

SEWER MASTER PLAN PHASE 2 FINANCIAL ANALYSIS UAB WORKSHOP

CITY OF PUNTA GORDA
UTILITIES DEPARTMENT

June 24, 2019



- Project objectives
- Review 2018 Sewer Master Plan
- Overview of Septic-to-Sewer financial model and assumptions
- Property owner cost
- Conclusions

City of Punta Gorda Sewer Master Plan

The primary goal of this project is to collaboratively develop an initial 15-year plan to implement an affordable, reliable, and efficient wastewater collection and treatment system for a sustainable environment

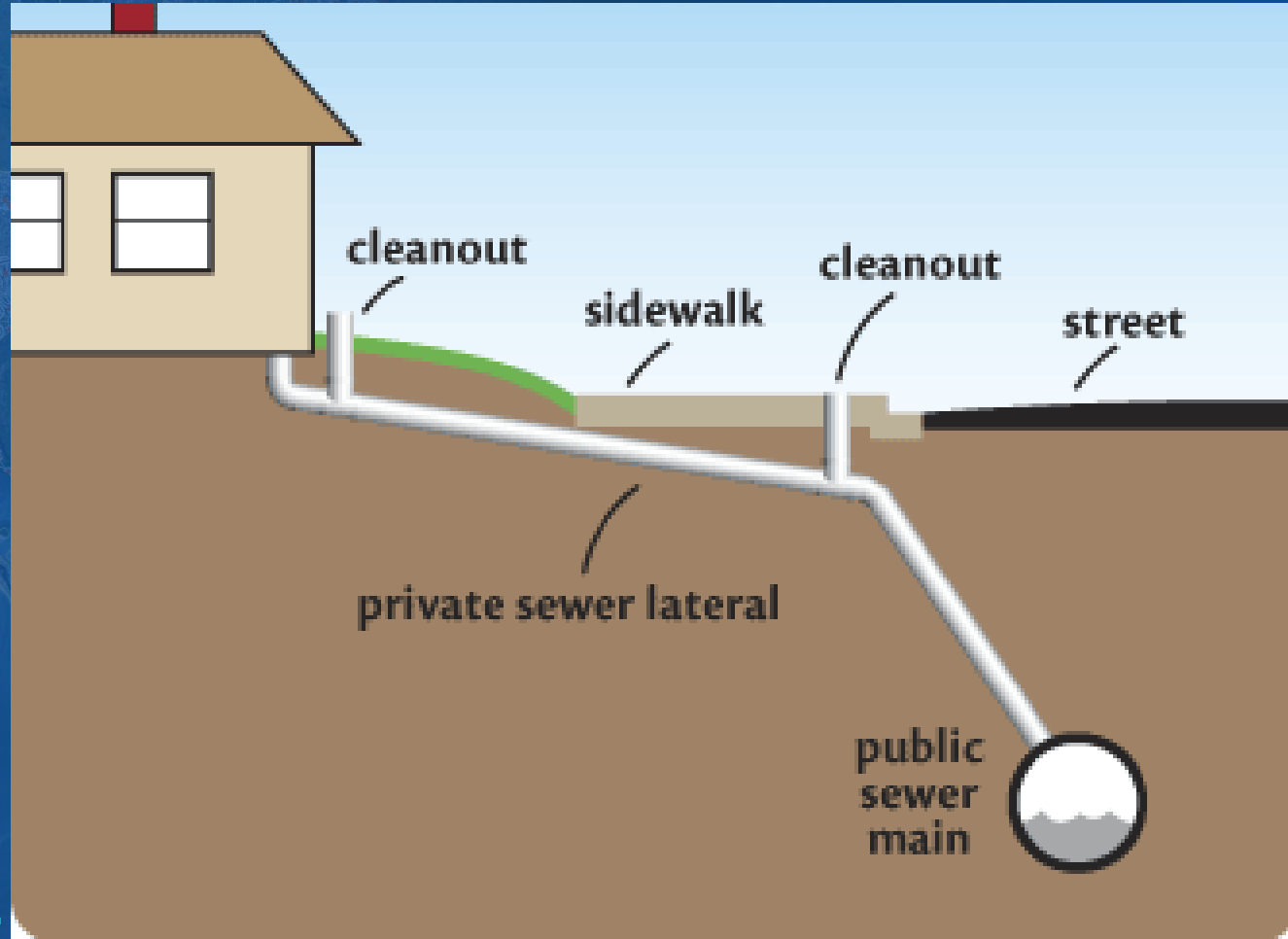
This presentation addresses the financial elements of this master plan.

