

# Indian Waters Phase 1 Septic to Sewer Conversion Project

2<sup>nd</sup> Informational Public Meeting

June 22<sup>nd</sup>, 2021



Kimley»»Horn



GOVERNMENT SERVICES GROUP, INC.

# Presentation Overview

- Project Intent and Benefit
- Regulations Driving the Project
- Sewer Collection System Engineering Design
- Project Funding
- Project Timeline



Three Sisters Spring

# Crystal River / Kings Bay's Septic Tank by the Numbers

- Approximately 28,000 Septic Tanks in the Springshed.
- 250,000 lbs. of Nitrogen / Year
- 42% of the Nitrogen Pollutant Load to the Springs

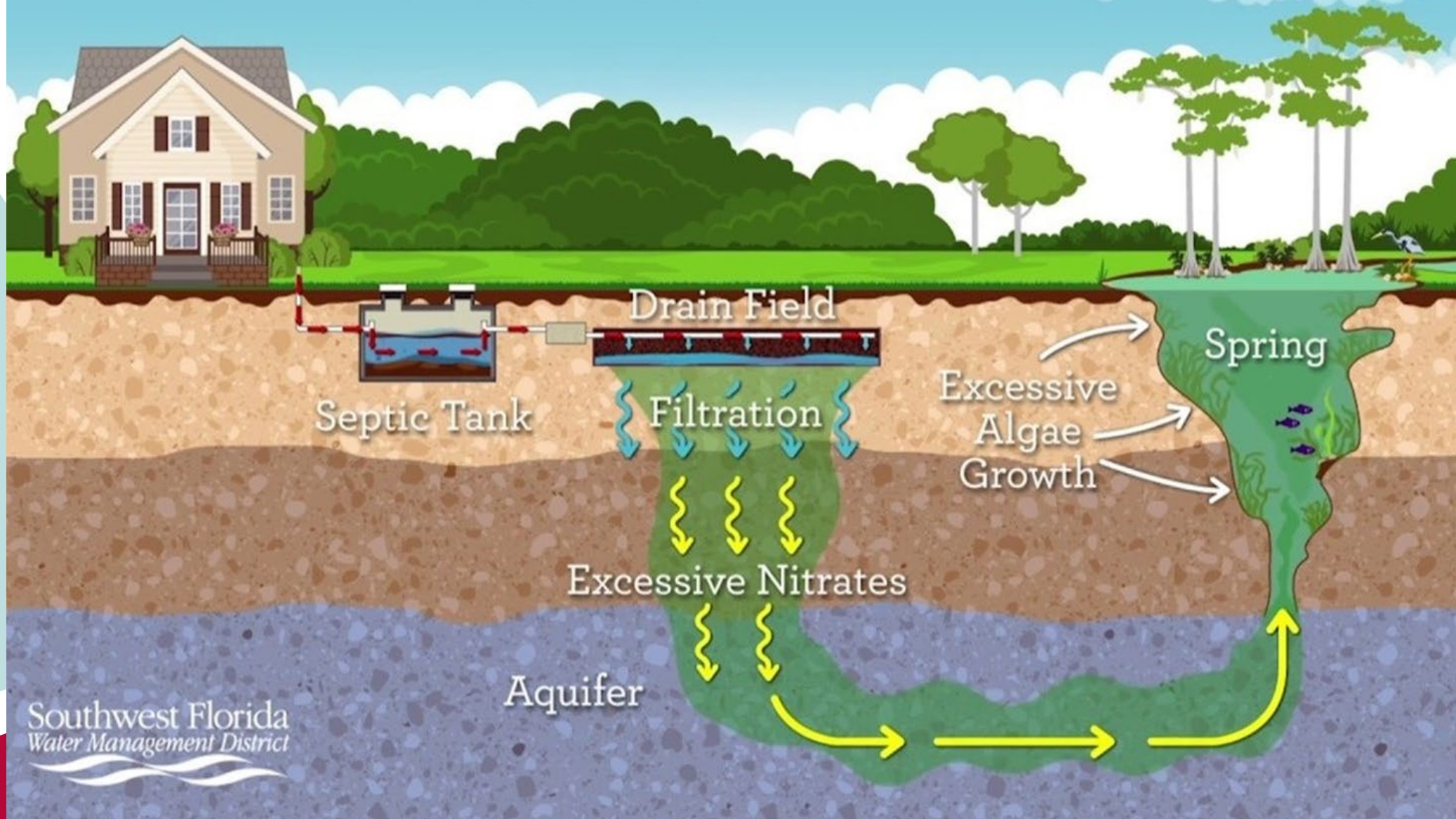


Kings Bay Algae Bloom

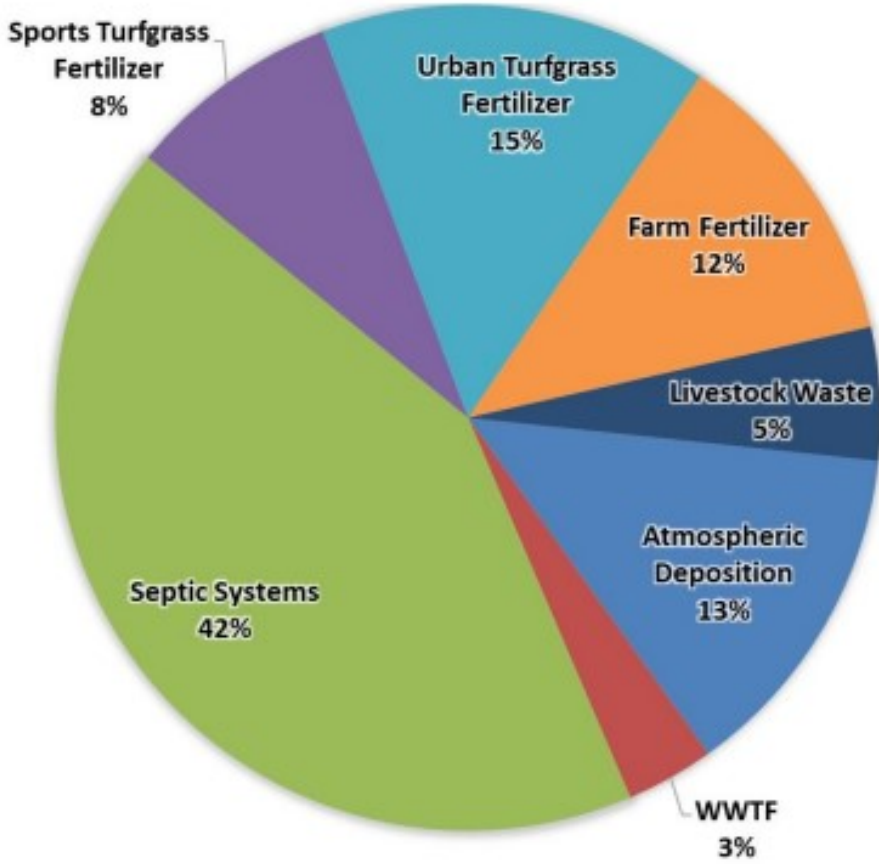
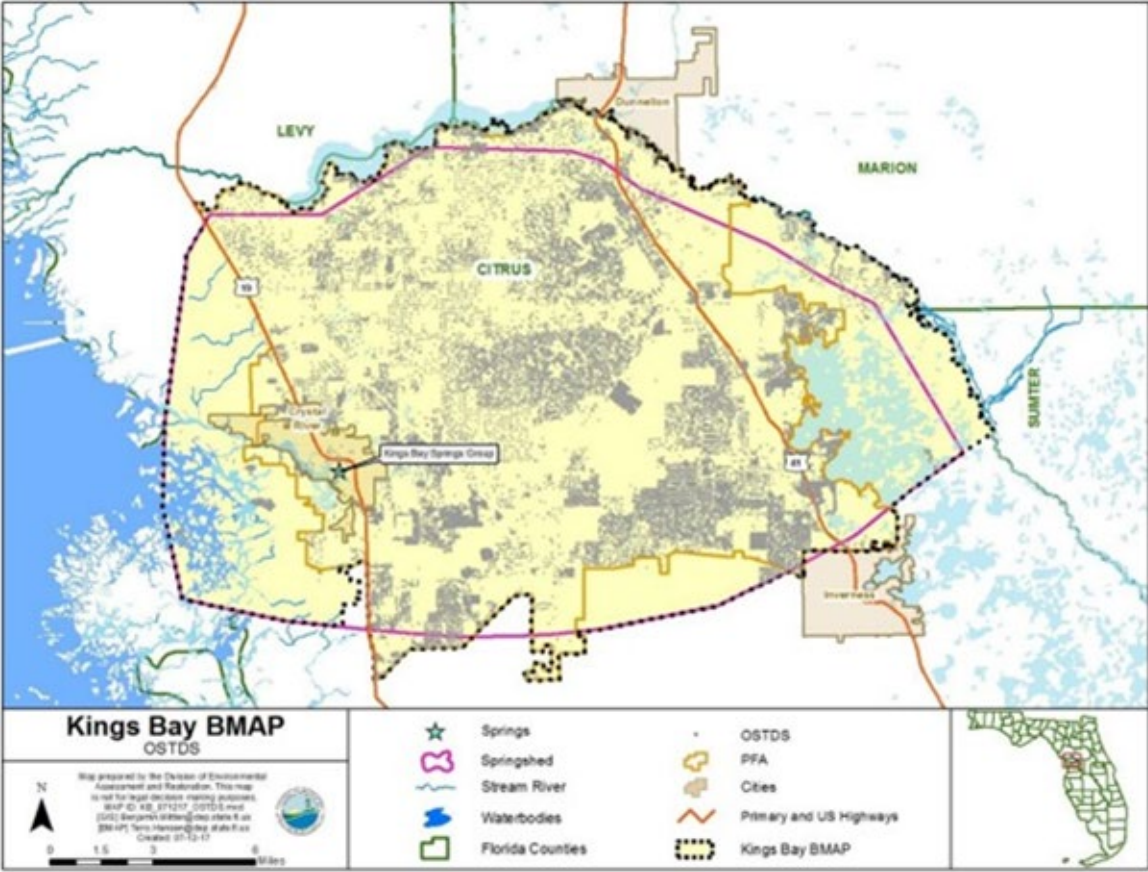


Hunters Springs Algae Mat

# How Septic Systems Impact Springs



# Crystal River / Kings Bay BMAP



# Florida's Water Quality Regulatory Response

- Florida Springs Protection Act
  - Made into law in 2016
- Crystal River / Kings Bay Basin Management Action Plan (BMAP)
  - Adopted by FDEP in 2018
- Florida Clean Waterway Act
  - Made into law in 2020



# Regulatory Requirements

- Establish the Total Maximum Daily Load (TMDL) for the Impaired Spring
- Require BMAP Development
  - Set Priority Focus Areas (PFA) for all Springs
  - Identify Pollutant Sources
  - Identify Projects to Reduce Pollutants below the established TMDL Levels
  - Updated Every 5 Years
- No conventional septic systems allowed on lots less than 1 acre and in the PFA

# Regulatory Requirements cont.

After 2023 no traditional septic tanks will be allowed in the BMAP area regardless of the lot size and no permits on existing traditional septic tanks will be issued

