

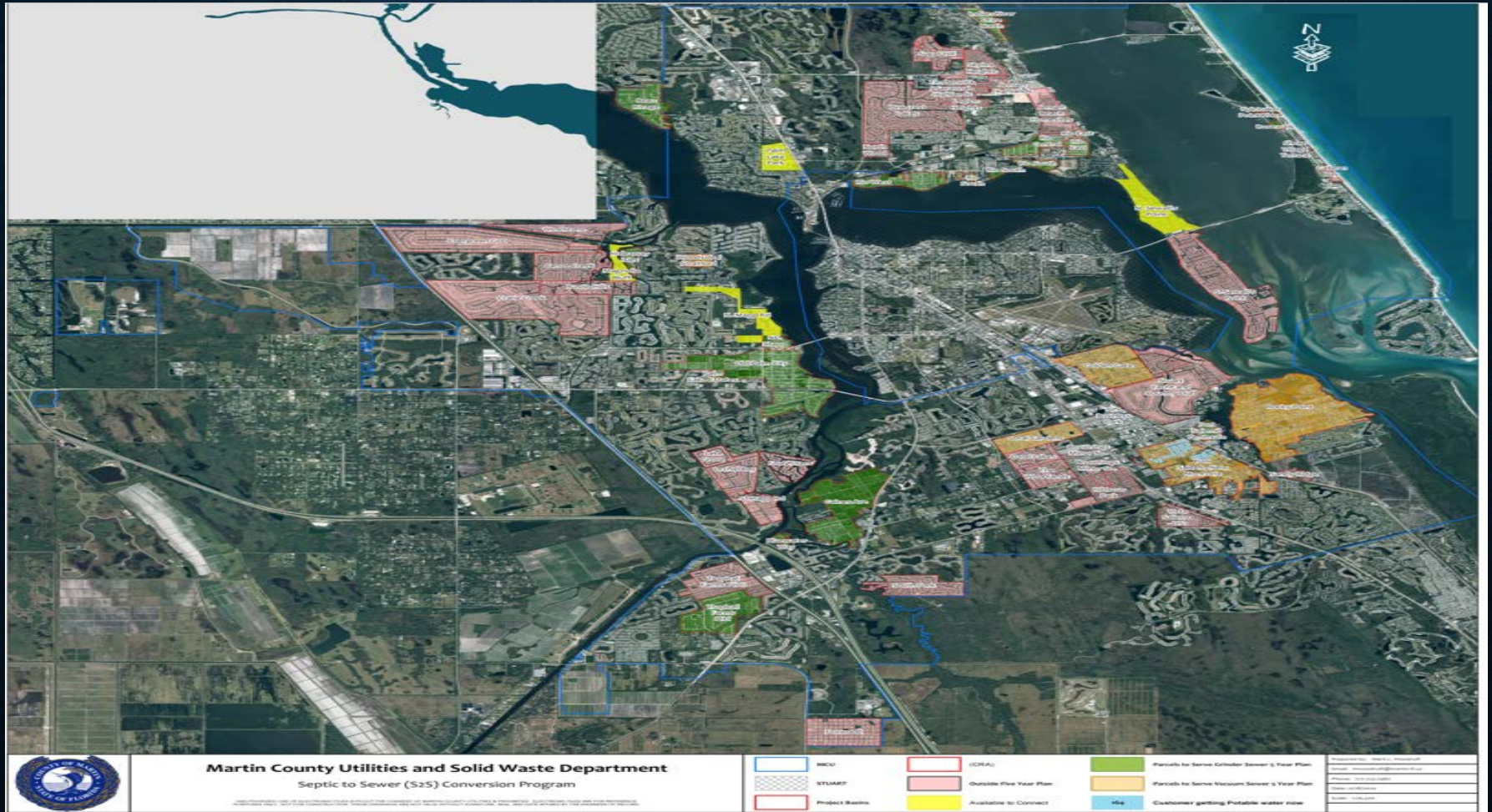
SEPTIC TO SEWER PROGRAM UPDATE



Presented By Martin County Utilities

January 12, 2021

5 YEAR PLAN



5 YEAR PLAN

Calendar Year									
Project	Available to Connect	2020	2021	2022	2023	2024	2025	Parcels to Serve (Sewer)	Parcels to Serve (Potable Water)
Vacuum Sewer	Golden Gate	Summer 2022	Vacuum Sewer & Drainage	Vacuum Sewer	Vacuum Sewer, Paving			764	0
	Woodside / Stratford Downs	Fall 2022			Vacuum Sewer, Drainage & Paving			78	0
	Old Palm City	Fall 2023	Drainage	Vacuum Sewer & Potable W/water	Vacuum Sewer & Potable W/water, Paving	Paving		1015	377
	Port Salerno -New Monrovia	Fall 2024	Potable W/water (portion or ares)	Drainage	Vacuum Sewer & Potable W/water	Vacuum Sewer & Potable W/water, Paving	Original 454-164 (PCLs getting water now) leaves 290	952	290
	Coral Gardens	Fall 2025		Drainage	Vacuum Sewer & Potable W/water	Vacuum Sewer & Potable W/water, Paving		638	0
	Rocky Point	Fall 2026				Drainage	Vacuum Sewer & Potable W/water	1198	383
Totals: →								4645	1050
Grinder Sewer	Mapp Road North	Connected: (50)	Grinder Sewer					201	0
	Palm Lake Park	Connected: (19)	Grinder Sewer, Potable W/water & Paving					224	224
	Magnolia Bluff	Connected: (10)	Grinder Sewer					106	0
	Sewall's Point North	Connected: (20)	Grinder Sewer					223	0
	Tropical Farms Phase I	Fall 2020	Grinder Sewer, Potable W/water & Paving					272	0
	Bluewater Way	Winter 2020	Grinder Sewer					25	0
	Indian River Drive North	Winter 2020	Grinder Sewer & Potable W/water					114	114
	Palm Lake Estates	Spring 2021	Drainage & Grinder Sewer	Drainage, Grinder Sewer, & Paving				48	0
	Rio West	Spring 2021		Grinder Sewer				281	0
	Spinnaker Point Place	Summer 2021		Grinder Sewer				12	0
	Shore Village Terrace	Summer 2021		Grinder Sewer				10	0
	Rosewalk	Summer 2021		Grinder Sewer				8	0
	Beau Rivage	Summer 2021		Drainage, Grinder Sewer, Potable W/water & Paving				270	270
	Rio South	Fall 2021		Grinder Sewer				134	0
	Gaines Avenue	Winter 2021	Grinder Sewer & Drainage	Grinder Sewer, Potable W/water, Drainage, & Paving				157	157