- Goal: Improve and protect water quality in Charlotte Harbor
 - Regional and Collaborative Effort
- Objective: Develop a Sewer Master Plan to
 - Convert Septic to Sewer (S2S)
 - Create affordable, reliable and efficient wastewater collection system
 - Phase 1 completed in June 2018



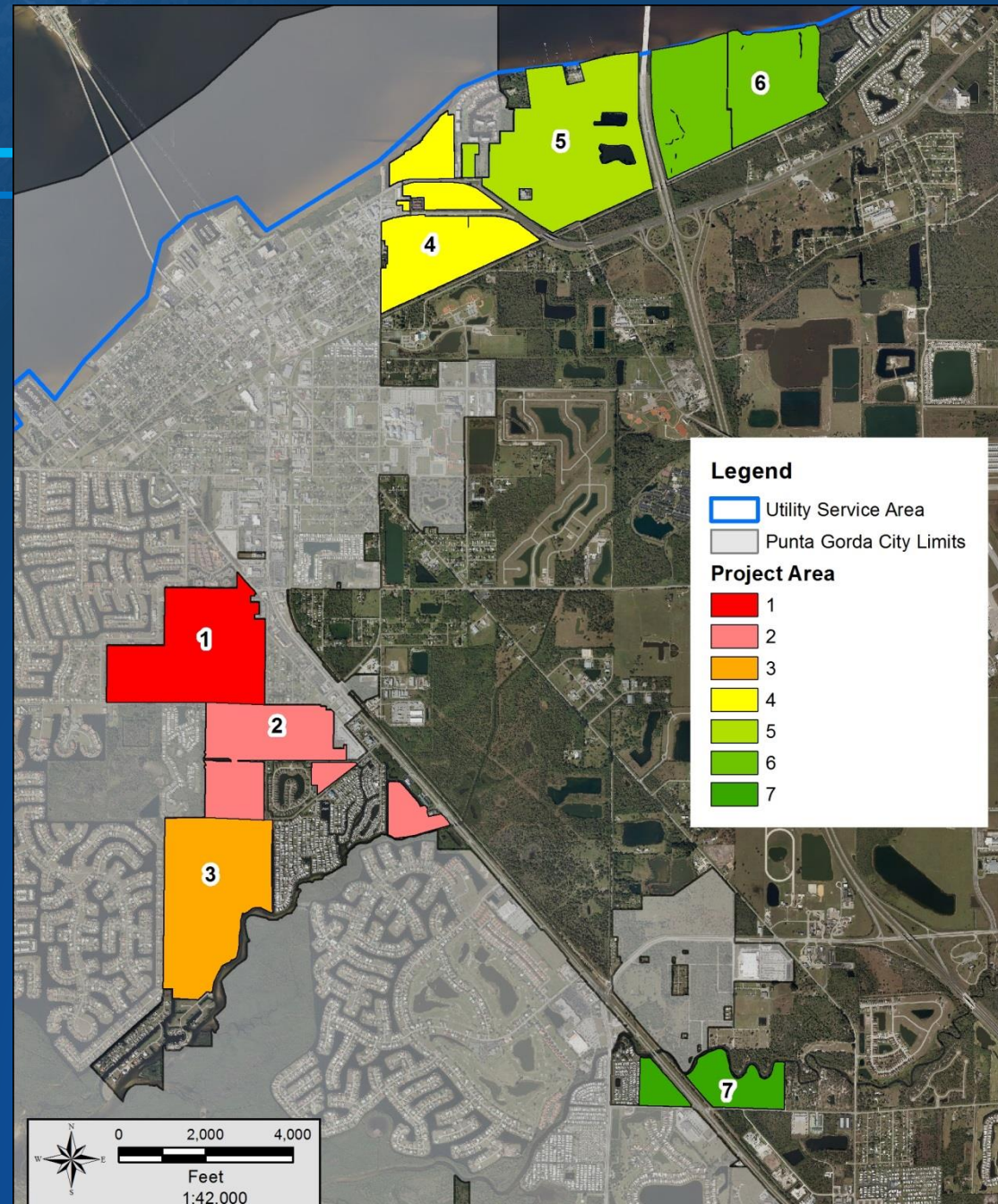
S2S Replacement Selected Option

Gravity Collection System



Prioritized Areas

Project Area	Lots
North Aquí Esta Dr. Waterway Improvement Project (Area 1)	481
