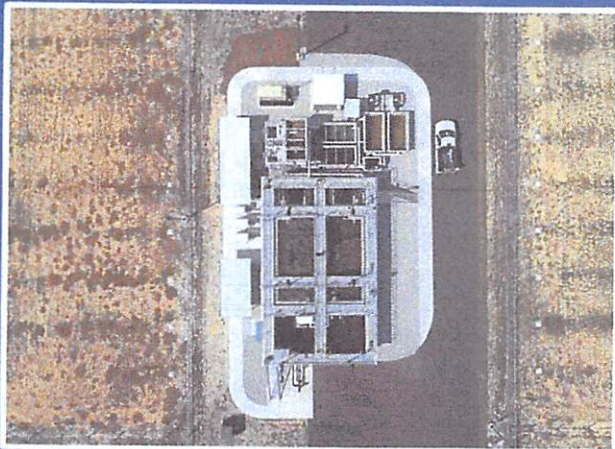




DISTRICT ENGINEER ANNUAL REPORT

FISCAL YEAR
OCTOBER 2019 THROUGH SEPTEMBER 2020
October 14, 2020



Tim McKenna – Chairman
Kay Gorham – Secretary
Bill Lawens – Supervisor
Brian Acker – Supervisor
Melony Culpepper – Supervisor

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

District Engineer:



Gene R. Schriener, P.E.,
Spring Lake Improvement District
District Engineer

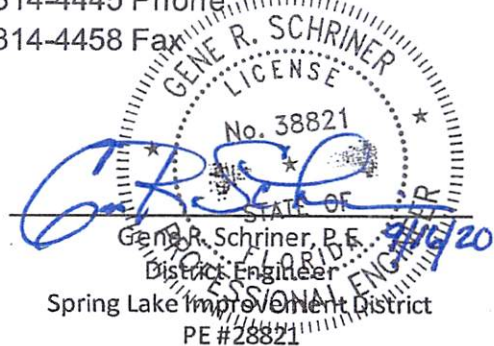
Craig A. Smith & Associates, Inc.

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Gene R. Schriener, P.E.
District Engineer
Spring Lake Improvement District
PE #28821

**Spring Lake Improvement District
Annual District Engineer Report
FY October 2019 – September 2020
October 14, 2020**



As District Engineer, I am pleased to provide the SLID Board of Supervisors (BOS) with the Annual Report for the 2019-2020 FY regarding the status of the “Works of the District”. This report is intended to update the Board regarding the major projects 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 “fruits of our labor” are beginning to blossom. Due to the foresight of the District Manager and Board, the utility improvements are showing dividends. Quality professional and successful developers are choosing SLID as the new destination for growth and development. Signature H, JGS Land Development, Unique Self Storage, Inn the Woods ECO Village, to name a few, and many others. The interest involves resurrection of the golf course to top-notch caliber, construction of a first class RV Park in Village X, development of an ECO village and other commercial development along US 98.

The 2019-2020 FY picks up where it left off last year and 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. The

District continues to improve and expand the utility infrastructure. District operating permits continue to be in compliance and no major deficiencies, other than those planned for improvement, have been identified. There continues to be development interest in the District at all levels. A brief listing of complete and on-going projects addressing current needs are as follows:

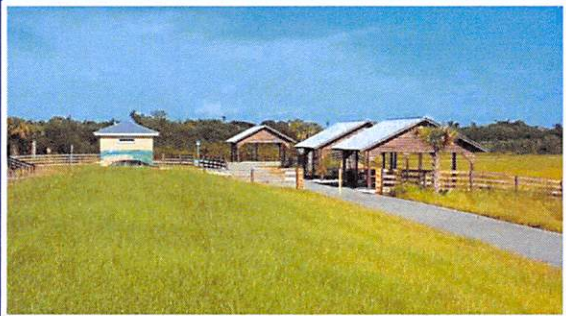
Current and Future Projects:

- 2019 Potable Water System Improvement Plan Program - FDEP SRF #DW280530; Approved 8/14/1 - Design complete; Construction 2021.
 - WTP #1 - Electrical upgrades/emergency power
 - WTP #2 - Total refurbishment and commissioning
 - Pinedale Estates – Water main extension
 - US98 Watermain Loop – Water main extension
- New 80,000 gpd tertiary activated sludge WWTP expandable to 120,000 gpd; SRF funded - Construction complete and operating.
- 2019 State Appropriation – US98 Sewer Service
 - Extension of Forcemain along US98 Corridor from Floral Drive to Arbuckle Creek - Construction complete; Project additions in process.
- Signature H Golf Course purchase and planned improvements to include golf course renovation, planned town center; village center, Bobcat cottages, multi-family residences, apartments and future ALF campus, with more planned.
- Bark Park (dog park) – Expansion, additions and upgrades.
- Continued upgrades to STA ECO Park and Final QAPP completion.
- Completed construction and operation of FM Extension from Golf Course Club House Lift Station along C-9 to US98 and to WWTP.
- Completed New Master L.S. at Country Club - In operation.
- Complete renovation of stormwater pump station and back-up power supply.
- Final design of WTP # 1 & 2 Improvements, Pinedale Estates Watermain Extension; watermain loop to Thunder Road and watermain extension to east of Arbuckle Creek.
- Continued home building and residential planning within Duane Palmer and other areas.

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 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 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 new ownership of the golf course continues to plan and construct course upgrades, clubhouse improvements and community improvements throughout. The District is in the process of expanding and extending 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. This item will be further elaborated in this report. 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 and also planned for the east side at Thunder Road. The new STA (Stormwater Treatment Area) adds additional stormwater quality treatment and added flood protection as exhibited during Hurricane Irma. 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.

As part of the duties, the District Engineer attended District staff meetings, BOS meetings, site project meetings and regulatory agency meetings as requested by the District. We continue to solicit numerous agencies for grant opportunities for 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, stormwater pump station upgrades including emergency power back-up and finalizing the STA project. We assisted the District in renewing and upgrading of the Consumptive Use Permit (CUP) for drinking water withdrawals from the groundwater aquifer. We also assisted the District during storm events.



A SUMMARY OF THE PROJECTS AND ACTIVITIES ARE AS FOLLOWS:

- **Stormwater Treatment Area Project (STA)**

Spring Lake Improvement District (SLID) was originally permitted by WCI with a proposed wet detention system of which only 85% was constructed upon transfer to SLID by WCI. In addition to the remaining system to be constructed, SLID has acquired additional unimproved lands for stormwater purposes to complete the system. This acquired area was previously zoned for large lot (estate) subdivisions. Over 70 acres of these lands are contiguous and a lake-wetland marsh system was constructed and in operation. The stormwater system is a stormwater treatment area or STA. In addition to adding additional stormwater quality treatment and flood protection, the District created a passive ECO park open for public recreational use. The park includes a walking trail, pavilions, restrooms, grills, park benches and parking. The facility attracts wildlife and a variety of plant life. The ECO park is a great amenity for the residents for exercise, fishing, family gatherings, observing wildlife, bird watching, and just to enjoy the beauty of south Florida at SLID. The addition of the STA provides additional water quality treatment benefits prior to discharging into Arbuckle Creek and also provides additional storage during rain events reducing flooding. SLID has no additional water quality or flood protection needs and the system has excess capacity. The system was funded through EPA/FDEP 319 grants and state appropriations.



- **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. The improvements are as identified in the updated POR April 2008 and are nearly all completed for final compliance. 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 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.