2023

2038

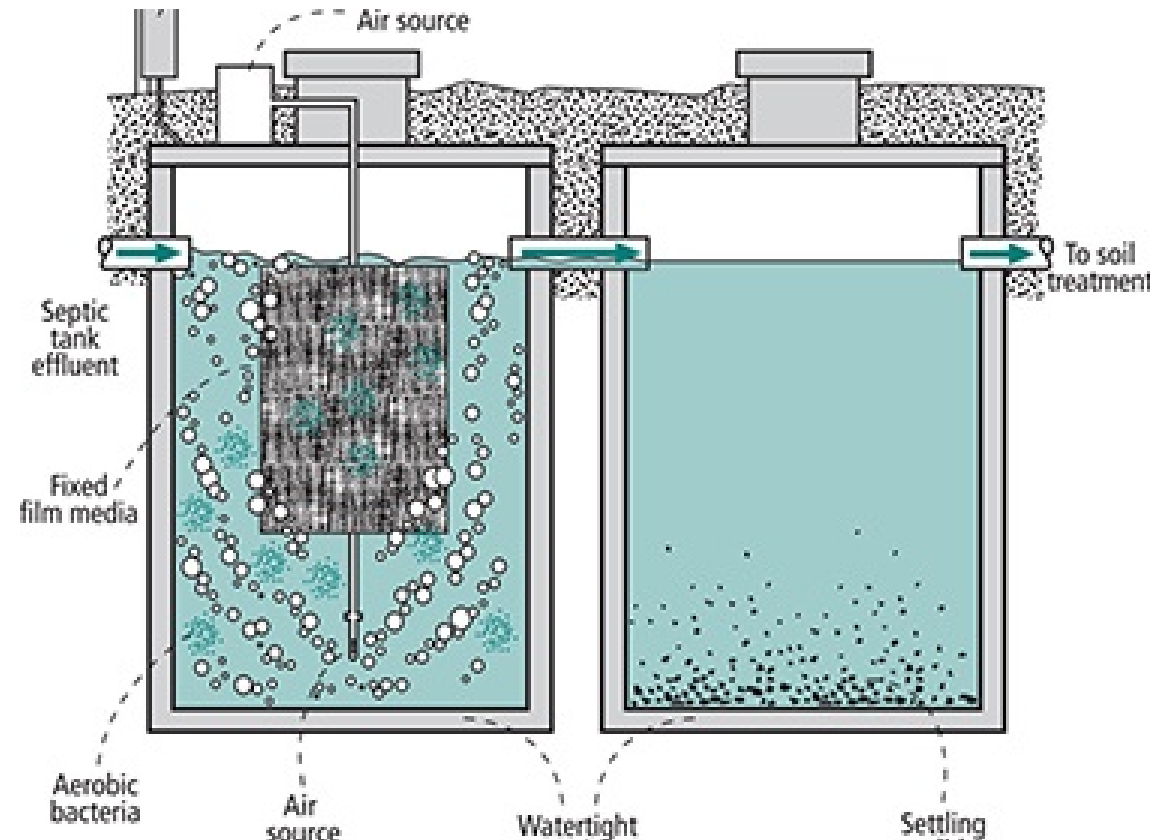
Enhanced septic sewer systems will be required throughout the entire BMAP on all lot sizes by 2038.



# Enhanced Septic Systems

## The Do-Nothing Option

- Two Main Types
  - Passive Systems
  - Active Systems
- Involve additional tanks, pumps, aeration, and/or biologically activated media
- **Active Systems cost between \$20,000 - \$30,000**
- **Passive Systems cost between \$13,000 - \$17,000**
- Annual Maintenance and Inspection Required