South Aquí Esta Dr. Waterway Improvement Project (Area 2)	442
South Rio Villa Dr. Waterway Improvement Project (Area 3)	417
Area 4 (name to be determined)	284
Area 5 (name to be determined)	233
Area 6 (name to be determined)	304
Area 7 (name to be determined)	153
TOTAL	2,314



Prioritized Areas

Area 1: North Aquí Esta Dr. Waterway Improvement Project

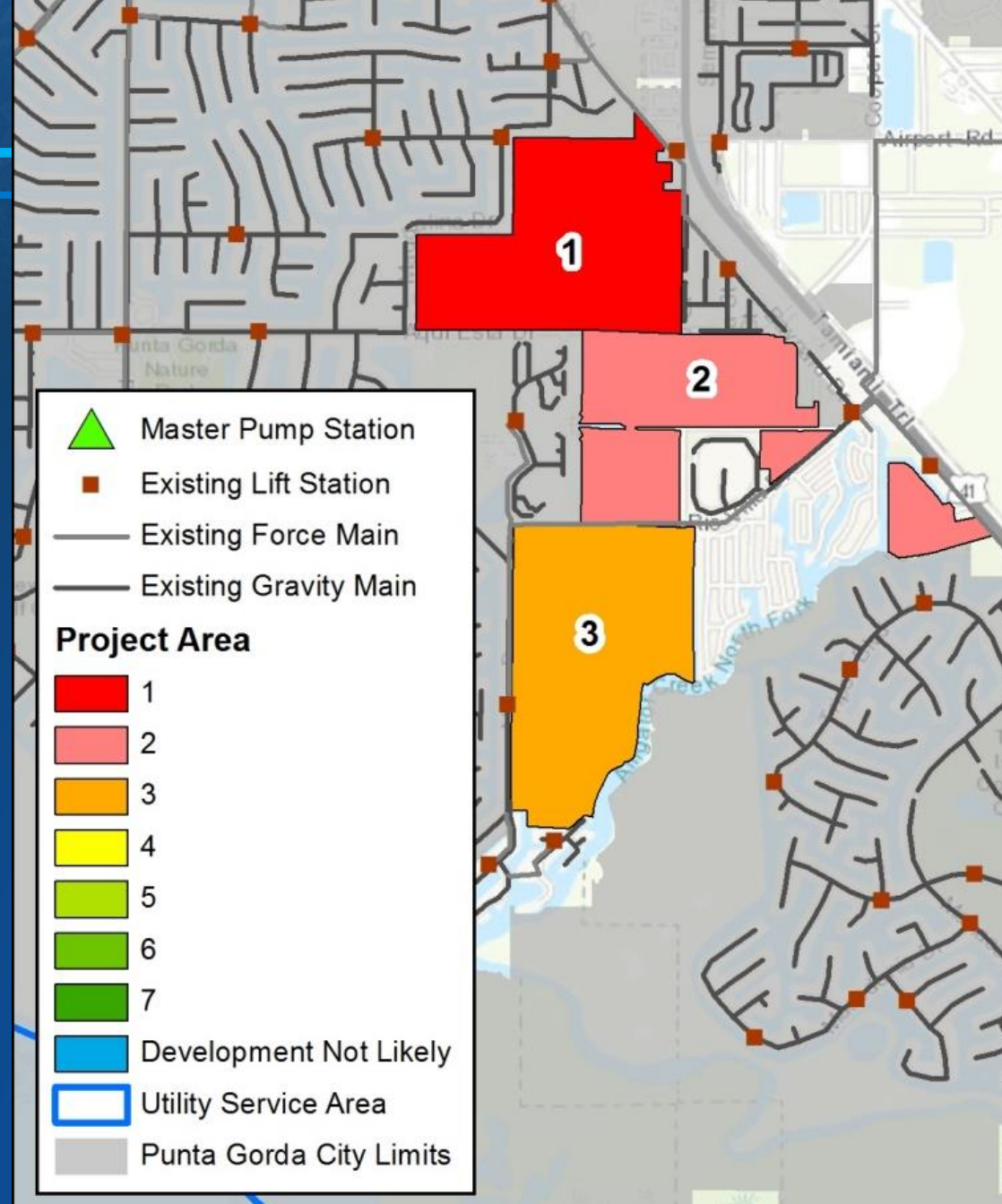
Total Lots	481
Length of Gravity Pipe	30,692 LF
Potential Lift Stations	3
Receiving Lift Station	LS 64

