AGENDA

Key Colony Beach Utility Board

Tuesday, November 17, 2026 – 10:00 AM

Temporary Meeting Place for the City of Key Colony Beach

The Key Colony Inn – Back Patio, 700 W. Ocean Drive, Key Colony Beach & via Zoom Conferencing

Zoom login information at the end of this agenda

1. **Call to Order, Pledge of Allegiance, Prayer, & Rollcall**

2. **Approval of Agenda** *(Additions, changes, and deletions can be made via one motion and a second to approve by majority vote)*

3. **Citizen Comments and Correspondence**

4. **Approval of Minutes:** 10-20-2026 Utility Board Meeting Minutes **- Pgs. 1-3**

5. **Review of Sludge Hauling for October - Pg. 4**

6. **Items for Discussion & Recommendation of Approval**
   a. Discussion/Approval to award ITB 2026-03 Wastewater Treatment Plant Tanks and Piping Coating, per the Recommendation of the Bid Evaluation Committee **– Pgs. 5-6**
   b. Discussion/Review of a Draft of a Dewatering Study for the City of Key Colony Beach **– Pgs. 7-94**
   c. Discussion/Approval of the Appointment of Terry Taylor to the Utility Board as an Alternate Member **– Pgs. 95-98**

7. **City Hall Staff Report – Pg. 99**

8. **Sewer and Stormwater Grant Update**

9. **Operator's Monthly Report - September**
   a. US Water **– Pgs. 100 -101**
   b. City Operator **– Pgs. 102-111**

10. **Treasurer's Report**
    a. **October 2026 Wastewater Financial Reports**
       1. Balance Sheet **– Pgs. 112-113**
       2. Income Statement **– Pgs. 114-116**
       3. Discussion/Approval of Wastewater Warrant No. 1026 for $118,978.55 **– Pg. 117**

    b. **October 2026 Stormwater Financial Reports**
       1. Balance Sheet **– Pg. 118**
       2. Income Statement **– Pg. 119**
       3. Discussion/Approval of Stormwater Warrant No. 1026 for $19,232.95 **– Pg. 120**

11. **Any Other Business**
12. **Next Meeting:** December 15, 2026 - 10:00 AM – The Key Colony Inn
13. **Adjournment**

Persons who need accommodations to attend or participate in this meeting should contact the City Clerk at 305-289-1212 at least 48 hours before the meeting to request such assistance.

NOTICE: *One or more members of the City Commission may be present at this meeting. The presence of Commissioners does not constitute a City Commission meeting, and no official action by the City Commission will be taken.*

This meeting will be held at the City of Key Colony Beach temporary meeting place, at The Key Colony Inn, Back Patio, 700 W. Ocean Drive, Key Colony Beach, and via Zoom.

Join from PC, Mac, iPad, or Android:
https://us02web.zoom.us/j/83017351527?pwd=qQFumFikmBwEAcGf9bgHKr3Nb1nbqN.1
Passcode:747720

Phone one-tap:
+13052241968,,83017351527#,,,,*747720# US
+16469313860,,83017351527#,,,,*747720# US

Join via audio:
+1 305 224 1968 US
+1 646 931 3860 US
+1 929 205 6099 US (New York)
+1 301 715 8592 US (Washington DC)
+1 309 205 3325 US
+1 312 626 6799 US (Chicago)
+1 253 205 0468 US
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
+1 360 209 5623 US
+1 386 347 5053 US
+1 507 473 4847 US
+1 564 217 2000 US
+1 669 444 9171 US
+1 669 900 6833 US (San Jose)
+1 689 278 1000 US
+1 719 359 4580 US
Webinar ID: 830 1735 1527
Passcode: 747720
International numbers available: https://us02web.zoom.us/u/kbnbQipfWc

Persons who need accommodations to attend or participate in this meeting should contact the City Clerk at 305-289-1212 at least 48 hours before the meeting to request such assistance.

NOTICE: *One or more members of the City Commission may be present at this meeting. The presence of Commissioners does not constitute a City Commission meeting, and no official action by the City Commission will be taken.*

MINUTES

Key Colony Beach Utility Board

Tuesday, October 20th, 2026 – 10:00 AM
Temporary Meeting Place for the City of Key Colony Beach
The Key Colony Inn – Back Patio, 700 W. Ocean Drive, Key Colony Beach & via Zoom Conferencing

1. **Call to Order, Pledge of Allegiance, Prayer, & Rollcall:** The Key Colony Beach Utility Board meeting was called to order by Chair Fred Swanson at 10:00 AM, followed by the Pledge of Allegiance, Prayer, and Rollcall. **Present**: Vice-Chair Ed Carey, Gil Gilbertson, Chair Fred Swanson, Joe Schmidt (via Zoom), Liz Kohout-Stephens. **Also present:** City Administrator John Bartus, City Clerk Silvia Roussin, Administrative Assistant Par Darnall, US Water Operator Shane Ellis, City Plant Operator Danny Price, Commissioner Tom Harding.

2. **Approval of Agenda** *(Additions, changes, and deletions can be made via one motion and a second to approve by majority vote)*

   There were no changes to the agenda, and Chair Swanson asked for a motion to approve.

   MOTION: Motion made by Vice-Chair Carey to approve. Liz Kohout Stephens seconded the motion.
   DISCUSSION: None.
   ON THE MOTION: Rollcall vote. Unanimous approval.

3. **Citizen Comments and Correspondence:** None.

4. **Approval of Minutes:** 09-15-2026 Utility Board Meeting Minutes

   There were no changes to the minutes, and Chair Swanson asked for a motion to approve.

   MOTION: Motion made by Gil Gilbertson to approve. Liz Kohout Stephenson seconded the motion.
   DISCUSSION: None.
   ON THE MOTION: Rollcall vote. Unanimous approval.

5. **Review of Sludge Hauling for August**

6. **Items for Discussion & Recommendation of Approval**
   a. Discussion and review of bids received for ITB 2026-04 for cleaning and camera inspection of the City's sewer lines, and a recommendation to the City Commission
      1. ITB 2026-04
      2. Proof of Publication
      3. Recommendation by the City Administrator

   Chair Swanson introduced the agenda item and recommended approval of the City Administrator's recommendation.

