

Antonia Hover

From: Office of Commissioner Fay
Sent: Tuesday, September 28, 2021 1:45 PM
To: Commissioner Correspondence
Subject: FW: Sewer Expansion Docket# 20200226-SU
Attachments: 2021-0927 Sewer Expansion Docket #20200226-SU Memo.pdf

Please place the attached memo in Docket No. 20200226

Thanks

Veronica D. Washington

Executive Assistant to Commissioner Andrew Fay
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399
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vwashing@psc.state.fl.us



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From: Castillo, Delmis <Delmis.Castillo@charlottecountyfl.gov>
Sent: Tuesday, September 28, 2021 1:26 PM
To: Office of Commissioner La Rosa <Commissioner.LaRosa@psc.state.fl.us>; Office of Commissioner Graham <Commissioner.Graham@PSC.STATE.FL.US>; Office of Chairman Clark <Commissioner.Clark@psc.state.fl.us>; Office of Commissioner Fay <Commissioner.Fay@psc.state.fl.us>; Office of Commissioner Passidomo <Commissioner.Passidomo@psc.state.fl.us>; Records Clerk <CLERK@PSC.STATE.FL.US>
Cc: Rudy, Craig <Craig.Rudy@charlottecountyfl.gov>; Moody, Brandon <Brandon.Moody@charlottecountyfl.gov>; Jack Boyer (lwjd777@yahoo.com) <lwjd777@yahoo.com>
Subject: Sewer Expansion Docket# 20200226-SU

Good Afternoon Commissioners,

Please see the attached memo from Charlotte County Utilities Director and Water Quality Manager regarding Sewer Expansion Docket# 20200226-SU.

Thanks,

Delmis Castillo

Administrative Services Supervisor

Charlotte County Utilities

25550 Harbor View Rd, Suite 1

Port Charlotte, FL 33980

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Delivering Exceptional Service



September 27, 2021

Florida Public Service Commission
Atten: Clerk
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

re: Docket # 20200226-SU

To whom it may concern:

Charlotte County Utilities and Administration Departments submit this letter in support of the expansion of sewer services to Knight, Don Pedro, and Little Gasparilla Islands. According to Charlotte County's 2050 Comprehensive Plan, extension of water and sewer services throughout the unincorporated portions of the county is considered an integral part of Charlotte County's development strategy. During the past decade the County has made significant progress in studying and understanding the impacts of septic systems. These efforts indicate that negative environmental impacts of septic tanks to coastal Charlotte County are quantifiable. The County has thus been working to promote sewer expansion through legislation, planning, and budgeting. The County's support of sewerage its barrier islands is in keeping with the approved sewer master plan and can ultimately be consequential to long-term protection of the surrounding waters.

During the 1960's it was first realized that the large amount septic systems installed as part of the numerous land sales in South West Florida were starting to have environmental impacts. Properly functioning septic systems rely on drain fields with sufficient filtration distance to allow for attenuation of nutrients and pathogens prior to reaching groundwater. For several years, Charlotte County has funded efforts to determine the potential contribution of septic tanks to nutrient concentrations in surface waters. In 2016, the Harbor Branch Oceanographic Institute published a nutrient source assessment of surface waters in residential portions of coastal Charlotte County using sucralose and stable nitrogen isotopes commonly found in wastewater. They concluded the following:

Groundwater samples revealed a strong STE [Septic Tank Effluent] signal based on elevated nutrient concentrations, $\delta^{15}N$ values, and sucralose concentrations. These data combined with the elevated BOD values observed during the reconnaissance sampling, indicate that STE contaminates shallow groundwaters and surface waters in Charlotte County and represent a significant source of nutrient and bacterial pollution in Charlotte Harbor. (Lapointe, 2016)

Since the issuance of that report, Charlotte County has commissioned multiple studies demonstrating the positive impact of septic to sewer conversions on nutrient concentration in stormwater and

groundwater, as well as the rate and direction of flow from groundwater near septic systems to surface water bodies. These reports are available for review upon request.

When analysis indicates that a sanitary sewer treatment system (including septic systems) is adversely impacting the environment, the County has a responsibility to promote the repair or replacement of those systems. During a recent inspection of Knight, Don Pedro, and Little Gasparilla Islands, county staff noted numerous residential septic tanks and drain fields buried at or below the mean ground elevation. These installations are likely not meeting modern drain field requirements, based on observations of more recent elevated septic tank installations on the island. This lack of sufficient filtration capacity will be exacerbated if sea level rise continues as predicted along the coast. As base sea level elevation increases, the distance between drain field outlets and the water table will decrease, generating additional concerns over the efficacy of septic systems in the area. Extending sewer coverage to the islands eliminates these concerns.