Area 2: South Aquí Esta Dr. Waterway Improvement Project

Total Lots	442
Length of Gravity Pipe	27,571 LF
Potential Lift Stations	3
Receiving Lift Station	LS 64

Area 3: South Rio Villa Dr. Waterway Improvement Project

Total Lots	417
Length of Gravity Pipe	24,887 LF
Potential Lift Stations	3
Receiving Lift Station	LS 64

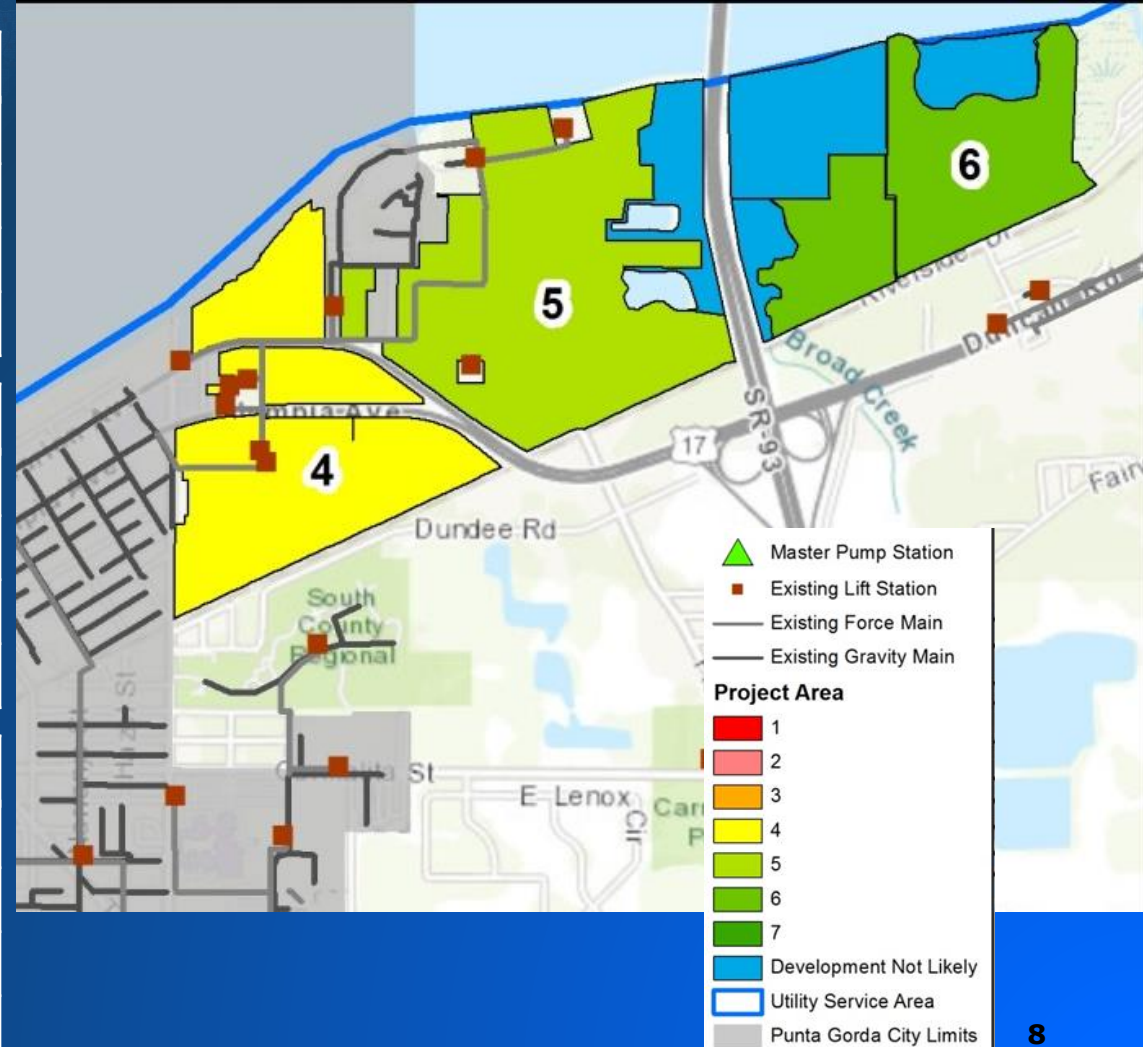