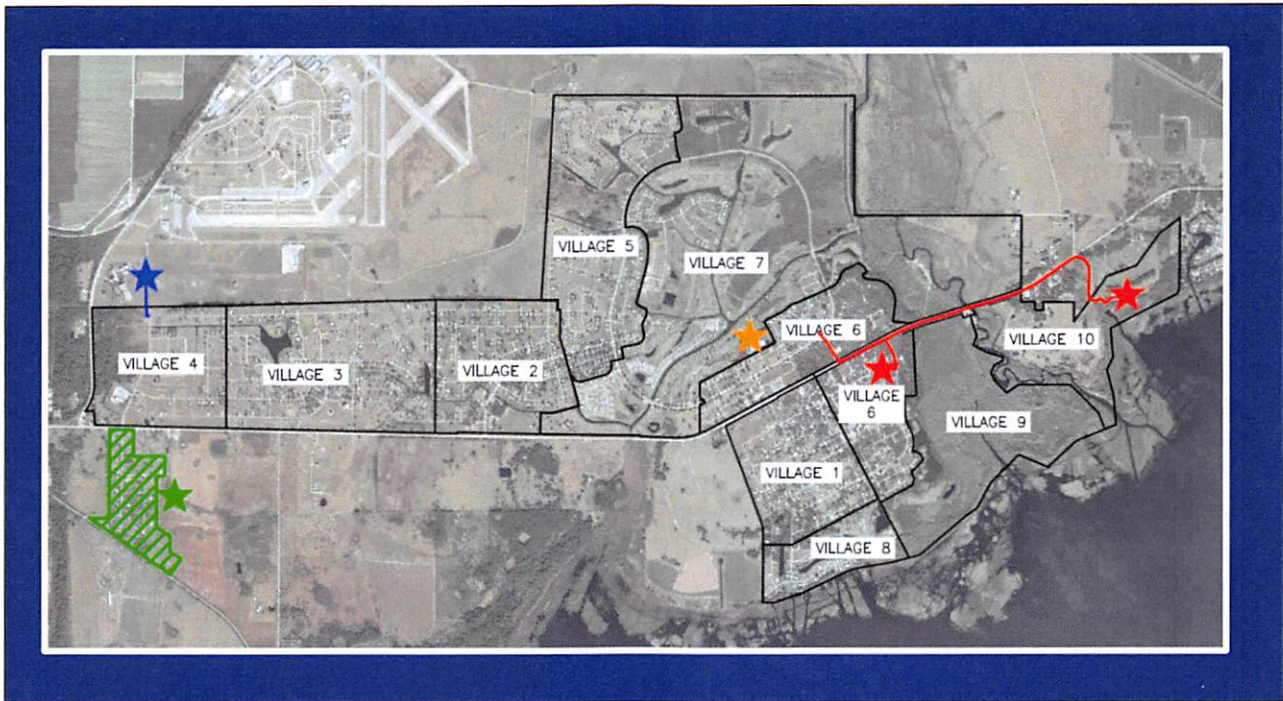
- **Potable Water System Improvements**

SLID water utilities is in need of 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, 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 submitted a request for inclusion to the State Revolving Fund Program to fund these water improvements. We submitted a preliminary engineering report outlining the scope of four projects needed to improvement 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
- WTP #2 renovation and commissioning of water plant
- US98 south watermain loop and eastern extension
- Pinedale Estates water distribution service

This request for inclusion was received and the District was granted a planning and design loan agreement #DW280530 approved on 8/14/19 and signed on 8/14/19. This loan is for planning and design only and the work is ahead of schedule and on track.



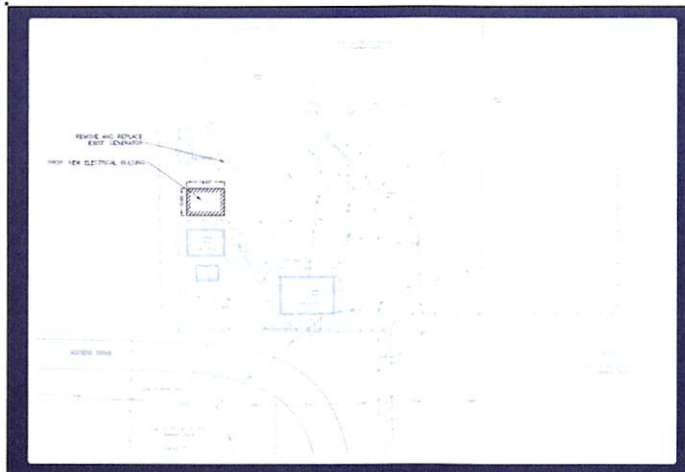
- ★ WTP # 1 Improvements
- ★ WTP # 2 Improvements
- ★ Pinedale Estates WM Extension
- ★ Water Main Loop to South Side US98 East of Arbuckle Creek

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 projected project cost for the proposed SLID WTP-1 improvements is estimated at \$839,270.00.



