

Kimley»Horn

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Springs Initiative Grant Application by The City of Inverness

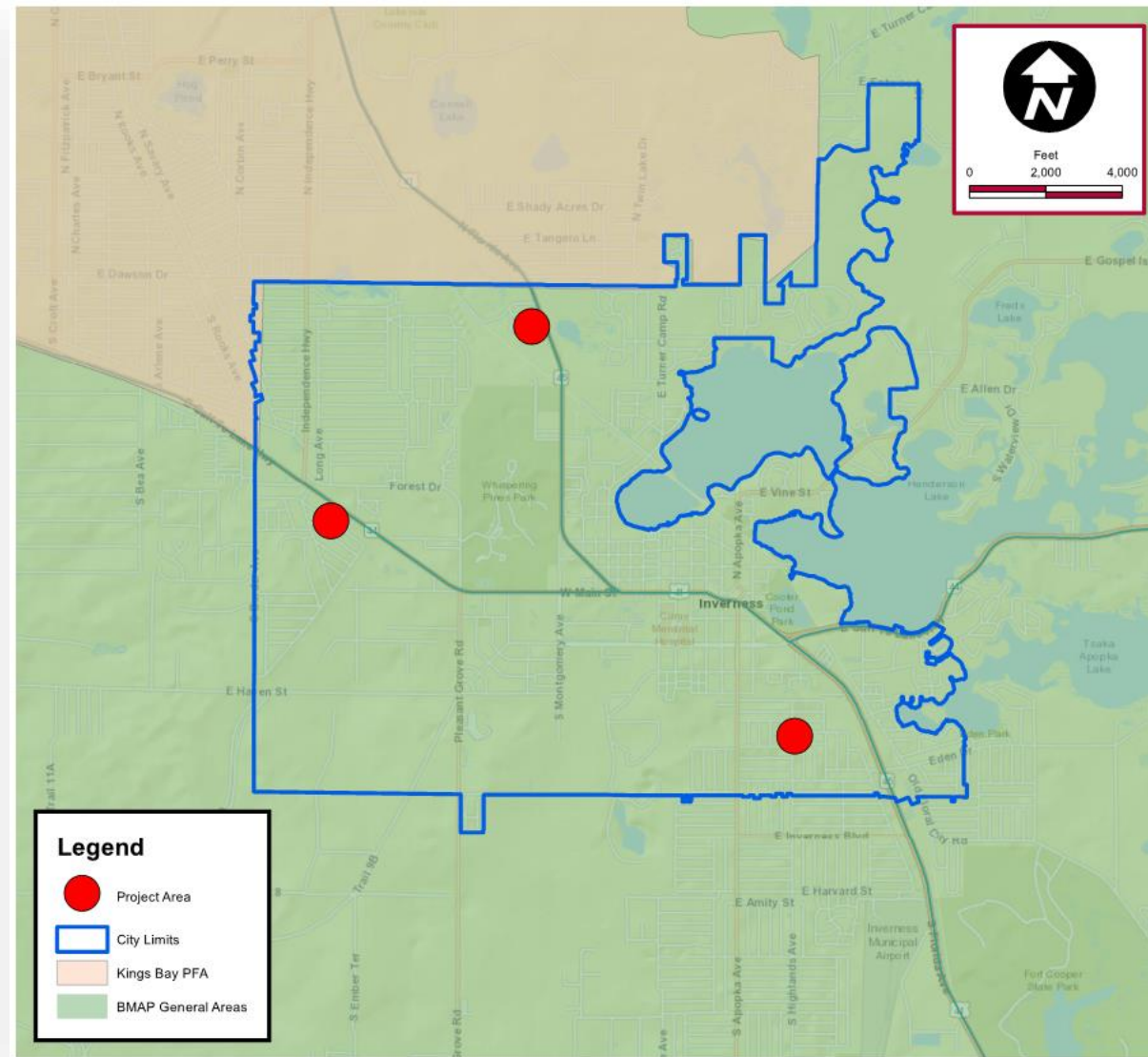


Projects Submitted for FY2021 Funding

Applicant Priority:

1. South Highlands Septic to Sewer Project
2. 44 West Sewer Extension Project
3. 41 N Sewer Extension Project

Project Proximity to BMAP and PFA

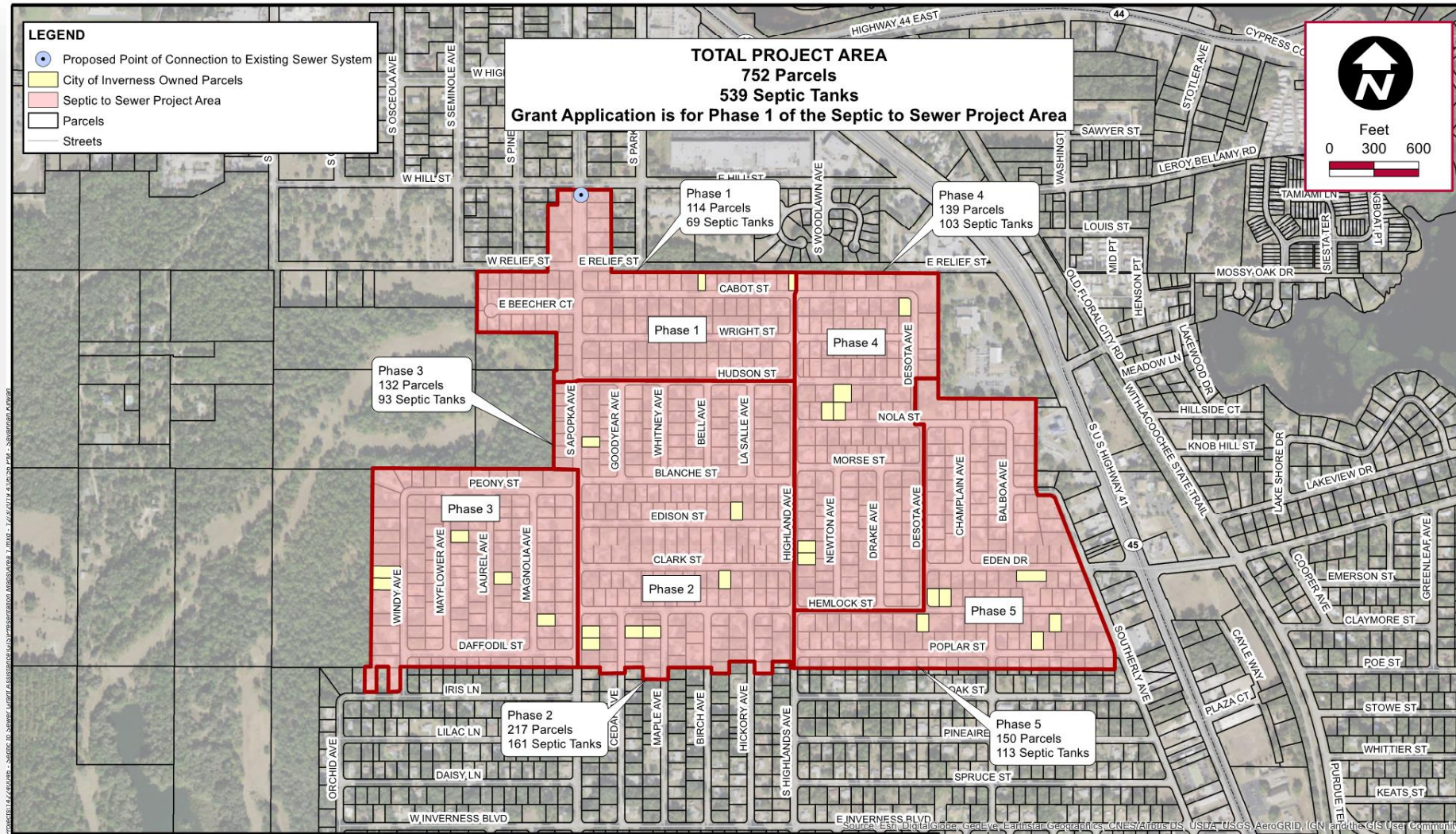


South Highlands Septic to Sewer Project

Project Description:

- Multi-Year project with 5 phases total. This application is for Phase 1
- Design, Permitting and Construction of sanitary sewer system to serve Phase 1 of the South Highlands Project Area
- Phase 1 contains 114 Parcels with 69 OSTDS to be removed from service
- Funding request includes connection fees and land acquisition
- Project to benefit Chassahowitzka-Homosassa Springs
 - Located within Chassahowitzka-Homosassa Springs Group BMAP
- Project Start: 2021
- Project Completion: 2023

South Highlands Septic to Sewer Project



South Highlands Septic to Sewer OPC

Seeking funding for 80% of the total project cost

COST ESTIMATE FOR GRANT APPLICATION					
CITY OF INVERNESS					
SOUTH HIGHLANDS SEPTIC TO SEWER PROJECT					
ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	RESIDENT SEPTIC TANK ABANDONMENT AND CONNECTION TO SEWER	69	EA	\$ 8,000	\$ 552,000
2	GRAVITY SEWER (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	7,250	LF	\$ 120	\$ 870,000
3	FORCEMAIN (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	3,800	LF	\$ 100	\$ 380,000
4	LIFT STATION	2	EA	\$ 400,000	\$ 800,000
5	PROPERTY ACQUISITION	1	LOT	\$ 35,000	\$ 35,000
6	ROADWAY	1.40	MI	\$ 450,000	\$ 630,000
				TOTAL \$	3,267,000