Prioritized Areas

Project Area 4	
Total Lots	284
Length of Gravity Pipe	31,820 LF
Potential Lift Stations	4
Receiving Lift Station	LS 113

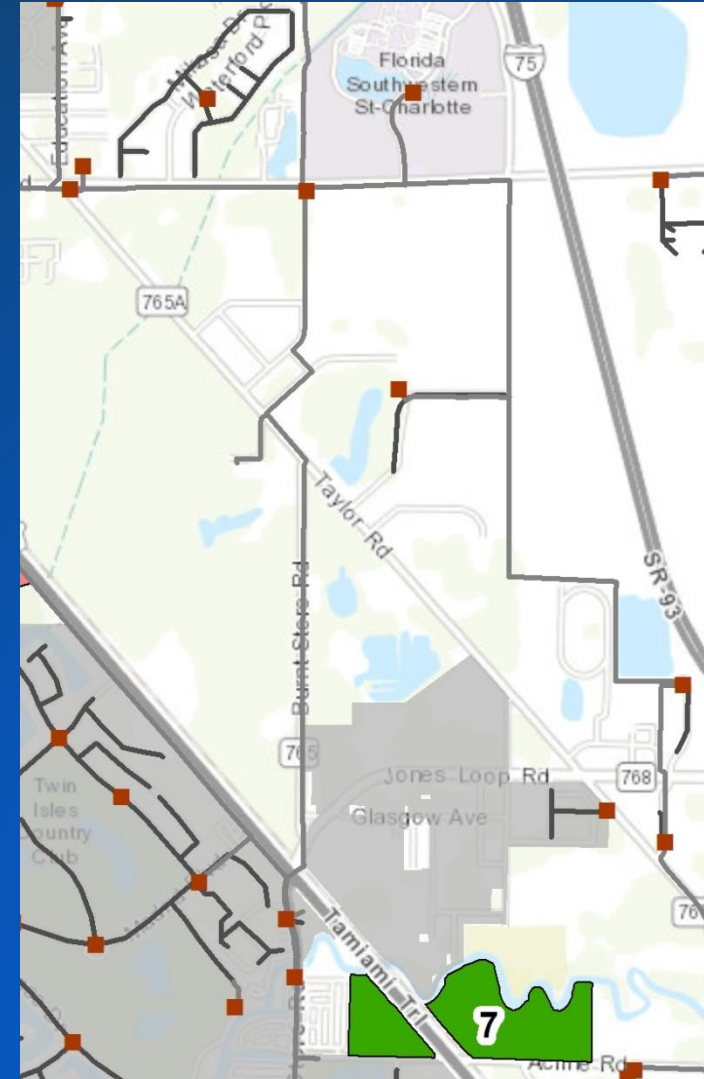
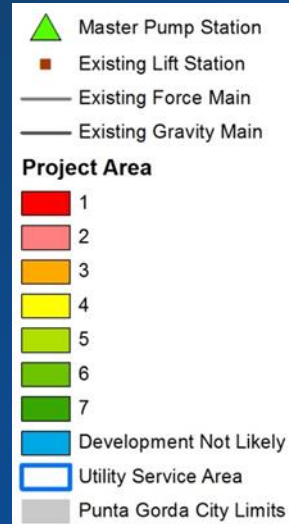
Project Area 5	
Total Lots	233
Length of Gravity Pipe	33,660 LF
Potential Lift Stations	4
Receiving Lift Station	LS 66