   MOTION: Chair Swanson moved to approve the recommendation. Liz Kohout Stephens seconded the motion.
   DISCUSSION: Gil Gilbertson and City Administrator John Bartus discussed the bidder's qualifications, references, bid completeness, price, responsiveness, and responsibility. Chair Swanson commented on system leakage and the funds spent on recurring inspections. City Administrator Bartus explained that the City would need to evaluate the identified repairs. The Board also discussed a broader overhaul of the sewer system, repairs to the sewer lines, and pollution entering the surrounding waters. Gil Gilbertson urged the City to prioritize underlying system repairs, noting that the sewer plant was not functioning properly. There was no further discussion, and Chair

Swanson called for roll. City Clerk Roussin restated that the motion was to accept the City Administrator's recommendation and award the project to Enviro Waste.
ON THE MOTION: Rollcall vote. The motion passed unanimously.

City Clerk Roussin stated that the City Commission would receive the recommendation on October 22nd.

b. Discussion and approval of Veolia's proposal to purchase membranes for $118,760.00

Chair Swanson introduced the agenda item and asked for a motion to approve.

MOTION: Vice-Chair Carey moved to approve the proposal. Gil Gilbertson seconded the motion.
DISCUSSION: The Board discussed the single-source procurement, potential delivery delays, and the prompt delivery of the previous order.
ON THE MOTION: Rollcall vote. The motion passed unanimously.

City Clerk Roussin stated that the City Commission would receive the recommendation on October 22nd.

c. Discussion and approval of Material Handling Systems' $34,227.00 proposal for crane repairs

Chair Swanson introduced the agenda item and asked Plant Operator Danny Price to elaborate. Danny Price explained the necessary crane repairs and stated that only one quote had been received despite contacting several vendors.

MOTION: Vice-Chair Carey moved to approve the proposal. Gil Gilbertson seconded the motion.
FURTHER DISCUSSION: None.
ON THE MOTION: Rollcall vote. Unanimous approval.

City Clerk Roussin stated that the City Commission would receive the recommendation on October 22nd, 2026.

d. Discussion and approval of purchases for new laboratory equipment
   1. Myron Temperature Meter for $1,130.77
   2. USA Bluebook Lab Equipment for $5,559.36

Chair Swanson introduced the agenda item and asked Plant Operator Danny Price to elaborate. Danny Price explained that the purchases were needed to replace equipment owned by US Water.

MOTION: Gil Gilbertson moved to approve the purchases. Liz Kohout Stephens seconded the motion.
FURTHER DISCUSSION: None.
ON THE MOTION: Roll-call vote. The motion passed unanimously.

e. Review by Commissioner Harding on a Request for Input Flow Meter and Miscellaneous New Requests.

Commissioner Harding discussed the need for an influent flow meter, its operational benefits, and its role in the City's corrective-action response to the State. Commissioner Harding noted that the meter was included in the budget, strongly recommended by the engineer, and estimated to cost about $15,000. The Board reached consensus to request specifications from CPH, and Commissioner Harding further explained the monitoring process.

7. **City Hall Staff Report** – City Clerk Roussin reported that the State was reviewing the requested Collection System Action Plan and would assess potential fines. Commissioner Harding explained that the process could take two to three months and that the State would place the City on a monitoring program. Gil Gilbertson asked whether the City could obtain no-cost consulting assistance from a university or graduate student. Commissioner Harding supported the suggestion, referenced a similar study completed about 15 to 20 years ago as a summer project,

and said to reach out to Jason about the possibility.

8. **Sewer and Stormwater Grant Update** – City Administrator Bartus reported that the CDBG application was not awarded and recognized Commissioner Harding and City Clerk Roussin for their efforts. He stated that he had met with the local working group and was coordinating with the U.S. Army Corps of Engineers. He also discussed ongoing efforts to identify projects for fiscal year 2028, noting that funding may become available incrementally over the next decade and will depend on legislative action, congressional relationships, and continued coordination with the City's lobbyist. Gil Gilbertson asked whether the City needed a defined concept or project. Commissioner Harding emphasized the importance of developing shovel-ready projects to compete with other municipalities. The Board discussed the expenditures needed to prepare such projects, and Gil Gilbertson further commented on recent expenditures and future needs.

9. **Operator's Monthly Report - September**
   a. US Water – Shane Ellis reported that the month had been challenging.

   b. City Operator – The Board expressed appreciation for the report. Commissioner Harding noted that nitrogen levels had decreased and explained that, to meet the year-end target, levels would need to remain low for the rest of the year. Commissioner Harding also described the treatment process and explained that the first large blower aerates the tank.

10. **Treasurer's Report**
    a. **September 2026 Wastewater Financial Reports**
       1. Balance Sheet
       2. Income Statement
       3. Discussion/Approval of Wastewater Warrant No. 0926 for $487,947.71

    b. **September 2026 Stormwater Financial Reports**
       1. Balance Sheet
       2. Income Statement
       3. Discussion/Approval of Stormwater Warrant No. 0926 for $38,844.38

    Chair Swanson introduced the agenda item and asked for a motion to approve both warrants.

    MOTION: Motion made by Chair Swanson to approve. Vice-Chair Carey seconded the motion.
    DISCUSSION: None.
    ON THE MOTION: Rollcall vote. Unanimous approval.

11. **Any Other Business:** None.

12. **Next Meeting: November 17, 2026, 10:00 AM – The Key Colony Inn:** Joe Schmidt noted poor connections for Zoom attendees, a point echoed by Zoom attendee Laurie Swanson.

13. **Adjournment:** The meeting adjourned at 10:42 AM.