The Comprehensive Plan states that the County shall encourage sanitary sewer disposal agreements whereby package treatment plants are to be replaced by treatment facilities and shall attempt to reduce the percentage of septic systems serving new development. It is important to note that the two package treatment plants present on the islands are nearing their end-of-life and as such will soon need to be refurbished or replaced, at expense to the taxpayers receiving waste treatment services from those facilities. Expansion of sewer service to the islands will eliminate the need (and therefore unnecessary cost) to refurbish those facilities.

The Comprehensive Plan allows the county to install water distribution and wastewater collection lines in a Rural Service Area (such as the barrier islands) only if deemed necessary to address situations where the public health, safety, and welfare are in danger; otherwise, expansion must be conducted by utilities regulated by the Florida Public Service Commission. The Charlotte County Sewer Master Plan (2017) Capital Improvements Project (CIP) Information Sheets W2 & W5 (provided as attachments to this letter) reflect this demarcation of responsibility, as Charlotte County Utilities is indicated as tasked with only providing the infrastructure to transfer wastewater from the islands to County treatment facilities located on the mainland. That said, the following project elements are also described on the aforementioned Information Sheets:

- The project boundary includes the existing treatment plants and the entire islands;
- The Project Details section indicates all lots in the project area are expected to be served by the new sewer conveyance system, not just those properties currently served by the existing treatment plants, and;
- Vacuum mains are described as a component of this project, indicating that individual properties are expected to be connected to the pumping station (otherwise vacuum mains would be unnecessary for this type of project).

Based on the description in the Information Sheets, it is apparent that the Plan authors, and the Commissioners who approved the Plan, expect sewer coverage to be extended throughout Charlotte County's barrier islands.

The Comprehensive Plan dictates that Charlotte County Utilities shall develop a cost-effective sewer expansion program consistent with the Goals, Objectives, and Policies of the Comprehensive Plan, with

the intent of reducing the impact of pollutants on the natural environment and preserving groundwater quality. It is our position that extending sewer coverage to the barrier islands of Charlotte County is in keeping with the goals and mandates stated herein, and these proposed activities abide by the directives laid forth in the County's Sewer Master Plan. We appreciate your consideration of this matter and stand ready to answer any questions you may have regarding the County's sewer expansion efforts.

Sincerely,



Craig Rudy, Utilities Director



Brandon Moody, Water Quality Manager

Attachments:

Don Pedro CIP Information Sheet

L.G.I. CIP Information Sheet

CAPITAL IMPROVEMENTS PROJECT INFORMATION SHEET

Project Name: W2 - Don Pedro

Predecessor CIP: W-UTLCON-DP, W-FM-10

Project Area Served: W2

DESCRIPTION: This project includes the connection of a private utility's service area. The existing sewer system infrastructure will be used for wastewater collection. The existing WWTP will be converted to a pump station and the force main identified in the predecessor CIP will be used to convey wastewater flows to the existing system.

ENVIRONMENTAL DETAILS

Overall Impact Score

4.4/5.0

Nitrogen Load Reduction

8,500 pounds per year

PROJECT NEED

- Reduce nitrogen loading to environment
- Increase capacity to accommodate design flows
- Reduce O&M requirements

