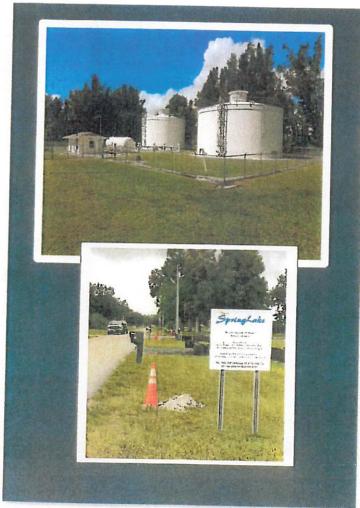


# DISTRICT ENGINEER ANNUAL REPORT

## FISCAL YEAR OCTOBER 2020 THROUGH SEPTEMBER 2021

November 10, 2021





Tim McKenna – Chairman Kay Gorham – Secretary Sue Dean – Asst. Secretary Bill Lawens – Supervisor Brian Acker – Supervisor

Joe DeCerbo – District Manager Clay Shrum – Director of Operations Diane Angell – Administrator

## District Engineer:

Gene R. Schriner, P.E.,

Spring Lake Improvement District

District Engineer

Craig A. Smith & Associates, Inc.

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11-1-2021

Date

## Spring Lake Improvement District Annual District Engineer Report FY October 2020 – September 2021

November 10, 2021





As District Engineer, I am pleased to provide the SLID Board of Supervisors (BOS) with the Annual Report for the FY 2020-2021 regarding the status of the "Works of the District". This report is intended to update the Board regarding ongoing major projects, current development, and activities affecting the District, and not intended for updating the everyday activities of the District. The Report is intended to inform the BOS of potential identified deficiencies requiring action, along with status updates of ongoing projects.

The District continues to expand the water and sewer utility system to expand the District service areas, enhance/expand available water and sewer capacity to attract businesses, and attract additional needed housing, including service reliability. Interest in the District by builders, developers and businesses remains strong and expanding. Current COVID concerns remain with minimal impact to the utility expansion and housing market. SLID is

becoming a quality destination for all types of people seeking relocation. Retail, housing and recreation continues to be the expansion priority.

The 2020-2021 FY continues to be a productive year/time with respect to District water and sewer infrastructure improvements, developer interest in the community, proactive planning, grant submittals and overall progress. District operating permits continue to be in compliance with no major deficiencies, other than those planned for improvement, which have been identified. There continues to be development interest in the District at all levels. A brief listing of recently completed and on-going projects are as follows:

• 2019 Potable Water System Improvement Plan Program - FDEP SRF #DW280531/0; Approved - Design complete; Construction bids awarded & proceeding.

0	WTP #1 - Electrical upgrades/emergency power; Received bids	\$880,970
0	WTP #2 - Total refurbishment and commissioning; Received bids	\$2,372,654
	Pinedale Estates – Water main extension; Under construction	\$511,000
0	US98 Watermain Loop – Water main extension; Under construction	\$286,385

\$4,051,000

Total bid and engineering = \$4,896,009

Total loan available = \$5,964,258

- 2019 State Appropriation US98 Sewer Service LPA0069
  - Extension of Forcemain along US98 Corridor from Floral Drive to Arbuckle Creek/ RV Park - Construction complete
  - o Duane Palmer Lift Station Construction complete; warranty issues remain (check valve replacement)

Total grant award \$1,096,980

- Signature H Golf Course. Planned improvements to include golf course and club house renovation, planned town center; village center, bobcat cottages, multi-family residences and apartments are moving forward.
- Bark Park (dog park) Continued expansion, additions and upgrades.
- Continued upgrades to **STA ECO Park**. Final QAPP completion and approval through EPA, FDEP & SFWMD.
- Water Main Extension to RV Park. District funded reimbursement by developer; project complete. Total expenditure construction and engineering = \$341,571