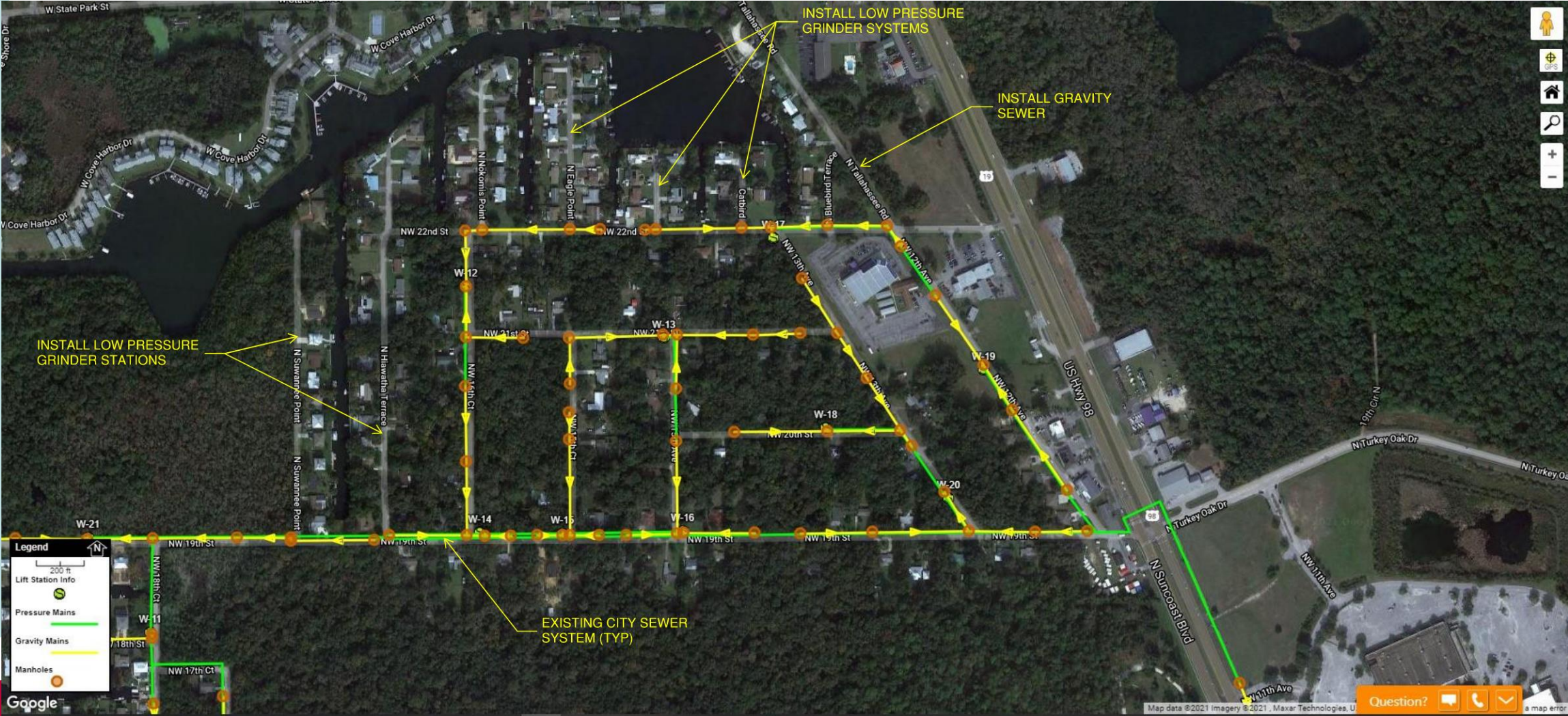


Example Enhanced Septic System <sup>9</sup>



# Indian Waters Phase I Project Progress

## Sewer Layout



# Low-Pressure Sewer Installation



Force Main Pipe Installation

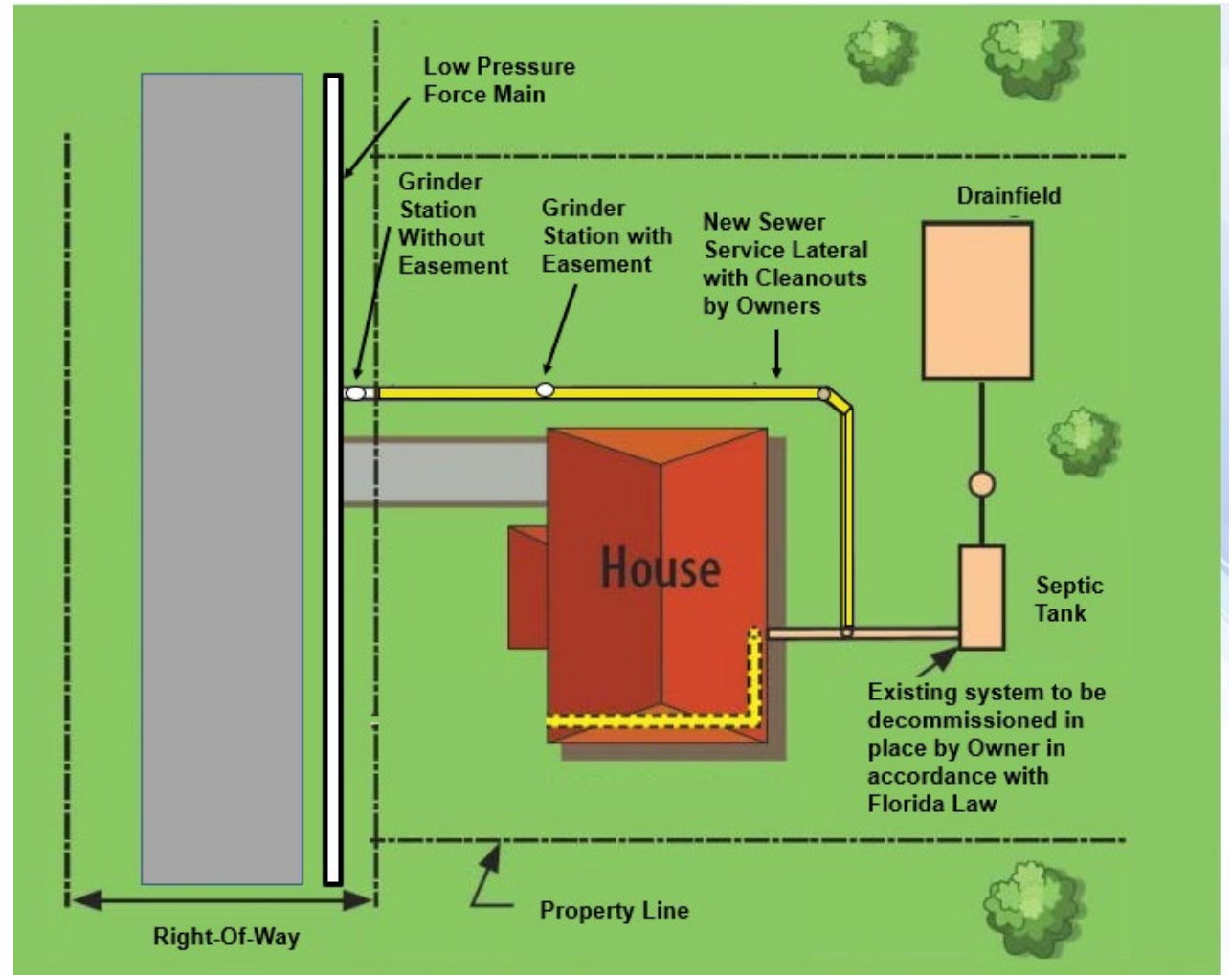


# Low-Pressure Sewer System Layout

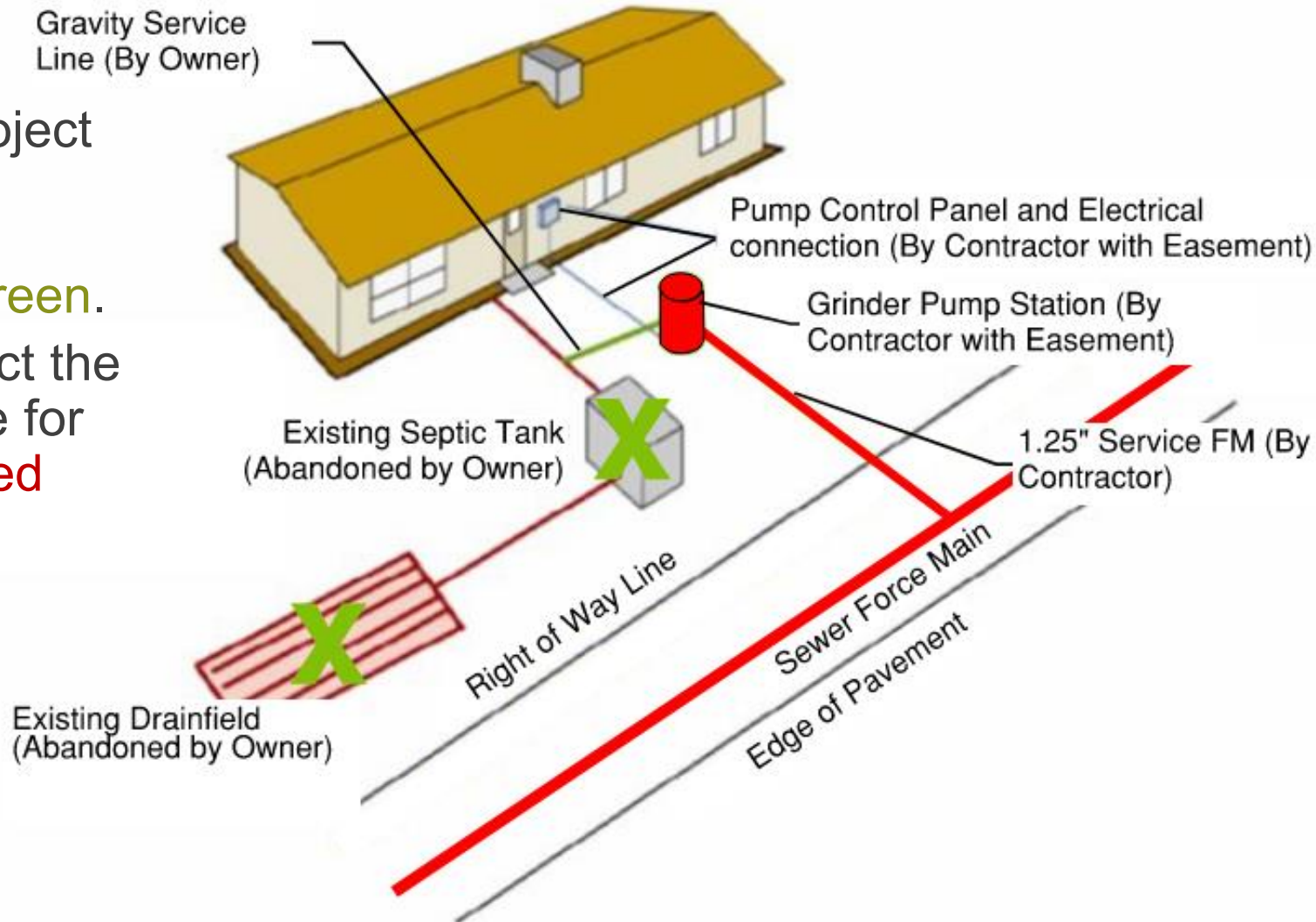