	Hideaway Isles	Winter 2021	Grinder Sewer & Potable W/water	Grinder Sewer & Potable W/water				72	72
	Port Salerno Peninsula	Summer 2022			Drainage, Grinder Sewer & Paving			116	0
	Mapp Road NE	Summer 2022			Drainage, Grinder Sewer, & Paving			53	0
	Rio Central	Summer 2022			Grinder Sewer			241	0
	Rio East	Summer 2023				Grinder Sewer		182	0
Totals: →								2749	837

* This document is accurate as of November 1st, 2020. This document is for planning purposes only and schedule is subject to change. *

VACUUM SEWER SYSTEMS

- North River Shores Phase II
 - Completed July 2019
 - 299 ERC's
 - 234 Connected (78%)
 - \$11,708 / ERC
- Golden Gate
 - Construction Starts January 2021
 - 834 ERC's
 - \$11,651 / ERC
- Old Palm City
 - Construction Starts Fall 2021
 - 1,075 ERC's
 - \$11,500 / ERC (estimate)
- Port Salerno / New Monrovia
 - Begin Design February 2021
 - 952 ERC's
 - <\$12,000 / ERC (per BOCC)

Lightweight valve pits, capable of bearing traffic loads, are easily installed and typically serve two or more homes.



To ensure system integrity, vacuum tightness tests are conducted daily during the construction period.



AIRVAC assembles and tests the mechanical and electrical equipment of the vacuum station at its factory. The skid-mounted equipment is delivered to the job site and placed into the vacuum station building.



The vacuum station building that houses the mechanical and electrical equipment is designed to fit the characteristics of the neighborhood.



Vacuum mains use small diameter pipes installed in shallow, narrow trenches. Because of these factors, the mains are typically installed adjacent to the pavement, minimizing road restoration.



Disruption to the community during the construction period is kept to a minimum with vacuum sewers resulting in less surface restoration being required.

Vacuum stations provide a clean, safe environment for maintenance personnel as all sewage is completely contained within the collection tank.