WTP # 1 Site Plan Improvements

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).

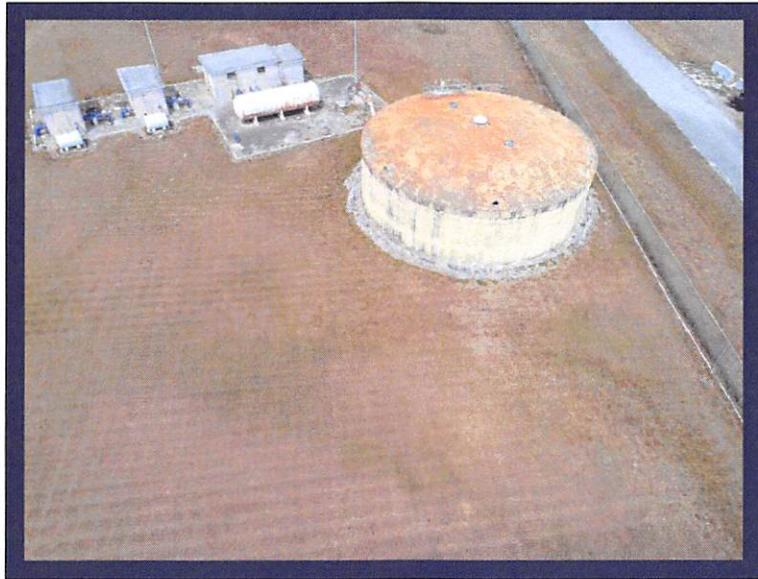
SLID plans to upgrade and expand the facility by installing a new high service triplex pump station and new structure to serve as a field office and electrical controls building including a separate room for the chemical storage of the hyperchlorination facility to treat the potable water. The site's 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 10-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 three (3) new high service pumps that will be installed adjacent to the existing above ground storage tank. Each pump will be rated at 500-gpm at 130-ft TDH with variable frequency drives (VFD's). The proposed electrical controls will be installed inside a proposed precast concrete building measuring approximately 12-ft wide by 30-ft long. 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 well pump is in disrepair and will be replaced with 60 HP submersible pumps and have all the discharge piping (fittings, valves, etc.) reworked and brought up to standard.

The plant will require a 200-kw emergency generator to back up the proposed three (3) 30 HP high service pumps, 60 HP potable water well, electrical chemical building, and all other miscellaneous electrical mechanical components.

The project will include the construction of a 10-ft wide asphalt road that will extend from the intersection of Castile Road and Madrid Drive north approximately 275 feet to the existing asphalt surface on Madrid Drive. The district has obtained a utility easement for this proposed route in order to access the property with the proposed potable WM. A security fence will be installed to secure the entire WTP#2 site.

The projected project cost for the proposed SLID WTP-2 improvements is estimated at \$2,116,820.00.