- Fiber optic installation and expansion district-wide county / federal ARPA grant \$1.25 million anticipate out for RFP by 12-1-2021, County participation in RFP process.
- Unique Self Storage: Construction in process, scheduled completion 1-15-2022. District water and sewer service. Future utility fees and capacity fees.
- MHM Development Family Dollar Store. Site plan review complete, preliminary design/final design ongoing, and permitting in progress. District water and sewer service. District stormwater treatment and conveyance, Future utility revenue. Capacity fees.
- Cornerstone Materials LLC /PBJ's Development LLS. Lemongrass ECO apartments. 104 units proposed. District water and sewer. District stormwater treatment and conveyance. Future utility fees. Capacity fees. Ground breaking set for 11/11/2021.
- **Green Enterprises.** Mr. Gary Green plans for independent living complex on property adjacent to District HQ. In planning stage.
- In addition to this project, Green has purchased and closed on 104 properties in Blue Heron.
- Zephyr Homes. Continues to build single family and duplexes.
- Village 10. A utility payment plan has been implemented. A check in the amount of \$55,953 was received 9-28-21.
- **ECO Village**. Continued land acquisition, completing final design and permitting of infrastructure water & sewer. Future utility revenue and capacity fees. Service availability to the property by District grant.

The District has completed numerous projects and are in the process of beginning new projects of greater substantial impact to the "Works of the District", adding assets, revenue and positive impacts to the community. These projects, for the most part, are being accomplished through grant funding, legislative appropriations, low interest long term loans, capacity fees, utility fees, and private investments. The BOS, District Staff and team of professionals continually work diligently to make progress on current and future planned projects to position the District for continued future growth, added reliability to the infrastructure and potential for future commercial growth increasing property values. The addition of high speed fiber optic communication will greatly advance the District for development appeal. The new ownership of the golf course continues to plan and construct course upgrades, clubhouse improvements and community improvements throughout. Signature H continues to expand their team and influence of developers. The District

completed expansion of sewer forcemains and service to the existing transmission network including service to the US 98 commercial corridor from Floral Road to Village X east of Arbuckle Creek with added new reliable and efficient treatment capacity. The District is adding additional water treatment, storage and high service pumping capacity through the acquisition of the second water treatment plant site at the west end of the community which provides an additional 2.0+ MGD of capacity. Upon completion of the WTP#2 renovation, SLID will have sufficient capacity to serve the entire District 's future demands. Water service has expanded to the south side of US 98 at the west end of the District at the intersection of US 98 and Madrid Drive to Pinedale Estates and also planned for the east side at Thunder The new STA (Stormwater Treatment Area) adds additional stormwater quality treatment and added flood protection offering future development incentives to build in SLID. The District (located on the north shores of Lake Istokpoga) is poised to become an attractive destination for development in Highlands County. The STA brings the District into compliance with the surface water permit and enhances development opportunity through the additional water quality capacity available.

As part of the duties, the District Engineer attended District staff meetings, BOS meetings, site project meetings, developer meetings and regulatory agency meetings as requested by We continue to solicit numerous agencies for grant opportunities for the District. infrastructure. We are in communication with the District Manager, Director of Operations, administrative staff and BOS regularly and we are always available. We have addressed permitting issues, drainage improvements, answered agency requests, made site visits to correct field issues, assisted District field operations and responded to BOS requests in a timely manner. Major priority and emphasis this past year was on the sewer forcemain network expansion, water improvements, enhancing private development, updating rates and impact fees, finalizing stormwater issues, collaborating with the airport for shared stormwater management through SLID's STA and stormwater water treatment capacity, investigating additional protection to the stormwater pump station to the incoming bar screens and finalizing the STA project QAPP. The District is working with Excavation Point Contractors to address warranty items regarding the master lift station wet well coating failures (adjacent to County Club Way). Duane Palmer lift station check valve warranty for replacement. Needed repair/replacement of the existing "dog house" manhole serving the club house at Country Club Way including service to the STEP systems. The STEP systems generate high concentrations of corrosive hydrogen sulfide gases found in the lift station and manholes.



## A SUMMARY OF THE PROJECTS AND ACTIVITIES ARE AS FOLLOWS:

## Water Control Plan/Conceptual Permit Status

The SFWMD Conceptual Permit was issued on January 27, 2014. The permit is issued for conceptual authorization and approval to modify the existing Plan of Reclamation to reflect a surface water management system that can be operated and maintained on property owned by SLID. The original POR (Plan of Reclamation) had been partially constructed. The new revised POR includes new lakes, STAs and new and modified internal water control to allow SLID more efficient operation of the surface water management system, added flood protection and required water quality treatment. Desilting of the canals (in original POR) is no longer a priority due to satisfactory hydraulic conveyance performance of the canal system, the lack of any bank failures or erosion and through visual site inspections. This item will require continued monitoring and updates.