# Abandonment of Existing Septic Tank & Connection to Grinder Station

- Owner is responsible for abandonment and connection.
- Decommission existing septic tank and drainfield in place in compliance with FDOH/FDEP requirements.
- Construct new sewer service lateral on owner's property.
- City has applied for a 319 Grant to help pay for this work.



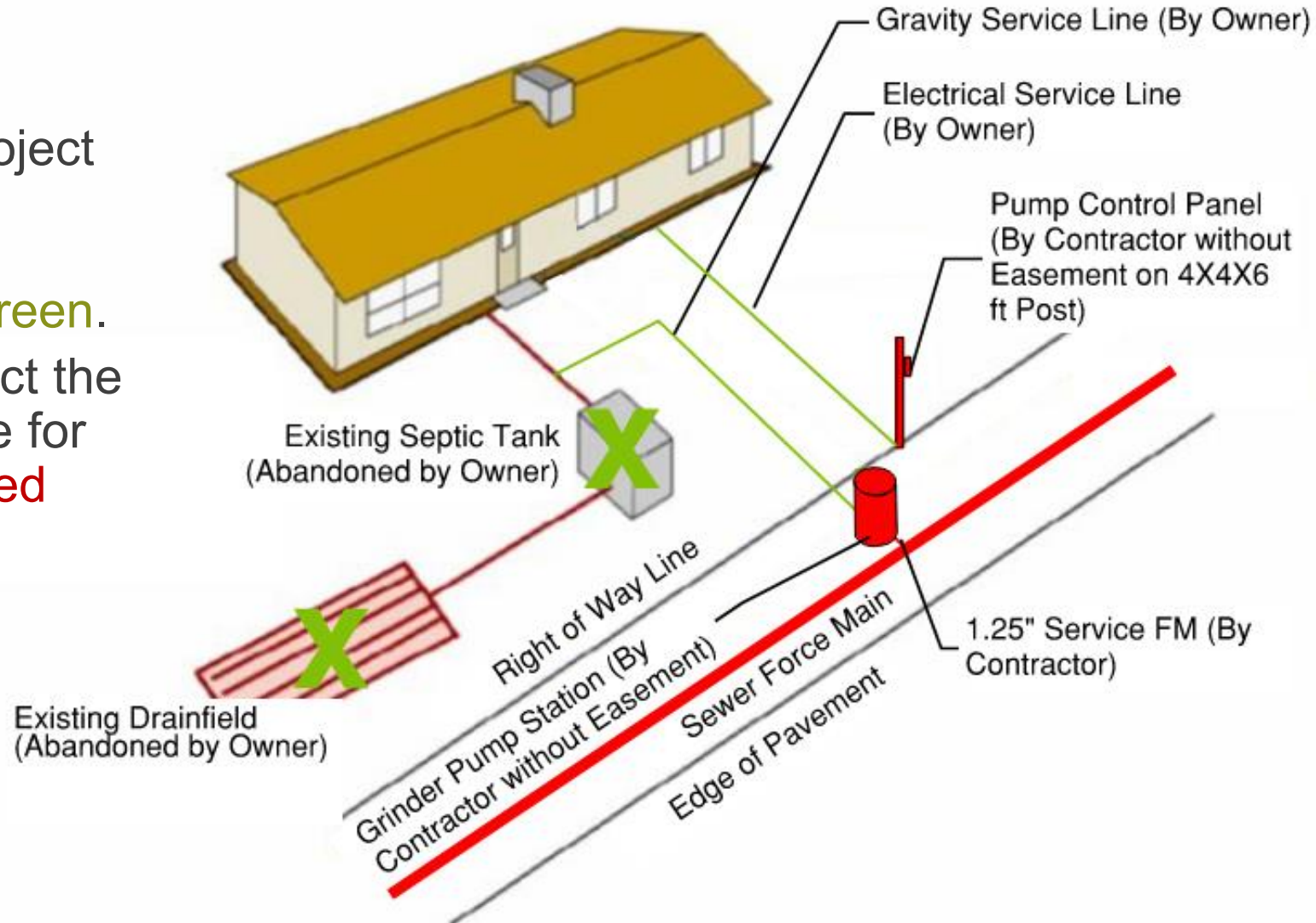
# Grinder Station Placement With Easement