Project Area 6	
Total Lots	304
Length of Gravity Pipe	22,576 LF
Potential Lift Stations	3
Receiving Lift Station	WWTP



Prioritized Areas

Project Area 7	
Total Lots	153
Length of Gravity Pipe	11,753 LF
Potential Lift Stations	2
Receiving Lift Station	LS 60



Capital Improvement Plan

Project Area	Years 1 – 3	Years 4 – 6	Years 7 – 9
1	\$11,028,000	\$ -	\$ -
2	\$ -	\$9,952,000	\$ -
3	\$ -	\$ -	\$9,065,000
4	\$ -	\$ -	\$ -
5	\$ -	\$ -	\$ -
6	\$ -	\$ -	
7	\$ -	\$ -	\$ -
Total Collection System Costs	\$11,028,000	\$9,952,000	\$9,065,000
Total Transmission System Costs	\$3,308,400	\$2,985,600	\$2,719,500
Total S2S Costs	\$14,336,400	\$12,937,600	\$11,784,500
Years 1 -9 Capital Cost	\$39,058,500		

Capital Improvement Plan

Project Area	Years 10 – 12	Years 13 – 15	Years 16 – 18	Years 19 – 21
1	\$ -	\$ -	\$ -	\$ -
2	\$ -	\$ -	\$ -	\$ -
3	\$ -	\$ -	\$ -	\$ -
4	\$10,455,000	\$ -	\$ -	\$ -
5	\$ -	\$10,754,000	\$ -	\$ -
6	\$ -	\$ -	\$7,885,000	\$ -
7		\$ -	\$ -	\$4,081,000
Total Collection System Costs	\$10,455,000	\$10,754,000	\$7,885,000	\$4,081,000
Total Transmission System Costs	\$3,136,500	\$3,226,200	\$2,365,500	\$1,224,300
Total S2S Costs	\$13,591,500	\$13,980,200	\$10,250,500	\$5,305,300
Years 10-21 Capital Cost	\$43,127,500			

Total Cost over 20 years \$ 82,186,000

- Sewer Master Plan Financial Element
- S2S Financial Model
 - Interactive financial model with dashboard
 - 9-year project funding scenario
 - Priority Areas 1 – 3

- All S2S project areas are currently served water by the City
 - Mandatory sewer connection when available
 - City utility operations
 - Assumes current utility rates (i.e., no surcharges other than outside-city where applicable)
 - S2S area is not in City limits (County residents)

- Financial Model Assumptions – Priority Areas 1 - 3
 - Implement construction FY 2021 – FY 2029
 - 3% annual construction inflation factor
 - Project financing assumptions
 - Project management and financing by City
 - Admin allowance 4% of construction costs
 - Design and construction funded by:
 - SRF loans, Infrastructure Funds, Grants, Legislative Appropriations

Construction Funding Source	Payback
1. SRF Loans	Primarily from non-ad valorem property assessments, secondarily from a portion of monthly sewer bill
2. Infrastructure Tax (Sales Tax)	None
3. Grants	None (matching achieved via SRF Loans or other sources)
4. Legislative Appropriation	None