The Water Control Plan (WCP) needs to be updated to reflect the District Improvements. The District Manager, in collaboration with the District Engineer, is in the process of preparing the update.

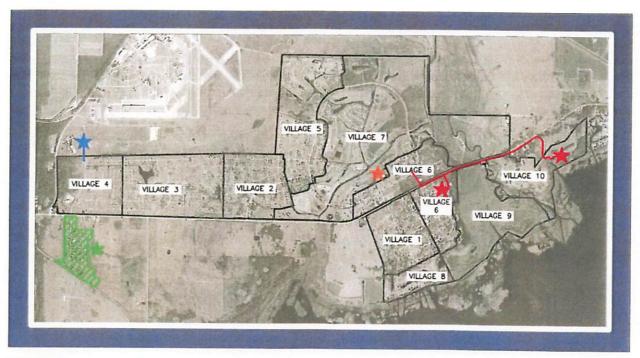
### Potable Water System Improvements

SLID water utilities is in the process of adding water transmission line upgrades and improvements, line extensions to service the US98 corridor, added watermain loop to the south side of US98 service area for added reliability and pressure expansion to east of Arbuckle Creek, emergency power for WTP #1 and renovation including commissioning of WTP#2 to add capacity and reliability, redundancy and pressure including providing requested water service and fire protection throughout Pinedale Estates.

The District was awarded an SRF loan by the State Revolving Fund Program to fund these water improvements up to the amount of \$5,964,258. A water facilities plan engineering report outlining the scope of the four projects needed to improve the water

system, add reliability, increase capacity, enlarge the service area and provide more reliable fire protection. Summary of the four projects are as follows:

- WTP #1 emergency power upgrades; received bids to be awarded\*
- WTP #2 renovation and commissioning of water plant; received bids to be awarded
- o US98 south watermain loop and eastern extension; under construction
- o Pinedale Estates water distribution service; under construction
- \* All project awards are within budget



- \* WTP # 1 Improvements
- ★ WTP # 2 Improvements
- Pinedale Estates WM Extension
- \* Water Main Loop to South Side US98 East of Arbuckle Creek

#### 1. Water Treatment Plant No. 1 (WTP-1)

The purpose of this project is to upgrade the electrical power system at the existing WTP-1 by replacing the original electrical controls at the plant, installing variable frequency drives (VFD's) to the existing four (4) high service pumps, replacing the existing 100 KW emergency generator with a larger 150 KW generator and replacing the existing automatic transfer switch (ATS) with a larger unit for the larger 150 KW emergency generator.

The proposed improvements will include the installation of a small block building to house the proposed electrical control panels and proposed ATS for the larger emergency generator.

The bid project cost for the proposed SLID WTP-1 improvements is \$880,970.



## 2. Water Treatment Plant No. 2 (WTP-2) Rehabilitation / Commissioning

SLID recently purchased an out-of-service water treatment plant previously servicing a defunct TECO power plant including an abandoned groundwater well which was used in the process of a nearby power plant located at Sebring Airport. The purchased portion of the old power plant site currently has a 2,000-gpm production well (capacity of 2.5 mgd±), 400,000-gallon above ground crom storage tank, small miscellaneous buildings, fire pumps, fuel tanks and other miscellaneous equipment. SLID plans to rehabilitate and commission the old facility into their second potable water WTP (WTP#2).

SLID plans to upgrade and expand the facility by installing a new high service quadplex pump station and new structure to serve as a field office and electrical controls building including a separate room for the chemical storage of the hyperchlorination facility to treat the potable water. The site's existing 400,000-gallon above ground storage tank and 2,000-gpm (2.5 mgd) well will be rehabilitated and brought up to FDEP potable water drinking standards. After completion of these proposed improvements, the facility will be placed into operation and connected to SLID's existing system to the south with a new 12-inch diameter transmission WM. The connection will take place approximately 1,400-LF to the south on the northern border of Village 4 at the intersection of Castile Road and Madrid Drive.