Collection Chamber



How AIRVAC Works:

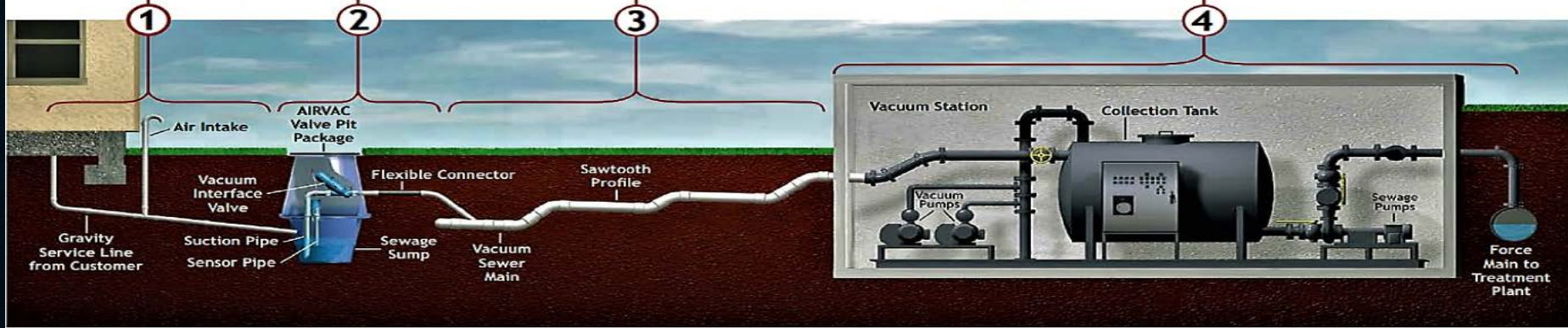
Traditional gravity lines carry wastewater from up to 4 customers to an AIRVAC valve pit package.

When 10 gallons of wastewater collects in the sump, the AIRVAC valve opens and differential pressure propels the contents into the vacuum main.

Wastewater travels at 15 to 18 fps in the vacuum main, which is laid in a sawtooth fashion to insure adequate vacuum levels at the end of each line.

Wastewater enters the collection tank. When the tank fills to a predetermined level, sewage pumps transfer the contents to the treatment plant via a force main.

Vacuum pumps cycle on and off as needed to maintain a constant level of vacuum on the entire collection system.

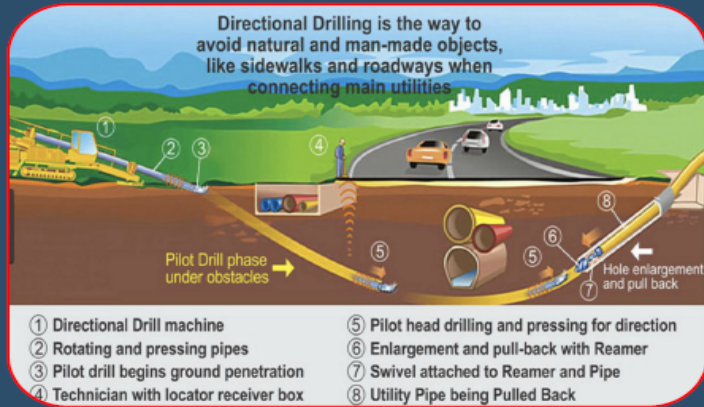


GRINDER SEWER SYSTEMS

* N. Mapp Road	<u>200</u> ERC's	<u>78</u> Connected	<u>39</u> %
* Palm Lake Park	<u>222</u> ERC's	<u>21</u> Connected	<u>9</u> %
* Jensen CRA	<u>17</u> ERC's	<u>15</u> Connected	<u>88</u> %
* N. Sewall's Point	<u>213</u> ERC's	<u>37</u> Connected	<u>17</u> %
* Magnolia Bluff	<u>108</u> ERC's	<u>19</u> Connected	<u>18</u> %
• Hideaway Isles	<u>74</u> ERC's		

Bids Rec'd Dec. 2020

Construction Starts Spring 2021



Minimal trench width for the force main exiting the Grinder Pump Station



The Martin County contractor installing our Grinder System takes special care that your surrounding landscape is not damaged during installation

All HDPE pipe components are joined using electrofusion welding



Typical finished view of an installed Residential Grinder Pump Station



Martin County

"Connect to Protect" Program

This program was created to assist homeowners in selected areas with converting their onsite sewage treatment and disposal systems, typically septic tanks with drain fields, to the Martin County Utilities (MCU) sanitary sewer system.

This program is a **"one-stop shop"** that streamlines the process for homeowners while providing financial incentives to connect. MCU will have licensed contractors install the grinder pump and all appurtenances, including the septic tank abandonment and electrical at the home and connect to our system. MCU will fully maintain the grinder system in perpetuity.