Respectfully submitted,

Silvia Roussin
City Clerk

DRAFT

	Date	Contractor	Invoice #	Description	Trucks/Loads	Gallons Pumped	Cost
Week 1							
Total Week 1					0	-	$ -
Week 2							
	10/6/2026	Haack Environmental LLC	863	7th St Lift Station pump-out 5 hrs by $450/hr			$ 2,250.00
Total Week2					0	-	$ 2,250.00
Week 3							
Total Week 3					0	-	$ -
Week 4							
	10/24/2026	Haack Environmental LLC	934	Sludge hauling	4	18,500	$ 13,875.00
			934	2.62% solids = 30% price increase			$ 4,162.50
Total Week 4					4	18,500	$ 18,037.50
Week 5							
	10/28/2026	Haack Environmental LLC	949	Sludge hauling	3	12,750	$ 9,562.50
			949	2.62% solids = 30% price increase			$ 2,868.75
	10/29/2026	Haack Environmental LLC	957	Emergency pump out 7th & Sadowski lift stations	3		$ 4,500.00
Total Week 5					6	12,750	$ 16,931.25
Total October					**10**	**31,250**	**$ 37,218.75**

MINUTES

City of Key Colony Beach
ITB 2026-03 Wastewater Treatment Plant Tanks and Piping Coating
Evaluation Committee Meeting
Monday, November 9th, 2026, 10:00 AM
At the temporary meeting place for the City of Key Colony Beach at
The Key Colony Inn, Back Patio, 700 W. Ocean Drive, Key Colony Beach, Florida 33051

1. **CALL TO ORDER, PLEDGE OF ALLEGIANCE, and ROLL CALL:** The Key Colony Beach Wastewater Treatment Plant Tanks and Piping Coating Evaluation Committee Meeting was called to order at 10:00 AM, followed by the Pledge of Allegiance and Rollcall. **Present**: Commissioner Tom Harding, Utility Board Chair Fred Swanson, Building Assistant Samantha Rodamer. **Absent:** Danny Price. **Also present:** City Administrator John Bartus, City Clerk Silvia Roussin.

   Public Attendance: 1

2. **CITIZEN COMMENTS & CORRESPONDENCE:** None.

3. **ITB 2026-03 Tanks and Piping Coating**
   a. ITB 2026-03
   b. Bid Tabulations
   c. Recommendation to Award

   The Committee reviewed the bids submitted for the Wastewater Treatment Plant Tank and Piping Coating Project, which includes cleaning and painting four tanks: two steel and two concrete.

   The Committee discussed the project scope, proposed cleaning methods, and coating specifications, including whether certain connecting pipes were included in the project.

   The Committee reviewed bid documentation, contractor qualifications, licensing, insurance requirements, and references, focusing primarily on the two lowest bidders, Mammoth Industrial LLC and Clean Infusion.

   Commissioner Harding reported that references contacted for Mammoth Industrial LLC provided positive feedback on the quality and timeliness of previous projects. Attempts to contact references for Clean Infusion were unsuccessful.

   Samantha Rodamer discussed contractor licensing requirements, and City Clerk Roussin confirmed that proof of insurance could be submitted with the contract documents. Commissioner Harding stated that he had no apparent concerns about the bid submitted by Mammoth Industrial LLC, provided that Florida licensing and insurance requirements were met. There was no further discussion, and Commissioner Harding asked for a motion.

   MOTION: Fred Swanson moved to award the bid to Mammoth Industrial LLC. Samantha Rodamer seconded the motion.
   DISCUSSION: None.
   ON THE MOTION: Rollcall vote. Unanimous approval.

4. **RECOMMENDATION TO AWARD:** Utility Board Meeting 11-17-2026 10:00 AM
City Commission Meeting 11-19-2026 10:0 AM

5. **ADJOURNMENT:** The meeting adjourned at 10:12 AM.

Respectfully submitted,

Silvia Roussin

City Clerk

CITY OF KEY COLONY BEACH, FLORIDA

DEWATERING STUDY

Key Colony Beach Water Reclamation Facility

Prepared for: City of Key Colony Beach

Prepared by: CPH Consulting, LLC

Orange Park, Florida

Project No.: M060408

Client No.: 0604-08-1

Date: October 2026

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Appendix A – Executed Sludge Hauling Agreement
Appendix B – WRF Operating Permit
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Appendix D – Screw Press Conceptual Drawings

I. EXECUTIVE SUMMARY

CPH Consulting, LLC conducted a sludge management alternatives evaluation for the City of Key Colony Beach's (City) Water Reclamation Facility (WRF), which has a permitted capacity of 0.340 million gallons per day (MGD). The City currently relies on off-site hauling and disposal of liquid sludge, with recorded routine pump-out volumes increasing from 617,000 gallons in 2024 to 828,000 gallons in 2025, at corresponding costs of $151,474 and $240,838, respectively. From January through July 2026, approximately 383,500 gallons of liquid sludge were removed through routine hauling operations, with an additional 170,600 gallons associated with emergency and other non-routine services. Based on the annualized 2026 routine hauling volume of approximately 657,400 gallons and the current contractual rate of $0.75 per gallon, the projected annual cost of continued liquid sludge hauling and disposal is approximately $493,000, excluding emergency and other non-routine services.

Using standard biological process calculations, the estimated sludge production from the WRF on an average loading basis of 0.220 MGD with an influent biochemical oxygen demand (BOD) of 225 milligrams per liter (mg/L) is estimated at a range between: 463,000 gallons per year (gpy) @ 2.0% solids; 617,100 gpy @ 1.5% solids; and 925,700 gallons per year @ 1.0% solids. Most liquid sludge hauling occurs between 1.5 to 2.0% solids. The City's WRF also has an anaerobic basin as part of the Integrated Surge Anoxic Mixing (ISAM) system that is intended to support solids reduction, which is not included in the estimated wasting volumes.

Five sludge management methods are discussed in the report, including:

1. Liquid Sludge Hauling and Disposal through Haack Environmental, LLC.
2. Previous dewatering methods including Drying Beds and Dewatering Box.
3. Contracted Mobile Centrifuge Dewatering.
4. Belt Filter Press Dewatering.
5. Screw Press Dewatering.

The previously utilized Drying Beds and Dewatering Box as well as the Contracted Mobile Centrifuge Dewatering alternatives were not advanced for detailed evaluation due to operational and infrastructure limitations. The remaining three alternatives were evaluated based on technical feasibility, capital investment,

annual operation and maintenance (O&M) costs, and long-term economic performance. The Belt Filter Press and Screw Press alternatives were evaluated at a design sludge feed rate of 35 gallons per minute (gpm), assuming a feed solids concentration of 2.0% and an operating schedule of six hours per day, three days per week.

A significant capital expenditure component associated with the proposed equipment includes housing considerations to extend the system's longevity. Many locations in Florida place these components under a canopy, but belt-filter systems are generally recommended in a building. For cost comparison purposes, both alternatives include utilization of a concrete masonry unit (CMU) building with a foundation elevation above flood elevations supported by piles.