- Portions of the project the Owner is responsible for installing are in **Green**.
- Portions the project the City is responsible for installing are in **Red**

# Grinder Station Placement Without Easement

- Portions of the project the Owner is responsible for installing are in **Green**.
- Portions the project the City is responsible for installing are in **Red**





# HOMEOWNER RESPONSIBILITIES



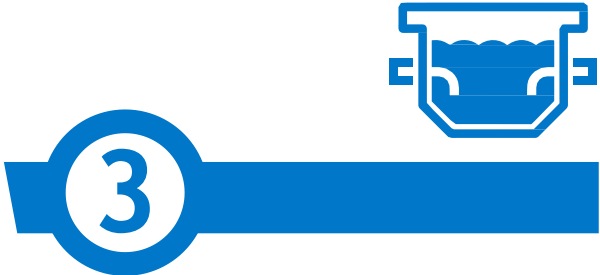
## Sign up for the Easement Agreement

Copies of the easement agreement are available in the back.



## Watch for Project Updates

Watch for email and other communication about project progress.



## Abandon Septic Tank and Connect

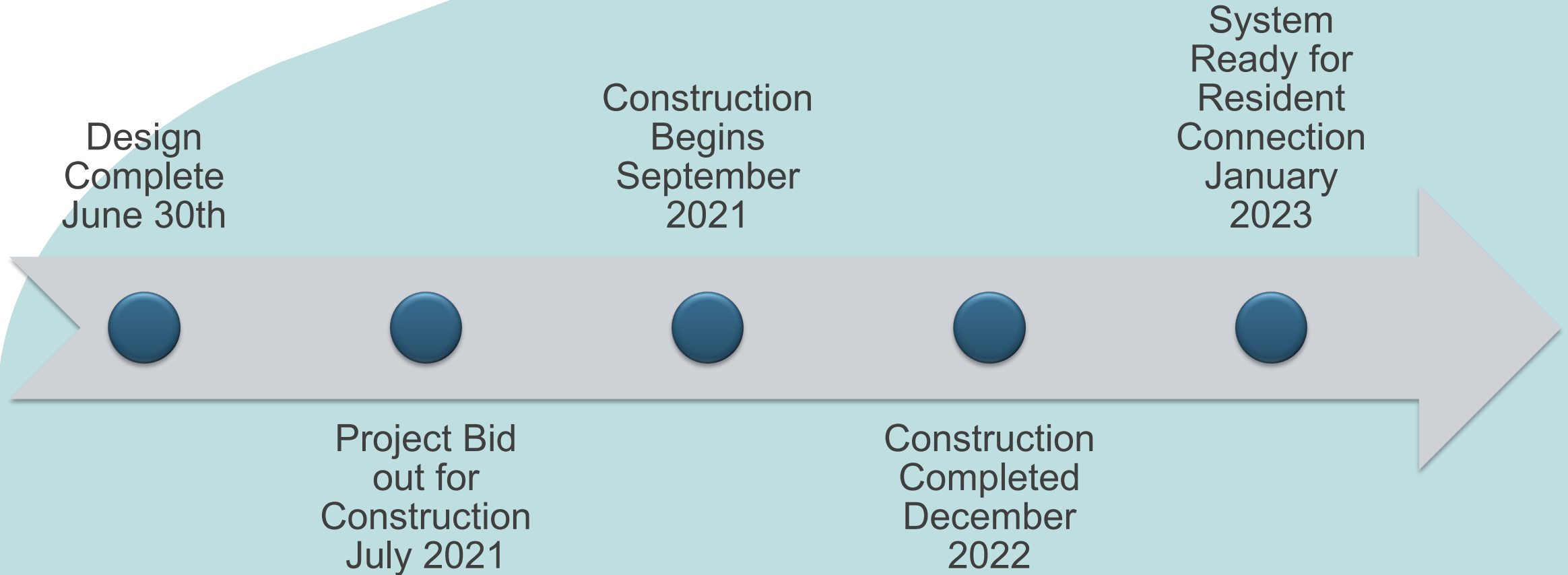
Coordinate with Crystal River when you abandon septic system and construct service connection.