The proposed WTP#2 will include the installation of four (4) new high service pumps that will be installed adjacent to the existing above ground storage tank. Three pumps will be rated at 750-gpm at 150-ft TDH and one at 250-gpm at150-ft TDH with variable frequency drives (VFD's). The proposed electrical controls will be installed inside a proposed precast concrete building. It will consist of two (2) air-conditioned rooms. One large room for the electrical controls, instrumentation, and office space. The second room will be for the hypo chlorination metering pump skid with room for a few chemical storage tanks for the sodium hypochlorite storage. The existing 60 HP well pump is in disrepair and will be rebuilt and the discharge piping, fittings, valves, and flow meter will all be replaced.

The plant will require a 250-kw emergency generator to back up the proposed three (3) 50 HP high service pumps, one (1) 20 HP jockey pump, 60 HP potable water well, electrical chemical building, and all other miscellaneous electrical mechanical components.

The bid project cost for the proposed SLID WTP-2 improvements is \$2,372,654.00.



#### 3. Pinedale Estates Watermain

The purpose of this project is to install approximately ± 6,200-LF of 8-inch HDPE potable WM including fire hydrants and water service laterals to serve the existing 50 single family homes in the Pinedale Estates Subdivision.

SLID's existing WM now extends to the intersection of Revson Avenue and US-98 to the southside of US-98. This subdivision is located due south of this intersection on the south side of US-98.

Total bid price of \$511,000.

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Pinedale Estates Water Distribution Plan

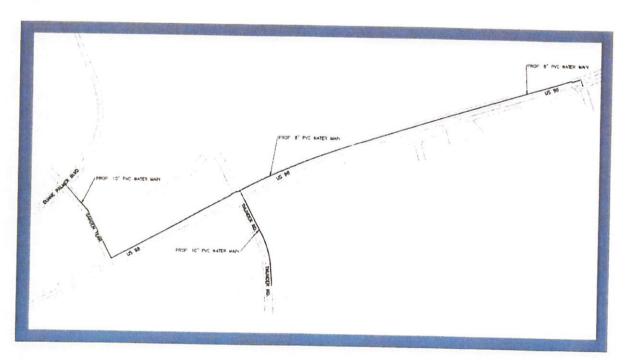
### 4. US-98 WM Expansion and Loop

The scope of work for these proposed improvements includes a 10-inch HDPE potable WM loop to the south side of US-98 and an expansion of SLID's service area to the east side of Arbuckle Creek. A proposed 10-inch WM will connect into the existing 10-inch diameter WM located at the intersection of Duane Palmer Boulevard and Garden Terrace. A 10-inch diameter directional bore under Duane Palmer Blvd will extend the WM south on the east side of Garden Terrace past the Pike Power Inc. transformer to US-98.

The WM along US-98 is proposed to be installed on the north side and continue east approximately 1,330-ft where it will then cross under US-98 at the intersection of Thunder Road. The WM will be installed on the east side of Thunder Road for approximately 840-LF until it connects into the existing 8-inch diameter WM located at the intersection of Longbow Drive and Thunder Road.

At the US-98/Thunder Road crossing, the proposed WM will reduce down to an 8-inch WM and continue east on the north side of US-98 approximately 3,300-LF, under Arbuckle Creek, to the entrance of a proposed RV Park in order to bring potable water and fire protection to the site.

The bid project cost for the proposed Us-98 WM expansion and loop improvements is \$286,385.00.



## • 2019 Legislative Appropriation; US98 Sewer Forcemain

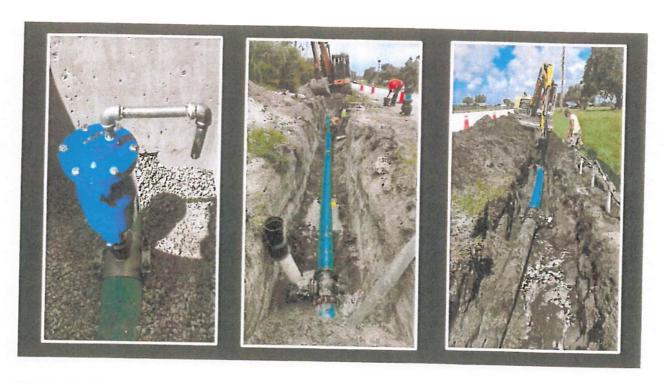
The District received a \$1,096,980 legislative appropriation grant #LPA-0069 on 10/14/19 to install a forcemain along US98. The forcemain is installed from the C-9 Canal to Floral Drive to the west and from the WWTP to the east end of Arbuckle Creek. The construction plans and permits were completed in February 2020 and bids were received 4/2/20.

