
- Project to benefit Kings Bay
 - Located within PFA for Kings Bay
 - 0.6 miles from Kings Bay
- Project Start: 2021
- Project Completion: 2022

Project Proximity to BMAP and PFA



Pelican Bay Package Plant Removal



Pelican Bay Package Plant Removal OPC

Seeking funding for 100% of total project cost = \$440,000

COST ESTIMATE FOR GRANT APPLICATION					
CITY OF CRYSTAL RIVER					
PELICAN BAY PACKAGE PLANT REMOVAL PROJECT					
ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	PELICAN BAY PACKAGE PLANT DECOMMISSIONING, LIFT STATION UPGRADE, FORCEMAIN CONNECTION, CONNECTION FEES	1	LS	\$ 50,000	\$ 50,000
2	LIFT STATION UPGRADE	1	LS	\$ 40,000	\$ 40,000
3	FORCEMAIN CONSTRUCTION	50	LF	\$ 5,000	\$ 5,000
4	CONNECTION FEES	91	EA	\$ 3,425	\$ 311,675
5	DESIGN, PERMITTING, BID ADMINISTRATION, AND CONSTRUCTION ADMINISTRATION	1	LS	\$ 33,325	\$ 33,325
				TOTAL	\$ 440,000

Pelican Bay Package Plant Removal

- **Package Plant Load to Ground Water**
 - Annual Average TN = 5.9 mg/l
 - Actual Annual Average Flow = 0.007 mgd
 - 0.75 Attenuation Multiplier
 - 0.5 Recharge Factor
 - 47.0 lbs. of TN/Year to Ground Water
- **City's WWTP Plant Efficiency**
 - 3.9 mg/l of Nitrogen-Discharge Concentration
 - 7,000 GPD Flow from Package Plant
 - 0.75 Attenuation Multiplier
 - 0.0 Recharge Factor – All of the City's reclaimed water is received by Duke Power
 - 0.0 lbs. of TN/Year to Ground Water
- **Cost Effectiveness for 30 year period**
 - 47 lbs. of TN/Year removed Spring Shed
 - Project cost = \$440,000
 - \$310.91 per lb. TN removed over 30 years.

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