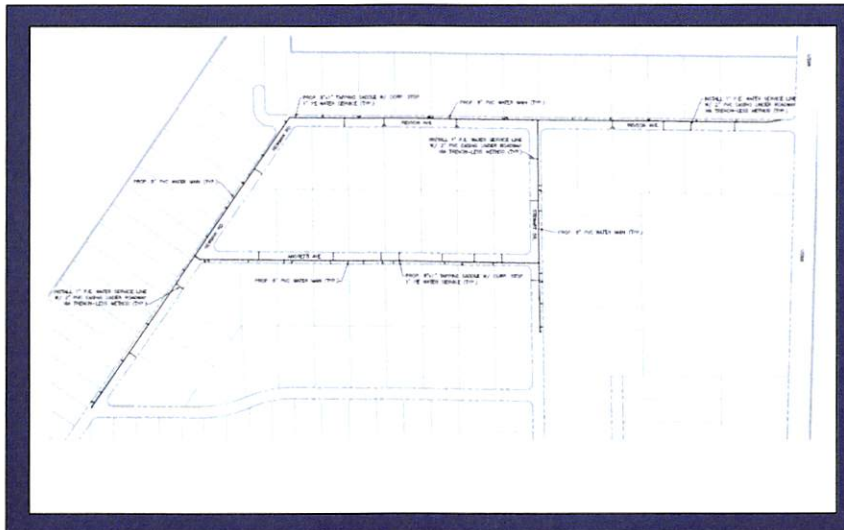


3. Pinedale Estates Watermain

The purpose of this project is to install approximately \pm 6,200-LF of 8-inch 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.

Pinedale Estates Water Distribution Plan



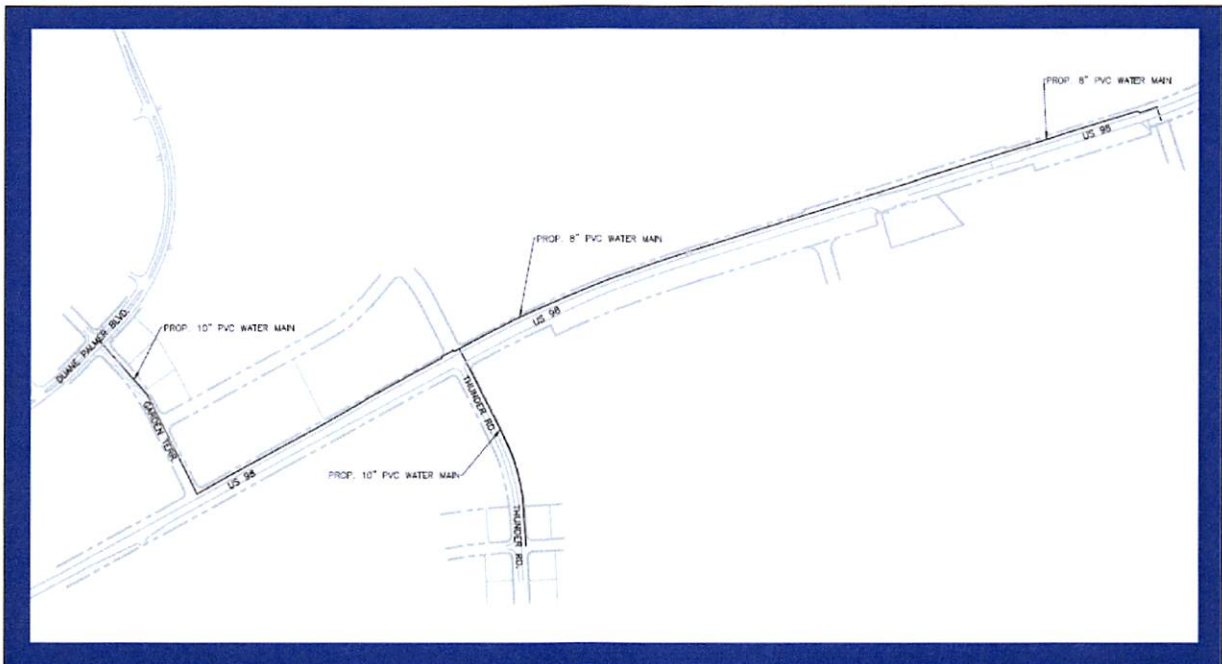
4. US-98 WM Expansion and Loop

The scope of work for these proposed improvements includes a 10-inch 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 projected project cost for the proposed Us-98 WM expansion and loop improvements is estimated at \$600,808.00.



- **Wastewater Treatment Plant**

SLID purchased an existing wastewater treatment plant including the collection system from the existing Spring Lake golf course within the SLID boundaries. The system was acquired by SLID to benefit the customers of the system and to ensure reliable service and environmental safety with respect to district surface waters. The existing wastewater treatment plant had a capacity of 104,000 gpd with average daily flows reaching 35,000 gpd during peak months. The existing plant was in disrepair, oversized to allow for spray irrigation and operating under an FDEP Administrative Order #A0-070-SD. It currently serves 317 units consisting of the existing golf course villas within SLID.