## Sign up for Monthly Service

Monthly wastewater bill is based on usage.

# Sewer Collection System Construction Schedule



# Development of Wastewater Assessment Program



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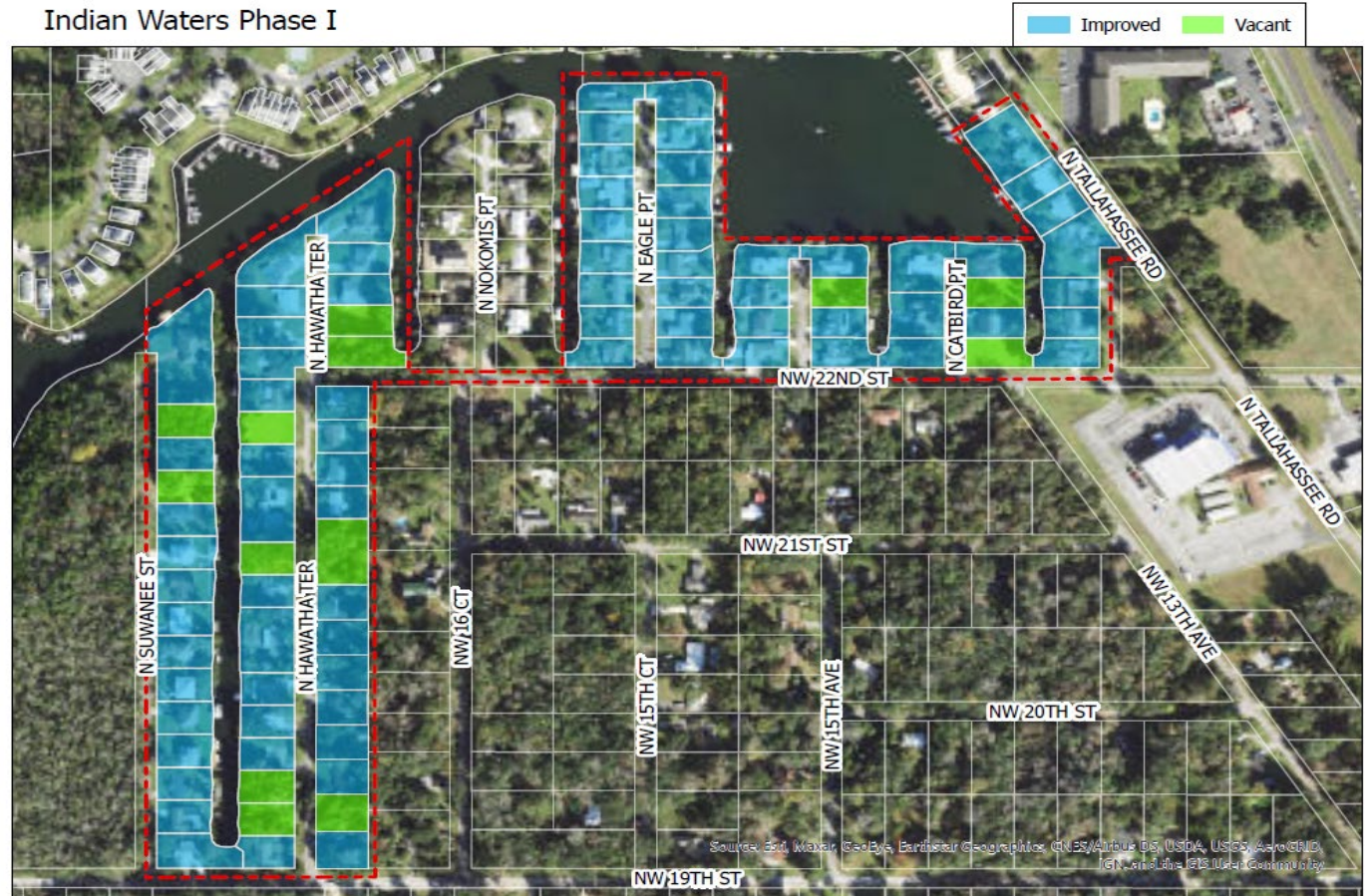
- Determine Benefitted Properties
- Develop Apportionment Methodology
  - Fair and reasonable way to spread the costs among benefitted properties
- Create Assessment Database based on Benefitted Properties
- Determine Assessment Revenue Requirements
- Calculate Assessment Rates
  - Prepay Amount in Full
  - Pay over 20-year period through a non-ad valorem wastewater assessment

# Indian Waters Phase I Assessment Program



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- Benefit Area Consists of
  - 90 Parcels
    - 94 Buildable Lots
- Apportionment Methodology
  - 1 Unit Per Buildable Lot
- Cost Calculations
  - Part 1
    - ROW central wastewater project costs
  - Part 2
    - Individual Property Owner Costs
      - Abandonment of septic tank and connection to central wastewater



# Cost Calculations



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## Part 1 – ROW Central Wastewater Project Costs

- Prepayment Amount
  - \$9,746 per buildable lot
    - Prepayment Period – September - October 2021
- Financed over 20-year period
  - \$819.00 per buildable lot
    - Collected on November 2021 Tax Bill

Planning, Engineering & Permitting Costs	\$313,948
Project Construction Costs	\$1,691,964
Recording Fees	\$7,050
Implementation Costs	\$127
<b>Total Construction Costs</b>	<b>\$2,013,089</b>
FDEP Springs Restoration Grant	\$997,000
City Contribution	\$100,000
<b>Total Other Source Funding</b>	<b>\$1,097,000</b>
<b>Net Construction Costs</b>	<b>\$916,089</b>