South Highlands Septic to Sewer Project

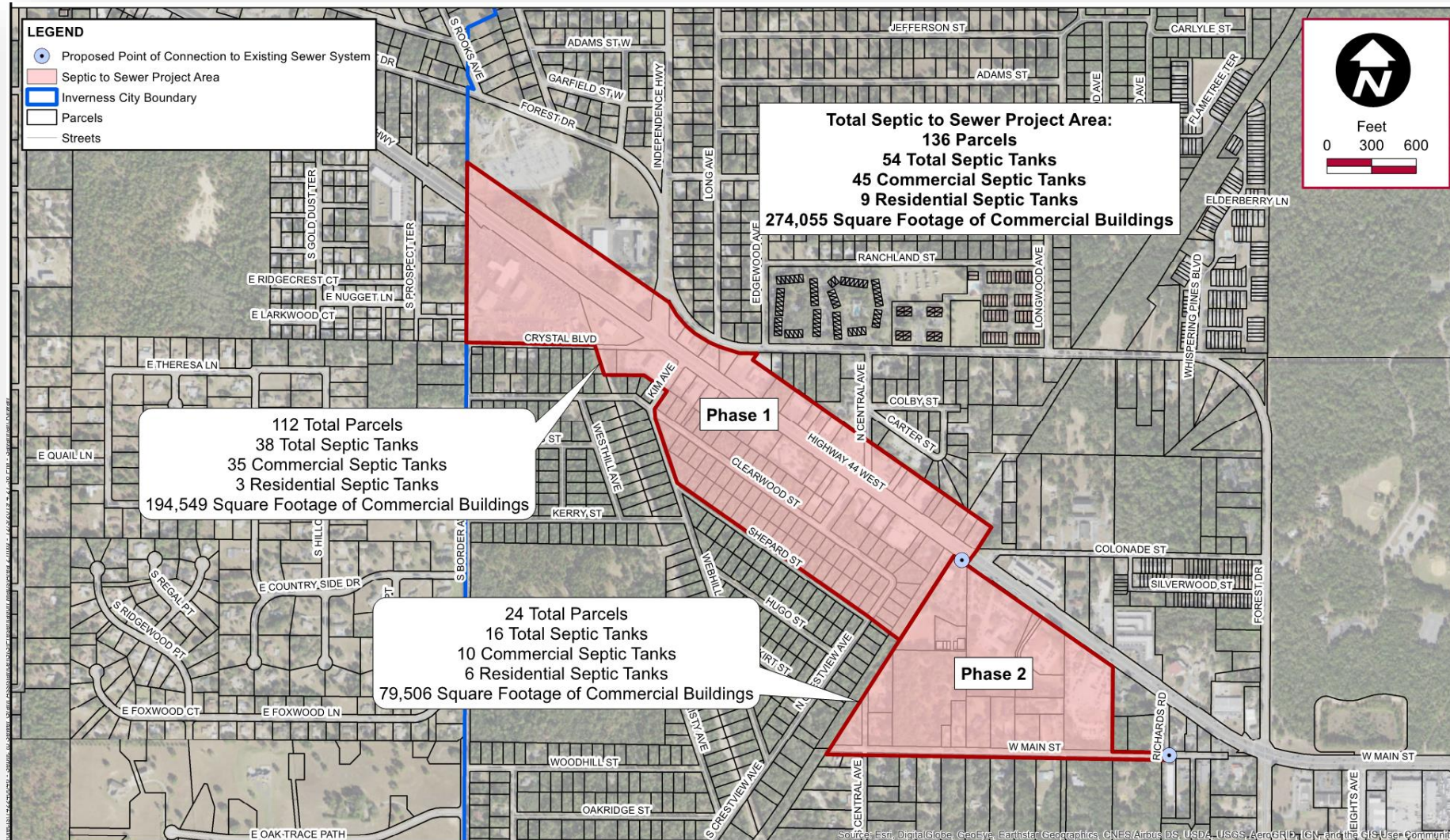
- **Septic Tank Load to Ground Water**
 - 69 Septic tanks
 - 23.7 lbs. of TN/Year/Septic Tank
 - 0.5 Attenuation Multiplier
 - 0.9 Recharge Factor
 - 736.0 lbs. of TN/Year to Ground Water
- **City's WWTP Plant Efficiency**
 - 3 mg/l of Nitrogen-Discharge Concentration per FDEP Methodology
 - 0.4 Attenuation Multiplier
 - 0.9 Recharge Factor
 - 41.0 lbs. of TN/Year to Ground Water
- **Cost Effectiveness for 30 year period**
 - 695 lbs. of TN/Year removed Spring Shed
 - Project cost = \$3,267,000
 - \$156.76 per lb. TN removed

44 West Sewer Extension Project

Project Description:

- Design, Permitting and Construction of sanitary sewer system to serve the project area
- 136 parcels with 54 OSTDS to be removed from service.
 - 45 commercial OSTDS
- Funding request includes connection fees and land acquisition
- Project to benefit Chassahowitzka-Homosassa Springs
 - Located within Chassahowitzka-Homosassa Springs Group BMAP
- Project Start: 2021
- Project Completion: 2023

44 West Sewer Extension Project



44 West Sewer Extension Project

Seeking funding for 80% of total project cost

COST ESTIMATE FOR GRANT APPLICATION					
CITY OF INVERNESS					
44 WEST SEWER EXTENSION PROJECT					
ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	SEPTIC TANK ABANDONMENT AND CONNECTION TO SEWER	54	EA	\$ 8,000	\$ 432,000
2	GRAVITY SEWER (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	4,100	LF	\$ 120	\$ 492,000
3	FORCE MAIN (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	2,200	LF	\$ 100	\$ 220,000
4	LIFT STATION UPGRADE	2	EA	\$ 400,000	\$ 800,000
5	PROPERTY ACQUISITION	2	LOT	\$ 35,000	\$ 70,000
6	ROADWAY	0.77	MI	\$ 450,000	\$ 346,500
				TOTAL	\$ 2,360,500