Project Areas 1 – 3 Collection System Costs

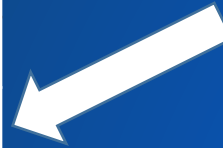
Project Area	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	\$3,676,000	\$3,676,000	\$3,676,000						
2				3,317,333	3,317,333	3,317,333			
3							3,021,667	3,021,667	3,021,667
Total	\$3,676,000	\$3,676,000	\$3,676,000	\$3,317,333	\$3,317,333	\$3,317,333	\$3,021,667	\$3,021,667	\$3,021,667
	9 Year Total: \$30,045,000								
Inflation %		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Cumulative	9.3%	12.6%	16.0%	19.4%	23.0%	26.7%	30.5%	34.4%	38.5%
Total (Inflated)	\$4,017,900	\$4,138,400	\$4,262,600	\$3,962,100	\$4,080,900	\$4,203,300	\$3,943,600	\$4,061,900	\$4,183,700
	Inflation adjusted total: \$36,854,400								

Note: Assumes each project area costs are equally distributed among each three year period

Project Areas 1 – 3 S2S Funding Requirement

	9-Year Total
Collection System Costs	\$36,854,400
Transmission System Costs (Inflated)	11,056,400
Total Collection & Transmission System Costs	\$47,910,800
Administrative Cost	\$1,916,500
Total Costs	\$49,827,300
Less: Transmission System Costs	(\$11,056,400)
S2S Funding Requirement	\$38,770,900

Note: The costs associated with the transmission system improvements including lift stations and force mains will be covered by wastewater capacity fees and other utility funding sources.



Description	9-Year Total	Comment
Funding Sources:		
County Infrastructure Funds (Sales Tax) *	\$9.5 M	Necessary contribution to bring property assessment aligned with County SMP
City Infrastructure Tax / Other Funds *	\$9.5 M	Funds a portion of the capital cost difference between vacuum and gravity
Prepayments	\$0.0 M	None assumed, any prepayments will reduce borrowing requirements
Grants	\$3.9 M	10% of project costs
SRF Loan	\$16.0 M	Remaining amount not funded from other sources (to be repaid by property assessments and new user utility rates)
Total Funding Sources	\$38.8 M	

Project Funding

Description	9-Year Total	2021	2022	2023	2024	2025	2026	2027	2028	2029
Collection System Costs	\$38.8 M	\$4.2 M	\$4.4 M	\$4.5 M	\$4.2 M	\$4.3 M	\$4.4 M	\$4.1 M	\$4.3 M	\$4.4 M
Funding Sources:										
SRF Loan Project Funds	\$16.0 M	\$1.7 M	\$1.8 M	\$1.9 M	\$1.6 M	\$1.7 M	\$1.9 M	\$1.6 M	\$1.7 M	\$1.9 M
County Infrastructure Funds (Sales Tax)	\$9.5 M	\$1.1 M	\$1.1 M	\$1.1 M	\$1.1 M	\$1.1 M	\$1.1 M	\$1.1 M	\$1.1 M	\$1.1 M
City Funds/City Infrastructure Funds	\$9.5 M	\$1.1 M	\$1.1 M	\$1.1 M	\$1.1 M	\$1.1 M	\$1.1 M	\$1.1 M	\$1.1 M	\$1.1 M
Prepayments	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M
Grants	\$3.9 M	\$0.4 M	\$0.4 M	\$0.4 M	\$0.4 M	\$0.4 M	\$0.4 M	\$0.4 M	\$0.4 M	\$0.4 M
Unfunded	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M	\$0.0 M
Total Funding Sources	\$38.8 M	\$4.2 M	\$4.4 M	\$4.5 M	\$4.2 M	\$4.3 M	\$4.4 M	\$4.1 M	\$4.3 M	\$4.4 M

- 10% grants/legislative appropriations
- \$2.1/year Infrastructure funds (City & County Portion)
- SRF loans for remainder

Customer Cost

- Property assessment (on a monthly basis) and sewer bill within affordability thresholds (<2.5% of MHI)