EST. CONSTRUCTION TIME

Start: Year 6

End: Year 7

PROJECT DETAILS

West County

No. of Occupied Lots

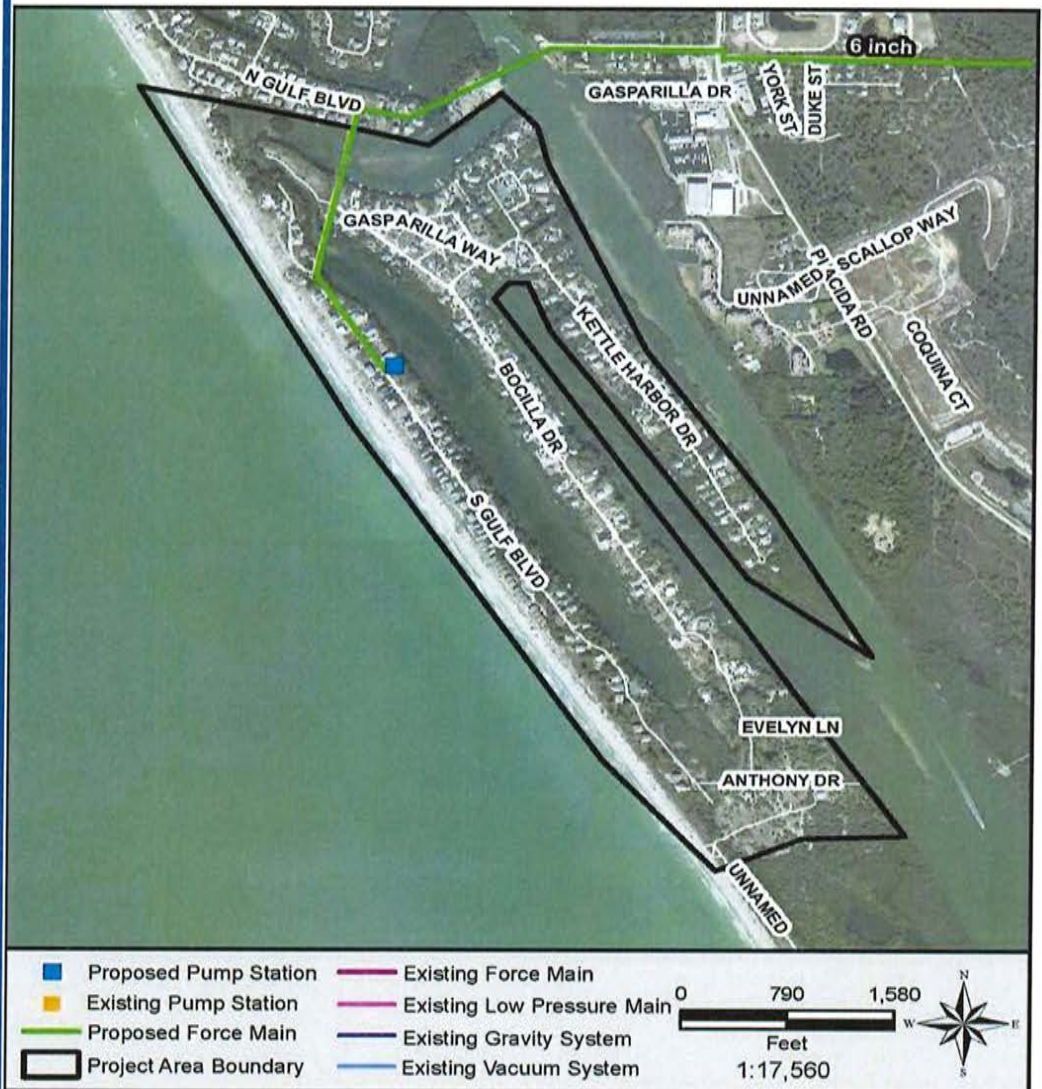
261

No. of Vacant Lots

168

No. of Total Lots

429



Expenditure Plan (\$1000)

	Year 5	Year 6	Year 7	Year 8	Year 9	Total
Professional Services	630	252	252			1,134
Land (or ROW)	30					30
Construction Cost		2,568	2,568			5,136
Total Project Cost	660	2,820	2,820			6,300

(Costs expressed in 2017 dollars)

PROJECT COMPONENTS

- Pump Station
- Force Mains
- Vacuum Mains
- Low Pressure Mains
- Gravity Mains

CAPITAL IMPROVEMENTS PROJECT INFORMATION SHEET

Project Name: W5 - L.G.I.

Predecessor CIP: W-UTLCON-HBBC, W-FM-12

Project Area Served: W5

DESCRIPTION: This project includes the connection of a private utility's service area. The existing sewer system infrastructure will be used for wastewater collection. The existing WWTP will be converted to a pump station and the force main identified in the predecessor CIP will be used to convey wastewater flows to the existing system.

ENVIRONMENTAL DETAILS

Overall Impact Score

4.7/5.0

Nitrogen Load Reduction

10,500 pounds per year

PROJECT NEED

- Reduce nitrogen loading to environment
- Increase capacity to accommodate design flows
- Reduce O&M requirements

EST. CONSTRUCTION TIME

Start: Year 4

End: Year 5

PROJECT DETAILS

West County

No. of Occupied Lots

500

No. of Vacant Lots

267

No. of Total Lots

767



PROJECT COMPONENTS

- Pump Station
- Force Mains
- Vacuum Mains
- Low Pressure Mains
- Gravity Mains

Expenditure Plan (\$1000)

	Year 3	Year 4	Year 5	Year 6	Year 7	Total
Professional Services	1,040	416	416			1,872
Land (or ROW)	48					48
Construction Cost		4,240	4,240			8,480
Total Project Cost	1,088	4,656	4,656			10,400

(Costs expressed in 2017 dollars)