It was in the best interest of both SLID and the existing customers for SLID to own the wastewater treatment plant and sewer system for financial, environmental and health reasons. This also allows for SLID to control their future destiny. Due to the existing wastewater treatment plant's close proximity to SLID's storm water canal system and potential intermingling of wastewater effluent with SLID's surface waters as a result of improperly treated effluent for spray irrigation practices by the previous utility owner, SLID realizes through ownership of the system it has greater control of environmental and surface water quality within the District including control of charges to the customers of the system. This helps to minimize excessive discharges from private "for profit" owners. SLID now has the ability to provide both water and sewer service which will help to enhance commercial growth along the US 98 corridor and other higher density parcels. Through ownership of the wastewater treatment plant, SLID is in control of the District's growth and destiny.

The District received an SRF loan to construct a new 80,000 GPD tertiary activated sludge wastewater treatment plant located on US 98 near the east end of the District. The new plant consists of two (2) 40,000 GPD treatment trains allowing for a more efficient operation of the wastewater treatment plant due to the wide fluctuation of flows to the plant throughout the year. The project also included a new lift station and over 9,500 linear feet of new force main.

The plant construction was completed in July 2019 by Excavation Point. The plant was successfully commissioned by FDEP for full service and operation on October 2019.

The entire project includes the following:

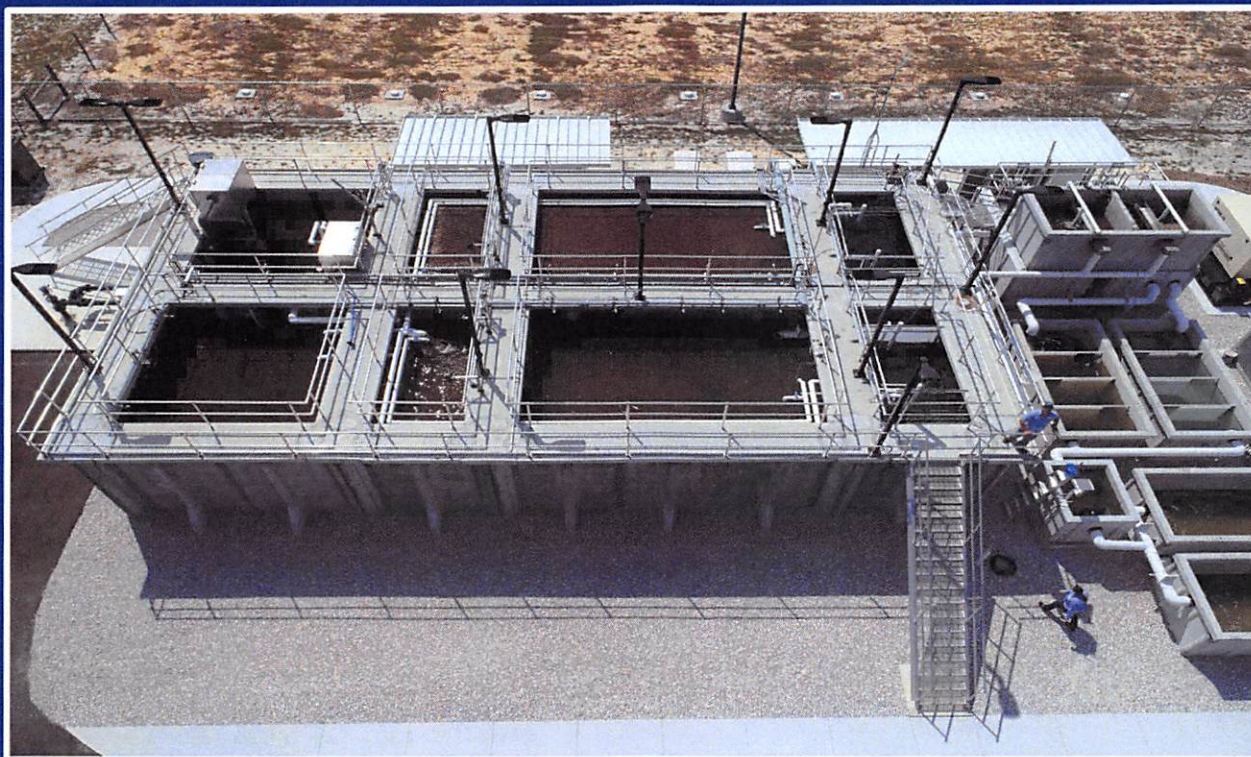
- 5,612 LF of 10" force main along US 98
- 3,893 LF of 8" force main
- 5 each directional bores (10" & 8")
- Construction of duplex submersible lift station
- Demolition of existing lift station
- 10" gravity sewer to the club house
- Modification of existing WWTP by-pass piping to new plant
- Clearing and grubbing of WWTP site
- 80,000 GPD (two 40,000 GPD) tertiary WWTP expandable to 120,000 gpd
- Dual absorption bed effluent disposal systems up to 120,000 gpd
- Chemical building and feed system
- Water service to WWTP
- US 98 entrance road