## Part 2 - Individual Owner Costs

- Mandatory connection within 1 year of construction completion
- Estimated -- \$7,000 to \$10,000
  - Abandonment of septic tank
  - Connection to central wastewater
- Potential Grant Funding
  - To be applied for after construction complete
- City to provide financing options for non-grant funded costs
  - Financed over XX years
  - Collected on Tax Bill starting November 2022 or November 2023

# Implementation of Wastewater Assessment Program



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- Adopt Procedural Ordinance – July 12, 2021

## **Part 1 – ROW Wastewater Assessment Program**

- Adopt Initial Assessment Resolution – August 9, 2021
- Publish Notice of Public Hearing – August 23, 2021
- Mail First Class Notices – August 23, 2021
  - Every property owner will get a notice in the mail
    - Explaining the wastewater assessment program
    - Costs to the property owner
    - Inviting to public hearing on September 13, 2021
- Public Hearing to Adopt Final Assessment Rates – September 13, 2021
- Prepayment Period
  - Prepayment Notices Mailed – September 20, 2021
  - Prepayment Period Ends – October 25, 2021
- Wastewater Assessment Collected on Tax Bill – November 2021
- Construction Starts – September/October 2021
  - Estimated Completion – December 2022

# Part 2 – Connection to Wastewater System



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Total Estimated Costs -- \$7,000 to \$10,000

- Property Owners connect to central wastewater January 2023 through December 2023
  - Responsibility of Property Owner to hire contractor/plumber
    - Abandon septic tank and hook-up to central wastewater system
      - Estimated costs -- \$3,500 to \$6,500
        - Based on work to be performed
  - Capacity/Impact Fee Charge
    - \$3,425 for non-City residents
    - \$2,740 for City residents
  - Connection Fee
    - \$125 for non-City residents
    - \$100 for City residents
- Potential Grant Funding
- City to Provide Financing Option
  - Funded over XX years
  - Collected as a non-ad valorem assessment on tax bill starting November 2022 or November 2023

# QUESTIONS & DISCUSSION





## Sewer Collection System Construction Schedule



Design Complete – June 30<sup>th</sup>



Project Construction Bidding – July/August 2021



Construction Begins – September 2021



Construction Completion – December 2022

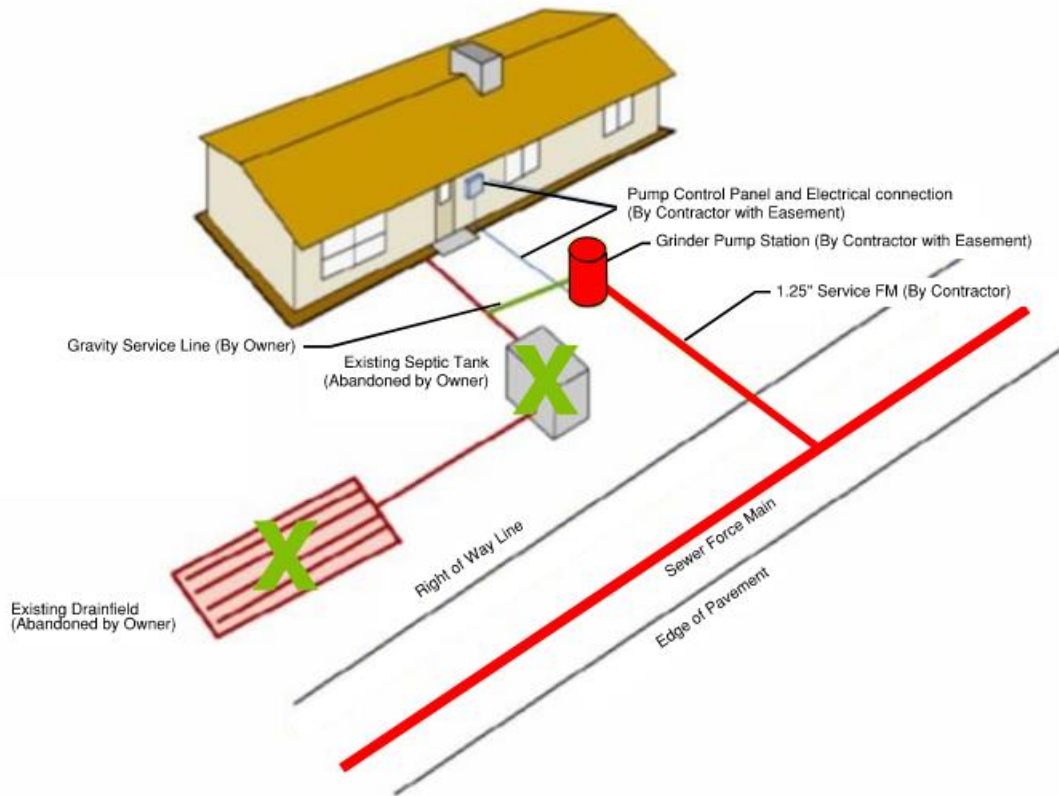


System Ready for Resident Connection – January  
2023

# Sewer Collection System Costs

Item	Description	Cost
1	Planning, Engineering, Permitting, & Implementation Costs	\$314,075
2	Estimated Sewer Collection System Construction Costs	\$1,691,964
3	Projected Total Project Cost	\$2,006,039
4	FDEP Springs Restoration Grant	\$997,000
5	Crystal River Contribution	\$100,000
6	Projected Total Project Cost Less Grant & City Funding	\$909,039

# Grinder Station Placement



- Stations will be located closer to the house on properties with an easement.
  - Station control boxes located on the side of the house.
- Stations will be located in the ROW on properties without an easement
  - Control Boxes located on a post in front of the house.
- Owner responsible to connect the sewer service lateral and electrical to the grinder station.
- City has applied for a 319 Grant to help pay for this work.