44 West Sewer Extension Project

- **Residential Septic Tank Load to Ground Water**
 - 9 Septic Tanks
 - 23.7 lbs. of TN/Year/Septic Tank
 - 0.5 Attenuation Multiplier
 - 0.9 Recharge Factor
 - 96 Total lbs. of TN/Year to Ground Water
- **Commercial Septic Tank Load to Ground Water**
 - 45 Septic Tanks
 - 274,055 SF of Buildings
 - 15 gpd/100 SF of sewage generated from commercial applications –FAC 64E6.008
 - 41,108 GPD of wastewater flow from commercial tanks
 - 250 GPD per ERU
 - 164 ERUs for commercial tanks
 - 1,754 Total lbs. of TN/Year to Ground Water

44 West Sewer Extension Project

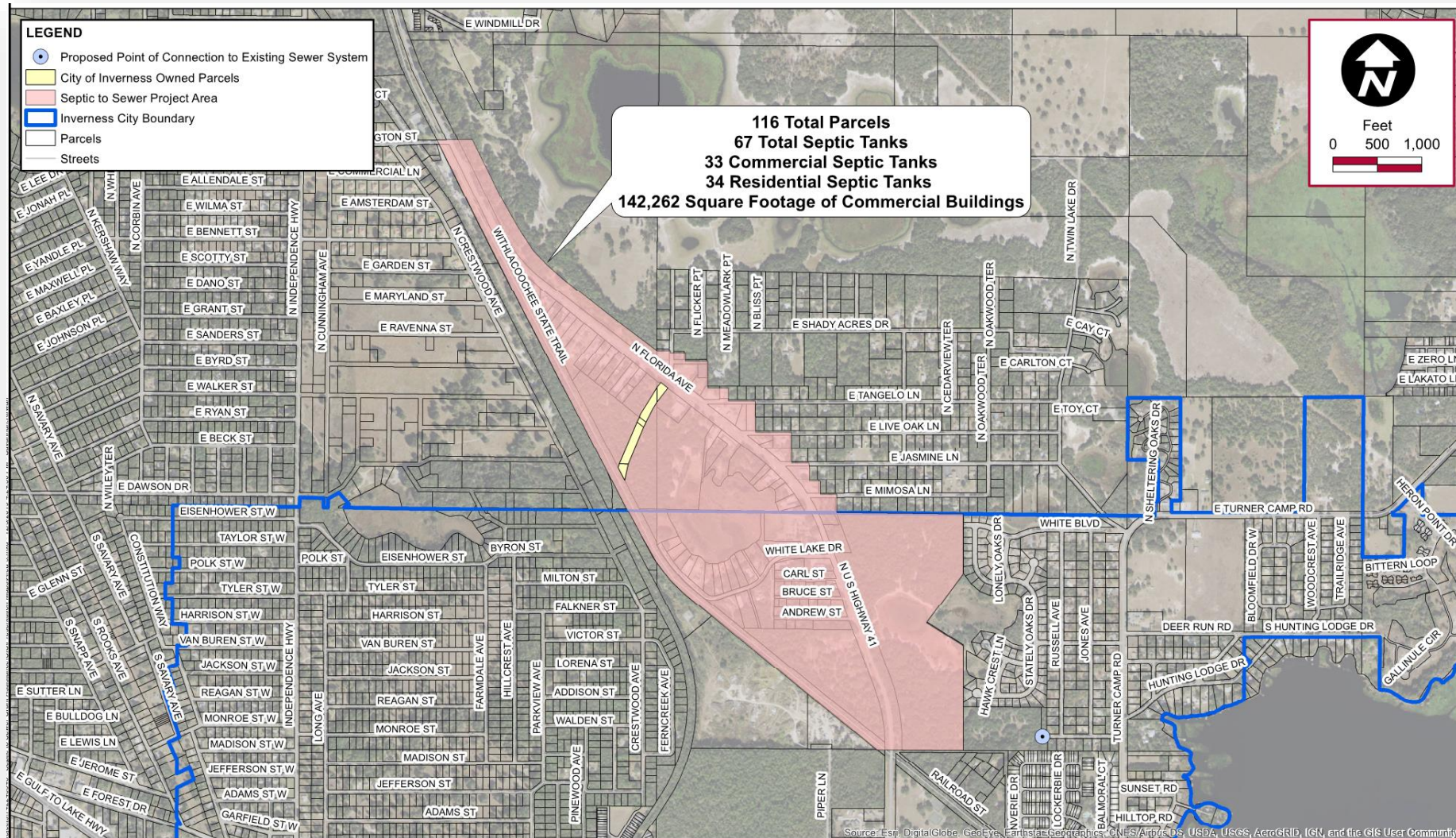
- **City's WWTP Plant Efficiency**
 - 3.0 mg/l of Nitrogen Allowed to Discharge
 - 0.4 Attenuation Multiplier
 - 0.9 Recharge Factor
 - 104 lbs. of TN/Year to Ground Water
- **Cost Effectiveness for a 30 year period**
 - 1746 lbs. of TN/Year removed Spring Shed
 - Project cost = \$2,360,500
 - \$45.06 per lb. TN removed