SLID US Highway 98 / Country Road 700 Forcemain Extension Project includes installation of approximately 12,400 LF of sanitary sewer forcemain to expand the new wastewater Treatment plant's Service Area.

SLID is in need of commercial development and the US98 highway corridor is the ideal location for this type of development. The corridor needs sewer service to be viable. The property frontage is open to development on both the north and south side of the highway.

SLID is installing approximately 12,400 LF of forcemain along this corridor to provide service for development. The forcemain will range from 8" to 10" and service both the north side from the C-9 canal west to Floral Drive and on the south side from the WWTP site to east of Arbuckle Creek. The WWTP and proposed forcemains are sized and designed to handle the flows from this area and future growth.

The US98 sewer forcemain will provide services for existing commercial owners, as well as invite new industry, hospitality and other development along US 98/County Road 800. The improvements can accommodate sanitary sewer transmission services to the WWTP for a combination of existing and future industrial, wholesale, manufacturing, warehousing, return, office and residential customers. SLID has a history of seasonal visitors which includes aviation, raceway, golfing, fishing, and camping enthusiasts. However, the District lacks the sanitary sewer "backbone" forcemain needed to attract growth within the community and along US98 which the proposed project will provide. The state appropriation for this US98 forcemain project is the start of constructing a comprehensive force main network.



### District In-House Work

District staff continues to perform needed maintenance and improvements to the stormwater system. Staff continues to complete drainage improvements affecting the District's overall drainage system throughout the District as needed. District staff is expanding the District lake system increasing attenuation capacity and water quality capacity. This system as a whole is highly effective and enhances the entire flood protection for the neighborhoods within the District while cleaning the water. Additional drainage repairs and improvements are completed as needed. We provide continued consultation and assistance as needed or required on special projects. We are in constant communication with staff on small in-house projects and provide engineering back-up as required. All work performed under our supervision meets all current rules and standards that are applicable. District staff is providing timely service regarding any flooding issues and/or required maintenance of the stormwater infrastructure. We are in the process of updating District policies and procedures for new development, site plan, standards, etc.

## Signature H Progress\

Planned improvements to the golf course are underway. The District continues to coordinate with Signature H regarding expansion of the district lakes and waterways for added retention/storage, water quality treatment and flood protection as outlined in the conceptual stormwater permit. Club house renovations continue along with golf course cabins scheduled for 2022.

#### SLID FY2021-2022

We have reviewed the preliminary budget information as reviewed with the District Manager and have no objection, additions, deletions or comments. SLID has sufficient funds budgeted to adequately maintain and operate the "Works of the District".

#### Staffing

We have been working with the Manager and SLID staff and are happy to mention that SLID staff is very responsive and competent in each field of expertise. The operations of this District are streamlined and at optimum efficiency. The District has added staffing to the utility operations water and wastewater facilities. The staffing of the District is sufficient to maintain and operate the "Works of the District". The Manager, Director of Operations, District Administrator and Superintendents are very knowledgeable of SLID's systems and the district has adequate and competent staff, and has retained best available and up-todate operational tools, instruments and equipment to operate. The District recently acquired GPR instruments to locate underground utilities. The District maintains its equipment, the work sites are clean and orderly, and new/leased equipment is acquired as needed. Staff continues to assist the CAS team in completing work tasks which helps to save the District many thousands of dollars in additional outside fees and services. Joe and Diane both have provided hours of assistance in dealing with the SRF loan process and preparation of necessary forms and data. Joe was instrumental in securing the State Appropriation, SRF loans and assistance with SFWMD, FDOT and USCOE. We work together as a TEAM with SLID staff and this has proven to be successful.

## Recommended Projects for FY 2021-2022

- o 5-year update of WCP
- o Develop Master Utility Plan and update utility rates and charges
- Continue infrastructure expansions as needed
- Continue to grow SLID through private investors, coordinate with existing developers committed to SLID
- Expansion of canals and water bodies as needed for WQ and flood protection
- o Continue to market the US98 corridor
- o Planning for future WWTP capacity needs and expansions
- o Continue hegotiations for Sebring Airport to help pay operational costs
- o Coordinating with County to upgrade selected/needed culverts under district roads.

No. 38821

Gene R. Schalner, P.E., District Engineer

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