The estimated capital costs are $3,174,000 for the Belt Filter Press and $2,989,000 for the Screw Press, with corresponding annual O&M costs of $97,800 and $94,600, respectively, including sludge cake hauling and disposal at an assumed cost of $300 per wet ton. Continued liquid sludge hauling and disposal does not require additional capital investment but has an estimated annual cost of $347,300 based on standard biological calculation kinetics. A 20-year net present value (NPV) analysis using a 4% annual real discount rate resulted in total present worth costs of approximately $4.70 million for continued liquid sludge hauling and disposal, $4.50 million for the Belt Filter Press, and $4.30 million for the Screw Press.

For every 0.1 MGD increase in wastewater flow above the 0.220 MGD baseline, the 20-year NPV savings increase by approximately $1.71 million for the Screw Press and $1.69 million for the Belt Filter Press compared to continued liquid sludge hauling.

Based on the preliminary technical and economic evaluation, the Screw Press is recommended as the preferred sludge dewatering alternative. The Screw Press offers the lowest estimated capital and annual operating costs, along with operational advantages such as reduced wash water requirements and lower maintenance needs. On a present-worth basis, the sludge hauling and disposal cost reduction with either alternative represents an estimated savings of $249,500 per year or $3.40 million dollars at the 20-year planning period. Should the City obtain grant funding for the capital needs, then the analysis further highlights and boosts the present-worth delta.

Separately, we recommend the City focus on the following near-term WRF operational activities to confirm baseline sludge handling needs:

1. Track wasting rates from the MBR to the ISAM Anaerobic Tank for the coming 12 months. Seasonal wasting requirements should also be a focus.

2. Track sludge levels in the ISAM Anaerobic Tank and associated wasting from the ISAM to the Aerobic Digester. As noted herein, the manufacturer recommends maintaining a 4.5 to 6.0 foot level of solids in the anaerobic tank.

3. Track decant rates from the Aerobic Digester to the WRF in-plant pump station.

4. Sample hauled sludge to determine actual total solids percentage. A 2.0% result should be the operational target pending current contract sludge hauling and disposal restrictions.

5. The ISAM system is approaching 9 to 10 years of service. Grit volumes in the ISAM Anaerobic Tank should be analyzed to determine current levels. The City should budget tank draining, grit removal, and tank inspection in the coming year or two. Elevated grit levels could impact efficacy of the ISAM Anaerobic Tank system.

II. INTRODUCTION

The City has historically managed biosolids through several treatment and disposal methods. The original system consisted of aerobic digestion followed by sludge drying beds, which relied on gravity drainage and evaporation to reduce sludge moisture content. The facility originally operated three drying beds that produced a sludge cake having an estimated solids concentration ranging from 20% to 40%. However, this approach was labor-intensive, weather-dependent, and subject to potential odor and vector attraction (e.g., materials that attract rodents, flies, birds, and other living organisms capable of transporting infectious pathogens) concerns.

In 2016, the City purchased a FloTrends sludge dewatering box consisting of a polymer feed system and a modified 30-cubic-yard roll-off container equipped with filtration media. The system achieved dewatering biosolids with approximately 8% to 12% solids concentration. Following the 2018 Water Reclamation Facility (WRF) improvements and the incorporation of anaerobic sludge treatment, the dewatering box became less effective, resulting in lower solids concentrations and difficulties with hauling and disposal. The system was subsequently decommissioned.

Since decommissioning the sludge dewatering box, the City has relied on off-site hauling of liquid sludge for disposal. This approach requires the transportation of substantial liquid volumes and is dependent on contracted hauling and disposal services.

The purpose of this evaluation is to assess the City's existing biosolids management practices, including its current sludge hauling and disposal arrangement with Haack Environmental, LLC, and evaluate sludge dewatering alternatives that could reduce off-site hauling volumes and associated disposal costs.

III. EXISTING CONDITIONS

A. Wastewater Treatment Facility Overview

The City operates a municipally owned Type II domestic WRF, identified as Facility ID FLA014720, located at 600 Eighth Street in Key Colony Beach, Monroe County, Florida. The facility began operation in 1969 and utilizes an activated sludge treatment process incorporating membrane bioreactor (MBR) technology. The

WRF has a permitted treatment capacity of 0.340 MGD on an annual average daily flow (AADF) basis.

The facility has undergone several improvements, including installation of the GE LEAPmbr membrane system and implementation of the Integrated Surge Anoxic Mix (ISAM) system around January 2019, which improved total nitrogen and total phosphorus removal.

Treated effluent is managed through a reclaimed water reuse system with a design capacity of 0.099 MGD, serving the City's golf course and landscaped areas, and six underground injection wells with a combined design capacity of 0.340 MGD.

B. Existing Biosolids Treatment and Storage System

The existing biosolids treatment and handling system consists of the following major components:

- One MBR waste activated sludge (WAS) pump rated at 170 gallons per minute (gpm).
- One 95,000-gallon ISAM anaerobic treatment tank.
- Two ISAM WAS pumps rated at 250 gpm each.
- One 100,000-gallon aerobic digester.
- Two biosolids transfer pumps rated at 150 gpm each, which have not been in service and require confirmation of their operational capabilities.

The MBR system typically operates at mixed liquor suspended solids (MLSS) concentrations ranging from 6,000 to 8,000 mg/L (approximately 0.6% to 0.8% solids). The operator controls MLSS by wasting a calculated amount of sludge from the MBR to the ISAM anaerobic treatment tank for additional treatment and solids reduction. When the sludge level reaches the desired operating depth (4.5 to 6.0 feet), sludge is transferred to the aerobic digester for final aeration, mixing, storage, and disposal.

The aerobic digester also provides emergency overflow storage for the ISAM and MBR tanks. Under normal operating conditions, approximately 50% of the aerobic digester volume is reserved for potential overflow storage. The facility does not currently have a tracking system to identify when these overflows occur, but a

system is currently being installed with anticipated commissioning by the end of 2026.

Sludge thickening within the aerobic digester is accomplished through decanting. Mixing and aeration are temporarily discontinued to allow solids to settle, after which supernatant is removed and returned to the treatment process. Current decanting operations use a small submersible pump and temporary piping that discharges to the WRF's in-plant pump station. The resulting sludge solids concentration typically ranges from approximately 1% to 2%.

Exhibit 1 presents the existing WRF site plan and identifies the major biosolids management components, while **Exhibit 2** illustrates the treatment process flow diagram.