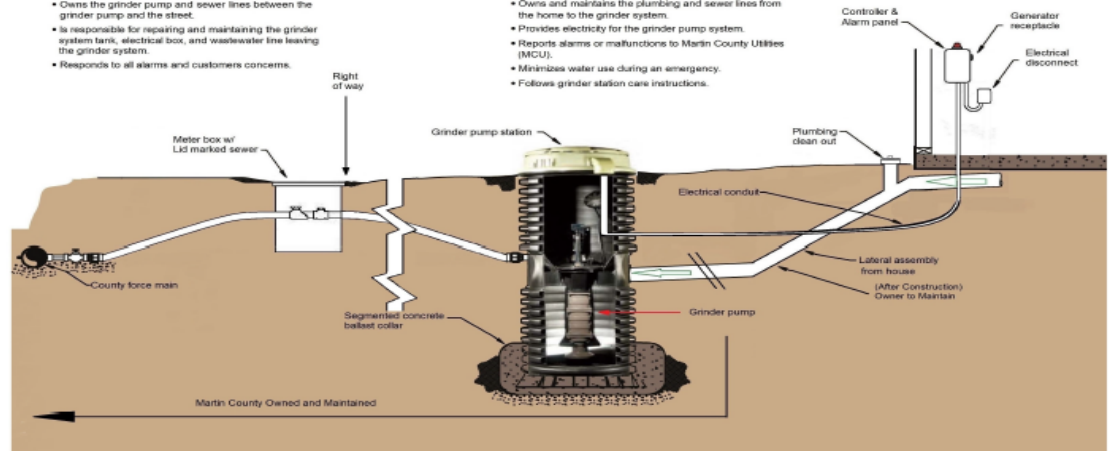
TYPICAL RESIDENTIAL GRINDER STATION DETAIL

Martin County Utilities (MCU):

- Owns the grinder pump and sewer lines between the grinder pump and the street.
- Is responsible for repairing and maintaining the grinder system tank, electrical box, and wastewater line leaving the grinder system.
- Responds to all alarms and customers concerns.

The Homeowner:

- Owns and maintains the plumbing and sewer lines from the home to the grinder system.
- Provides electricity for the grinder pump system.
- Reports alarms or malfunctions to Martin County Utilities (MCU).
- Minimizes water use during an emergency.
- Follows grinder station care instructions.



INSTALLATION CALENDAR

December 2020

December 2020							January 2021						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
5	6	7	1	2	3	4	3	4	5	6	7	1	2
12	13	14	15	16	17	18	10	11	12	13	14	15	16
19	20	21	22	23	24	25	17	18	19	20	21	22	23
26	27	28	29	30	31		24	25	26	27	28	29	30
							31						

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Nov 29	30	Dec 1	2	3	4	5
6	7 9:00am 20 Banyan Rd. N_Sewalls Pt. 12:30pm 14 Palm Ct. N_Sewalls Pt.	8	9	10 9:00am 21 N River Rd. N_Sewalls Pt. 12:30pm 8 Knowles N_Sewalls Pt.	11	12
13	14 9:00am 16 Perriwinkle Ln. N_Sewalls Pt. 12:30pm 968 NW 13th St. Palm Lake Park	15	16	17 8:30am 1101 SW Pine Tree Ln. Magnolia 11:30am 1890 NE Church St. Jensen 1:30pm 3419 NE Savannah Rd. Jensen	18	19
20	21 9:00am 2064 SW Mockingbird Ln. Magnolia Bluff 12:30pm 906 SW Magnolia Bluff Dr. Magnolia Bluff	22	23 9:00am 2095 SW Gull Harbor N_Mapp PC 12:30pm 1086 SW Magnolia Bluff Dr. Magnolia Bluff	24	25	26
27	28	29 9:00am 461 SW Pine Tree Ln. Magnolia Bluff 12:30pm 682 SW Pine Tree Ln. Magnolia Bluff	30	31	Jan 1, 21	2

SOLAR & ENERGY LOAN FUND

The Board of County Commissioners approved the First Amendment to the Agreement between Martin County and SELF adding specific terms to expand SELF lending activities to include a Grinder Sewer System Installation program. SELF will provide financing under this program to at least one hundred (100) and up to two hundred (200) qualified applicants during the term of this Agreement if the County provides internal contributions of \$1,000 to qualified applicants of the program. Each financing under this program will be for \$7,000 financed over 120 months at \$85.00 per month. SELF may provide additional funding to applicants outside of this program, including to cover any remaining costs of connection for the same transaction.