Description	Amount
Property Owner Assessment (Monthly)	\$59.26
Typical Monthly Residential Sewer Bill at 3,500 Gallons (Outside-City Rates)	\$41.09
Total Monthly Cost	\$100.35
Median Household Income:	
Annual	\$55,287
Monthly	\$4,607
Wastewater Affordability Target	2.5%
Monthly Cost Achieved	2.2%

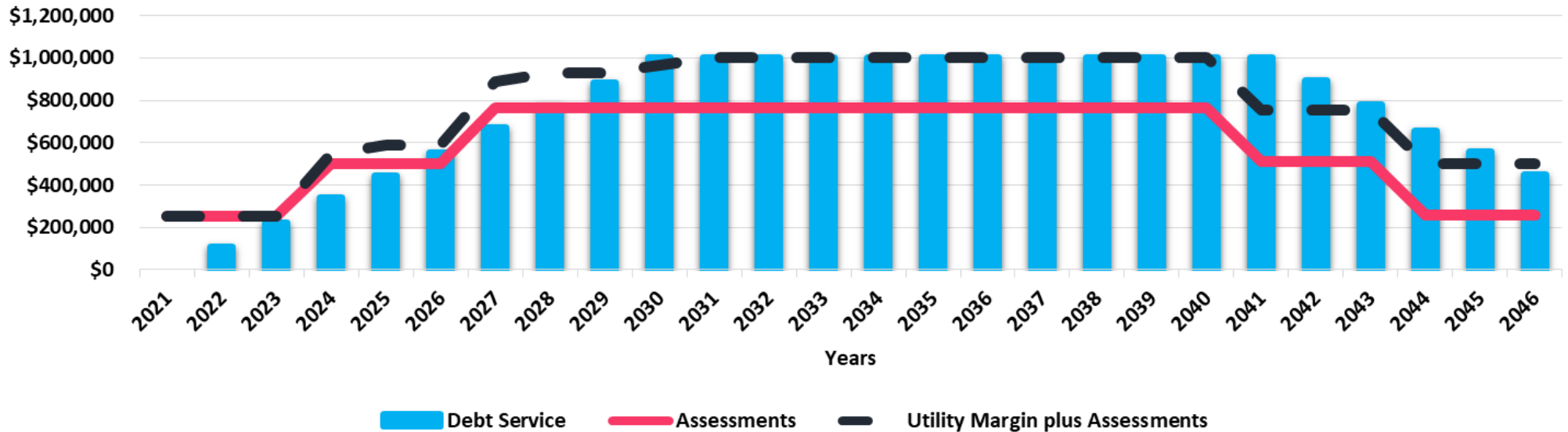
- Property owner financing of improvements
- Based on 20 Year SRF funding terms
- Connection fee also financed

	Pre-paid	Years	Rate	Property Owner Cost with 4% Early Pay Discount (Annual)	Property Owner Cost with 4% Early Pay Discount (Monthly)
System Connection Fee	\$2,677	20	2.0%	\$169.97	\$14.16
Assessment	\$8,523	20	2.0%	\$541.17	\$45.10
Total	\$11,200			\$711.14	\$59.26

Year 1 program;
assessment amount to be
indexed 3% annually

- Full assessment begins with initial project year
- Service availability within 1 year of construction completion
 - City will bill sewer whether or not physically connected
- Assumes \$15/sewer bill (new S2S customers) used for SRF debt funding
 - Recognizes economies of serving these new customers
 - Customers pay full sewer rate, but City's operating costs do not increase by the full rate per customer
 - "funding rule" not an accounting exercise

SEWER COLLECTION EXPANSION DEBT SERVICE AND ASSESSMENT REVENUE



Note: Debt service shown above reflects approximately \$16 million of SRF loans.

- Funding plan assumes 10% grant funding
- Assumes City will use infrastructure funds or other funds to cover the capital cost difference between vacuum and gravity collection systems
- County infrastructure tax use based on “buying-down” property assessment to Charlotte County Sewer Master Plan (SMP) level
- Property owners assessment assumed to be the same as County SMP