C. Biosolids Generation and Disposal

1. Estimated Biosolids Production

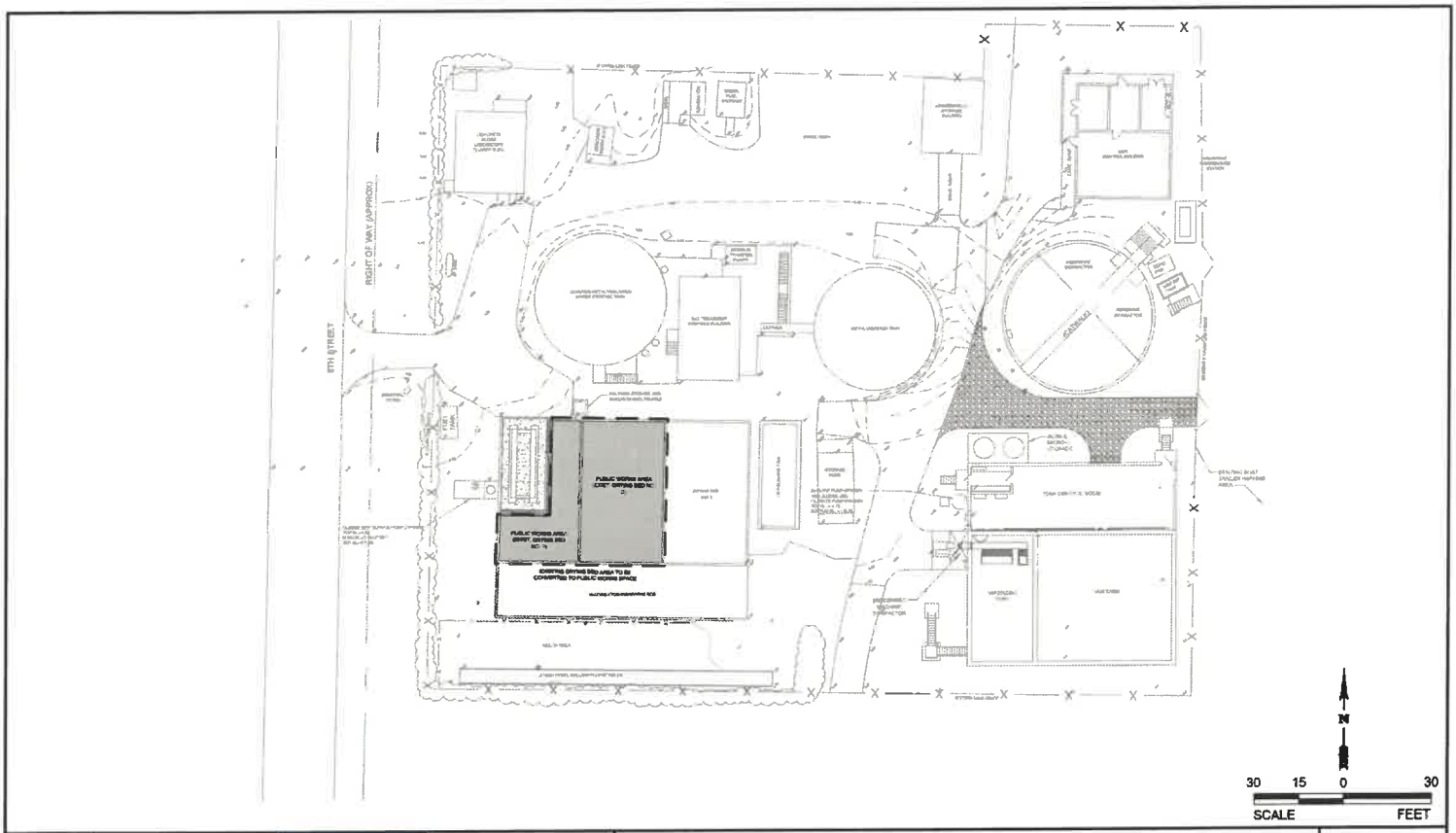
The previous design evaluation estimated an average biosolids production of approximately 215 pounds of dry solids per day (lb DS/day), equivalent to 39.2 dry tons per year. This estimate was based on an influent wastewater flow of 0.22 MGD, a BOD concentration of 225 mg/L, and an operating mixed liquor suspended solids (MLSS) concentration of 8,000 mg/L.

The 2023 permit renewal documentation reported an annual biosolids production of approximately 42.5 dry tons, about 8% higher than the previous design estimate. These values provide a basis for evaluating the facility's sludge disposal requirements, although they do not establish actual dry solids production during 2024–2026.

2. Estimated Liquid Sludge Disposal Volumes

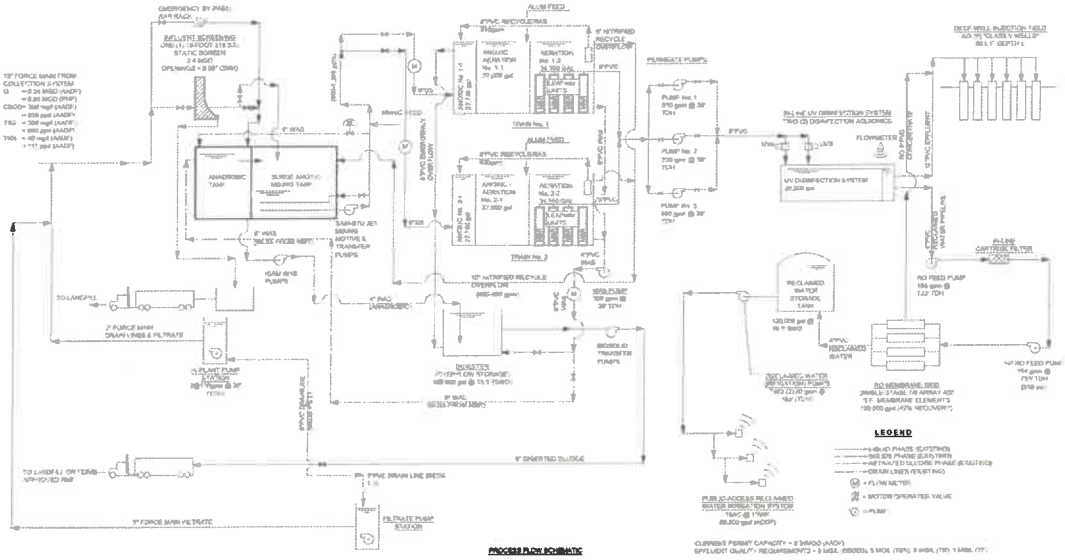
The City currently disposes of sludge in liquid form. For a given quantity of dry solids, the volume requiring transportation depends on the solids concentration achieved in the aerobic digester. Lower solids concentrations result in greater liquid sludge volumes because more water is transported with the solids.