- WWTP road work and parking lot
- WWTP electrical components and controls
- Back-up generator

The final construction cost of the proposed new wastewater facilities is 3,022,410.00 by Excavation Point, Inc. which is \$92,270.00 lower than the actual bid price of \$3,156,199.00.

The District operates a utility fund, and pledged revenues for operations and debt payments are from these monthly charges. The SRF loan will be repaid in installments, and as new customers are connected to the system, rates will be readjusted.





- **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. 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, ditch plugs, standards, etc.

- **Signature H. Progress**

The golf course was purchased by Signature H Property Group who continues to plan golf course upgrades and construct improvements including future club house improvements. The group is in the process of planning a "Downtown" city center type of development across from the club house. The group is diligently working on the Village Center and Bobcat Cottages with construction soon.

- **Utility Rate Study**

SLID engaged Florida Rural Water Association (FRWA) to perform a detailed utility rate study for water and sewer. FRWA worked with district staff and CAS staff to collect all pertinent data, exhibits, inventory, operating cost data and utility operations to develop the study. The study was presented to the District and was used as a guide to develop new rates and fees charges for the District. The proposed rate schedules were approved by the BOS. These rates will be reviewed periodically for sufficiency.

- **SLID FY2020-2021**

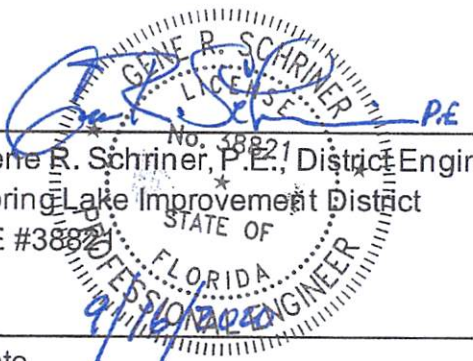
We have reviewed the preliminary budget information as provided for FY 2021 with the District Manager and have no objection, additions, deletions or comments. SLID has sufficient funds budgeting to adequately maintain and operate the "Works of the District" for FY 2021.

- **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 staffing of the District is sufficient to maintain and operate the "Works of the District". The Manager, Director of Operations, District Administrator and Field Superintendents are very knowledgeable of SLID's systems and the district has adequate and competent staff, and has retained best available and up-to-date operational tools, instruments and equipment to operate. 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

- 5-year update of WCP and conceptual permit
- Develop Master Utility Plan
- Continue infrastructure expansion
- Grow SLID through private investors, Coordinate with existing developers committed to SLID
- Continue golf course expansion of canals and water bodies
- Continue to market the US98 corridor
- Planning for future WWTP needs
- Develop strategy for Sebring Airport to help pay operational costs



Gene R. Schriener, P.E., District Engineer
Spring Lake Improvement District
PE #38821

Date

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