GRANT FUNDING SUMMARY

Martin County Utilities Funding Opportunity Tracking Funding Assistance for Septic to Sewer Projects

Program Name		Program Info		Program FY	Submittal Deadline (mm/dd/yy)	MC Total Loan or Match (\$)	Requested Dollars (\$)	Approved Dollars (\$)	Status of Funding
FDEP SRF Program									
1	State Revolving Loan Clean Water Program					Total SRF Loan	RFI 1		
1.1	MC Overall Septic to Sewer Wastewater Systems	Overall System S2S Connections	FY 2021-23	Submit any time, Try qtrly approval		\$135,686,530	\$54,090,280	\$0	Draft Facilities Plan
2	State Revolving Loan Drinking Water Program					Total SRF Loan	RFI 1		
2.1	MC Drinking Water Systems with S2S	Water with the S2S Connections	FY 2021-23	Submit any time, Try qtrly approval		\$23,420,081	\$14,157,581	\$0	Draft Facilities Plan
FDEP SRF Total						\$159,106,611	\$68,247,861	\$0	
FDEP Nonpoint Source Management Program									
3	FDEP 319(h) Grant					MC Match	Request		
3.1	Golden Gate Septic to Vacuum Sewer & Grinder PS Projects	500 Vacuum Sewer & 250 Grinder PS ERCs	FY 2021	04/30/20		\$2,325,000	\$750,000	\$0	FDEP satisfied; EPA approval late summer
3.2	Old Palm City Septic to Vacuum Sewer & Grinder PS Projects	750 Vacuum Sewer & 100 Grinder PS ERCs	FY 2022	12/04/20		\$1,755,000	\$850,000	\$0	FDEP confirmed receipt
FDEP Nonpoint Total						\$4,080,000	\$1,600,000	\$0	
IRL Council Grant Programs									
4	IRL Council and IRLNEP Water Quality Restoration Grant Program					MC Match	Request		
4.1	MCU Overall Grinder PS Projects	150 Grinder PS ERCs	FY 2020-21	01/17/20		\$510,000	\$150,000	\$150,000	Approved full request
4.2	MCU Overall Grinder PS Projects	150 Grinder PS ERCs	FY 2021-22	01/11/21		\$0	\$0	\$0	Preparing submittal
IRL Council Total						\$510,000	\$150,000	\$150,000	
SFWMD Grant Programs									
5	WMD IRL Water Quality Improvement Project Grant					MC Match	Request		
5.1	Old Palm City Septic to Vacuum Sewer Main System Project	Old Palm City Vacuum System	FY 2020-21	08/21/20		\$12,000,000	\$2,500,000	\$2,500,000	SFWMD approved full request
SFWMD Total						\$12,000,000	\$2,500,000	\$2,500,000	

CONNECT TO PROTECT SEPTIC TO SEWER CONVERSION PROJECT AREAS

Martin County BOCC Connect to Protect Septic to Sewer Conversion Project Areas

North River Shores Vacuum Sewer Phase II

DATE IN SERVICE	TOTAL PARCELS	CONNECTED	PENDING	PERCENTAGE
July-19	299	240	15	80%

N Mapp Rd Grinder Sewer

DATE IN SERVICE	TOTAL PARCELS	CONNECTED	PENDING	PERCENTAGE
October-19	200	84	25	42%

Palm Lake Park

DATE IN SERVICE	TOTAL PARCELS	CONNECTED	PENDING	PERCENTAGE
January-20	222	21	21	9%

Jensen CRA

DATE IN SERVICE	TOTAL PARCELS	CONNECTED	PENDING	PERCENTAGE
October-19	17	15	2	88%

N Sewalls Point Rd

DATE IN SERVICE	TOTAL PARCELS	CONNECTED	PENDING	PERCENTAGE
Jun-20	213	37	29	17%

Magnolia Bluff

DATE IN SERVICE	TOTAL PARCELS	CONNECTED	PENDING	PERCENTAGE
Jun-20	108	19	10	18%

Tropical Farms

DATE IN SERVICE	TOTAL PARCELS	CONNECTED	PENDING	PERCENTAGE
Jan-21	272	0	28	0%

Misc. Grinders

DATE IN SERVICE	TOTAL PARCELS	CONNECTED	PENDING	PERCENTAGE
		56	15	

Totals	Parcels	Connections	Pending	Percentage
	1331	472	145	35%

updated 1/5/2021