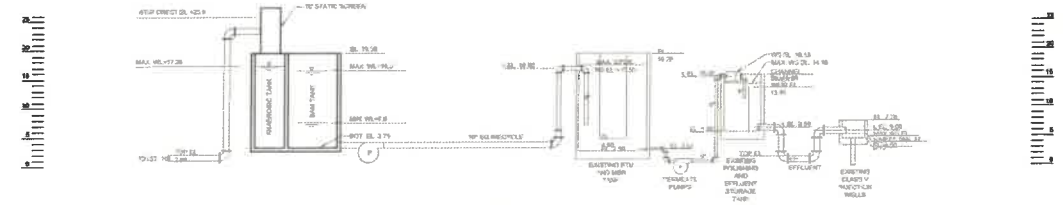
Based on the previous design evaluation, estimated monthly disposal volumes range from approximately 39,000 gallons at 2.0% total solids (TS) to 76,000 gallons at 1.0% TS, as presented in **Table III-1**.



Designed by:	JRS	Date: 10/2026	cph www.cphcorp.com	Building Stronger Communities Together 580-1 Wells Road Orange Park, FL 32073 Ph: 904.278.0030	WRF WATER RECLAMATION FACILITY DEWATERING STUDY City of Key Colony Beach, Florida
Drawn by:	SJL	Job No. M060408			
Checked by:	JRS				
Approved by:	JRS	© 2026			
Scale:	1" = 30'				

Exhibit
1





Designed by:	JRS	Date: 10/2026	cph www.cphcorp.com	Building Stronger Communities Together 580-1 Wells Road Orange Park, FL 32073 Ph: 904.278.0030	PROCESS FLOW SCHEMATIC & HYDRAULIC PROFILE DEWATERING STUDY City of Key Colony Beach, Florida
Drawn by:	SJL	Job No. M060408			
Checked by:	JRS	© 2026			
Approved by:	JRS				
Scale:	#########				

Exhibit 2

Table III-1 Estimated Monthly Sludge Disposal Volumes (0.22 MGD with 225 mg/l BOD)	
Total Solids Concentration	**Estimated Monthly Volume (gal)**
1.0%	76,000
1.5%	50,700
2.0%	39,000

These estimates represent annual average conditions. The previous evaluation anticipated higher hauling requirements between December and April and lower requirements between May and November due to seasonal variations in wastewater loading.

3. Historical Sludge Hauling Records and Disposal Costs

The City currently relies on off-site hauling and disposal of liquid digested sludge from the WRF's aerobic digester. Under the agreement with Haack Environmental, LLC, effective June 8, 2026, through June 7, 2027, non-emergency sludge hauling is provided on an as-needed basis at a rate of $0.75 per gallon for sludge containing up to 2.0% total solids (TS), equivalent to at least 98.0% water by weight. Emergency hauling is subject to an additional charge of $1,500 per truckload. The agreement requires disposal at an Florida Department of Environmental Protection (FDEP) authorized facility but does not identify a specific receiving location. A copy of the executed agreement is provided in **Appendix A.**

The City's sludge pump-out records for 2024, 2025, and January through July 2026 are summarized in **Table III-2**. No emergency pump-outs were specifically identified in the 2024 or 2025 records. The 2026 records distinguish between non-emergency pump-outs and emergency or other non-routine services. The latter include emergency sludge removal, lift station pump-outs, transfers to a municipal manhole, and detention pond cleanup. Some of these activities were not directly associated with sludge removal from the WRF's aerobic digester and are therefore reported separately.

Table III-2 2024 through 2026 Liquid Sludge Hauling Records					
Month	**2024 (gal)**	**2025 (gal)**	**2026 (gal)**	**2026 Emergency / Other (gal)**	**2026 Total (gal)**
January	81,000	76,500	85,500	0	85,500
February	76,500	36,000	4,500	0	4,500
March	40,500	72,000	87,750	32,750	120,500
April	81,000	81,000	37,000	32,931	69,931
May	58,500	49,500	98,750	0*	98,750
June	25,500	72,000	0	4,170	4,170
July	67,500	85,500	70,000	100,750	170,750
August	47,000	85,500	—	—	—
September	0	72,000	—	—	—
October	27,000	54,000	—	—	—
November	49,500	72,000	—	—	—
December	63,000	72,000	—	—	—
Total (gal)	**617,000**	**828,000**	**383,500**	**170,601**	**554,101**
Average (gal/month)	**51,417**	**69,000**	**54,786**	**24,372**	**79,157**

*May includes three emergency lift station services billed by hours, but no pumped volumes were reported for those services. The 2026 records cover January through July only.

Recorded pump-out volumes increased from 617,000 gallons in 2024 to 828,000 gallons in 2025, representing a 34% increase, with monthly averages of approximately 51,400 and 69,000 gallons, respectively. No emergency pump-outs were specifically identified in either year.

From January through July 2026, recorded volumes totaled 554,101 gallons, including 383,500 gallons of non-emergency pump-outs and 170,601 gallons of emergency or other non-routine services. The corresponding monthly averages were approximately 54,800 and 24,400 gallons, respectively. Some non-routine services involved lift stations, transfers to a municipal manhole, and detention pond cleanup rather than sludge hauling from the WRF.

Compared with the estimated disposal volumes in **Table III-1**, the 2024 and 2025 monthly averages were close to the estimates at 1.5% and 1.0% TS, respectively. The 2026 non-emergency average of approximately 54,800 gallons per month also falls within the estimated range.

In addition to the historical hauling volumes, the City's records provide information on associated sludge hauling and disposal expenditures. The recorded pump-out and related service costs for 2024, 2025, and January through July 2026 are summarized in **Table III-3**, distinguishing non-emergency from emergency and other non-routine services.