41 North Sewer Extension Project

Project Description:

- Design, Permitting and Construction of sanitary sewer system to serve the project area
- 116 parcels with 67 OSTDS units to be removed from service
 - 33 Commercial septic tanks
- Funding request includes connection fees and property acquisition
- Project to benefit Chassahowitzka-Homosassa Springs
 - Located within Chassahowitzka-Homosassa Springs Group BMAP
- Project Start: 2021
- Project Completion: 2023

41 North Sewer Extension Project



41 North Sewer Extension Project

Seeking funding for 80% of total project cost

COST ESTIMATE FOR GRANT APPLICATION					
CITY OF INVERNESS					
41 NORTH SEWER EXTENSION PROJECT					
ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	SEPTIC TANK ABANDONMENT AND CONNECTION TO SEWER	67	EA	\$ 8,000	\$ 536,000
2	GRAVITY SEWER (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	7,500	LF	\$ 120	\$ 900,000
3	FORCE MAIN (INCLUDES ALL CONSTRUCTION RELATED COMPONENTS)	7,000	LF	\$ 100	\$ 700,000
4	LIFT STATION UPGRADE	3	EA	\$ 400,000	\$ 1,200,000
5	PROPERTY ACQUISITION	2	LOT	\$ 35,000	\$ 70,000
6	ROADWAY	1.50	MI	\$ 450,000	\$ 675,000
				TOTAL \$	4,081,000

41 North Sewer Extension Project

- **Residential Septic Tank Load to Ground Water**
 - 34 Septic Tanks
 - 23.7 lbs. of TN/Year/Septic Tank
 - 0.5 Attenuation Multiplier
 - 0.9 Recharge Factor
 - 363 Total lbs. of TN/Year to Ground Water
- **Commercial Septic Tank Load to Ground Water**
 - 33 Septic Tanks
 - 142,262 SF of Buildings
 - 15 gpd/100 SF of sewage generated from commercial applications –FAC 64E6.008
 - 21,339 GPD of wastewater flow from commercial tanks
 - 250 GPD per ERU
 - 85 ERUs for commercial tanks
 - 910 Total lbs. of TN/Year to Ground Water

41 North Sewer Extension Project

- **City's WWTP Plant Efficiency**
 - 3.0 mg/l of Nitrogen Allowed to Discharge
 - 0.4 Attenuation Multiplier
 - 0.9 Recharge Factor
 - 71 lbs. of TN/Year to Ground Water
- **Cost Effectiveness for a 30 year period**
 - 1202 lbs. of TN/Year removed Spring Shed
 - Project cost = \$4,081,000
 - \$113.20 per lb. TN removed

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