Table III-3
2024 through 2026 Pump-Out and Related Service Costs

Month	2024 ($)	2025 ($)	2026 ($)	2026 Emergency / Other ($)	2026 Total ($)
January	19,885	18,780	25,479	0	25,479
February	18,780	8,838	1,341	0	1,341
March	9,942	21,456	65,812	59,506	125,318
April	19,885	24,138	27,750	8,050	35,800
May	14,361	14,751	74,062	4,387	78,450
June	6,260	21,456	0	1,575	1,575
July	16,571	25,479	52,500	111,562	164,062
August	11,538	25,479	—	—	—
September	0	21,456	—	—	—
October	6,628	16,092	—	—	—
November	12,152	21,456	—	—	—
December	15,466	21,456	—	—	—
Total ($)	**151,473**	**240,838**	**246,945**	**185,081**	**432,026**
Average ($)	**12,623**	**20,070**	**35,278**		

As shown in **Table III-3**, average monthly routine pump-out costs increased from approximately $12,623 in 2024 to $20,070 in 2025, representing a 59% increase. Based on the available records for January through July 2026, the average monthly routine cost was approximately $35,278, or 76% higher than the 2025 average. The corresponding average recorded costs per gallon were $0.25, $0.29, and $0.64 for 2024, 2025, and 2026, respectively. In addition, the 2026 records included $185,081 in emergency and other non-routine service expenditures.

D. Existing Sludge Drying Beds

The facility previously operated three sludge drying beds as part of its original biosolids management system. The 2023 permit renewal documentation identified

two drying beds that were no longer in regular use and requested their removal from the operating permit to allow the area to be repurposed for public works activities.

Sludge Drying Bed 1 remains available for emergency use.

IV. REGULATORY SUMMARY

The City's WRF does not currently have the capability to treat biosolids to Class B or higher standards (i.e., Class A, AA). The City has historically relied on off-site hauling and disposal of liquid or dewatered sludge at authorized treatment or disposal facilities. Because Class B or higher stabilization is not available at the WRF, the City must continue to rely on appropriate off-site biosolids management options.

The FDEP biosolids management requirements are evolving toward more stringent treatment standards for land application and increased monitoring of emerging contaminants. Although the City does not currently land-apply its biosolids, these regulatory developments are summarized for the City's awareness and consideration in future biosolids management planning.

A. Current Regulatory Framework

The FDEP regulates municipal biosolids under Chapter 62-640, Florida Administrative Code (FAC). The requirements address pathogen reduction, vector attraction reduction, pollutant limits, monitoring, reporting, and land application controls. The most recent substantive revisions became effective on June 21, 2021.

The regulatory requirements applicable to the City's current biosolids management practices are summarized in Part II of the WRF Operating Permit. A copy of the permit is provided in **Appendix B**.

B. Protection of Groundwater and Surface Water

Biosolids land application requirements address nutrient loading, site conditions, groundwater separation, and water quality monitoring. The 2021 revisions placed greater emphasis on limiting phosphorus migration and preventing nutrient pollution through site-specific application and monitoring requirements.

Although these regulations do not directly affect the City's current biosolids management practices, they may affect third-party facilities contracted to provide subsequent sludge treatment and disposal services. Increasing regulatory restrictions could also influence future disposal costs.

C. Adopted Transition to Class AA Land Application

Legislative changes enacted in 2026 established July 1, 2028, as the general deadline for land application permits to comply with Class AA treatment requirements. Qualifying local governments that do not transport biosolids outside their county for land application have until July 1, 2031.

These deadlines have been established by statute, although the published administrative rules still reflect the previous regulatory framework. Additional information is provided in Section 403.0855, Florida Statutes.

D. PFAS Monitoring Requirements

Per- and polyfluoroalkyl substances (PFAS) are a large group of synthetic chemicals characterized by strong carbon-fluorine bonds and high environmental persistence.

Effective July 1, 2026, applicable public wastewater entities with a design average daily flow of at least 25,000 gallons per day are required to collect biosolids and treated effluent samples, as applicable, at least quarterly for PFAS analysis and submit the results to FDEP. The legislation limits the use of these monitoring results to informational purposes until applicable federal standards are established and adopted by FDEP. It does not establish numerical PFAS limits for biosolids disposal.

The City's current operating permit does not include these monitoring requirements; however, they are anticipated to be incorporated into the 2028 permit renewal.

A separate treatment system such as a granulated activated carbon, ion exchange, and/or reverse osmosis will be required to remove PFAS from the process stream. However, it will remain in the concentrate as well as the biosolids or sludge. It is anticipated landfill disposal will be acceptable through the present planning period, but the City should continue to monitor legislative (federal and state) activities. A site-specific treatment system will likely be cost-prohibitive.

The City should continue to monitor regulatory developments that may affect its biosolids management and disposal practices. In particular, the City should verify that its contracted biosolids treatment and disposal providers maintain valid operating permits and comply with applicable regulatory requirements.

V. DEWATERING OPTIONS

A. Drying Beds / Dewatering Box

Sludge drying beds are passive dewatering systems that remove water from liquid sludge through gravity drainage and evaporation. Liquid sludge is distributed over a filtration bed, typically consisting of sand and gravel layers with an underdrain system. Water drains through the filtration media, while additional moisture is removed through evaporation. The accumulated sludge solids are subsequently removed after sufficient drying.

A sludge dewatering box operates through gravity filtration within a contained system. Liquid sludge is introduced into a container equipped with filtration media that allows water to drain while retaining suspended solids. Polymer conditioning is used to improve solids separation. The collected filtrate is conveyed for further treatment, while the retained solids accumulate within the container for subsequent removal and disposal.

The City previously utilized a biosolids dewatering box to increase sludge solids concentration and reduce hauling costs. However, following the ISAM improvements and incorporation of anaerobic treatment, changes in polymer interactions with the biosolids reduced the effectiveness of the dewatering process. Consequently, the dewatering box was removed from the facility.

The facility previously operated three sludge drying beds that were subsequently discontinued from regular use. Sludge Drying Bed 1 remains available for emergency use.

Based on these previous operational considerations, rehabilitation or reuse of the former drying beds and dewatering boxes are not included in the proposed improvements.

B. Mobile Centrifuge Dewatering System

Mobile centrifuge dewatering is a mechanical sludge dewatering process that uses centrifugal force to separate suspended solids from liquid sludge. Sludge is

introduced into a high-speed rotating centrifuge, where differences in density between the solid and liquid phases facilitate solids separation. Polymer conditioning is typically applied to promote particle aggregation and improve dewatering efficiency. The process produces two streams: dewatered sludge cake and liquid centrate. The dewatered cake is collected for off-site transportation and beneficial reuse or disposal, while the centrate is returned to the wastewater treatment facility for further treatment.

For the City's WRF, the mobile centrifuge alternative is based on an estimated hydraulic processing capacity of 250 gallons per minute (gpm), with an anticipated operating period of one or two 10-hour shifts per dewatering event. The centrifuge and associated equipment would be temporarily positioned at the facility during dewatering operations. Sludge would be withdrawn from the existing aerobic digester and conveyed to the mobile centrifuge for processing. The resulting dewatered cake would be transported off-site, while the separated centrate would be returned to the treatment process.

The preliminary system requirements include a 480-volt, three-phase electrical supply rated at 250 amps or a 250-kW generator, a reclaimed water supply of 140 gpm at 60 psi through a 2-inch connection, and a centrate return connection capable of handling 250 gpm. Sludge withdrawal would be provided through a 4-inch camlock connection. All required utility and process connections would need to be located within approximately 50 feet of the mobile equipment. Adequate space and access would also be required for equipment placement, operation, and biosolids hauling.

A primary operational limitation of this alternative is the available sludge storage volume. The existing aerobic digester has a total capacity of approximately 100,000 gallons; however, approximately 50,000 gallons must be maintained in the tank to satisfy operational requirements. Therefore, only approximately 50,000 gallons would be available for withdrawal during a single dewatering event, assuming no additional sludge is transferred into the digester during processing. The vendor has indicated they could make more frequent trips, but it would likely lead to larger costs and less efficient operations.

At this time, mobile centrifuge dewatering is not considered a practical alternative due to the trip frequency and current logistical limitations associated with power supply.

C. Belt Filter Press

Belt filter press dewatering is a mechanical process that separates water from sludge through gravity drainage and progressive compression. Sludge is initially conditioned with polymer to promote flocculation and improve solids separation. The conditioned sludge is distributed onto a moving porous belt, where free water is removed by gravity. The partially dewatered sludge then passes between two tensioned belts through successive compression zones, where rollers apply increasing pressure to remove additional water. The process produces dewatered sludge cake and liquid filtrate.

For the City's WRF, the belt filter press alternative is preliminarily evaluated at a sludge feed rate of 35 gallons per minute (gpm), with an anticipated operating schedule of six hours per day, three days per week, for a total of 18 operating hours per week. Based on this operating schedule, the system would process approximately 12,600 gallons per operating day and 37,800 gallons per week. Assuming a sludge feed concentration of 2.0% total solids (TS), the estimated dry solids loading capacity would be approximately 350 pounds per hour, equivalent to 6,305 pounds per week.

The preliminary equipment selection consists of a skid-mounted filter press with a nominal hydraulic capacity ranging from 35 to 60 gpm. The proposed system includes a sludge feed pump, an in-line sludge mixer, a polymer preparation and dosing system, a wash water booster pump, an air compressor, and a master control panel. The equipment is mounted on a skid measuring approximately 18 feet long by 6 feet wide. The standard press frame consists of coated carbon steel, with stainless steel wetted components and a stainless-steel collection pan beneath the press. For the City's system, we would recommend reviewing 316 SS materials for the majority of the system components.

The proposed equipment requires a 460-volt, three-phase, 60-Hz electrical supply, with an estimated motor load of 15.5 Hp. The system requires approximately 55 gpm of wash water at 100 pounds per square inch gauge (psig), and compressed air at approximately 3 standard cubic feet per minute (scfm) and 100 psig service pressure. The filtrate and belt wash water would be collected and returned to the wastewater treatment process. The dewatered sludge cake would be discharged into a collection container for subsequent off-site transportation and disposal.

Several manufacturers are available to review. Preliminary coordination utilized Phoenix Process Equipment Model LC. **Figure V-1** is a depiction of the unit with preliminary drawings provided in **Appendix C**.

Units can be placed under cover, but we would recommend considering a building to provide further protection. Pending final design considerations, the enclosed area may be considered a 'classified' space per National Fire Protection Association (NFPA) 820 Fire Protection in Wastewater Treatment and Collection Facilities.

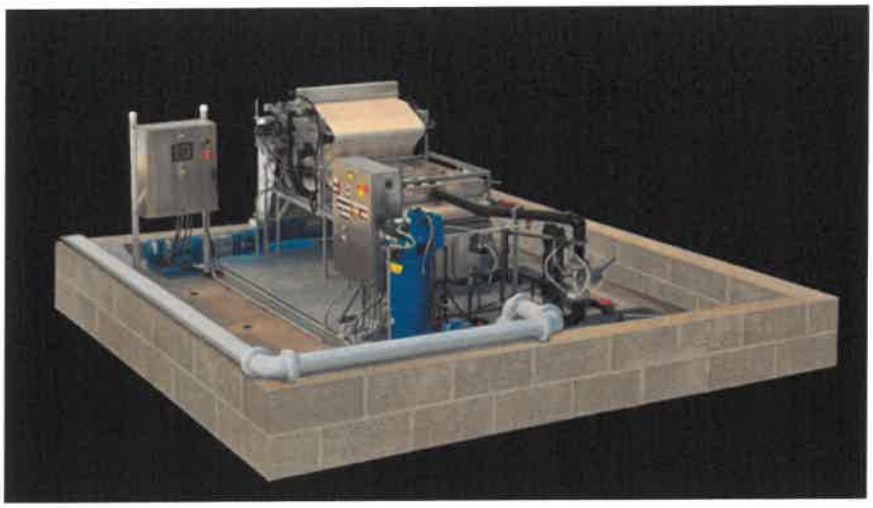


Figure V-1 *- Model LC (Phoenix) Belt-Filter press (image from Pheonix Website)*

D. Screw Press Sludge Dewatering System

Screw press dewatering is a mechanical process that separates water from sludge through gradual compression and filtration. Sludge is conditioned with polymer to promote flocculation and then introduced into the screw press, where a slowly rotating screw conveys the sludge through a cylindrical filtration screen. As the sludge advances through the press, increasing compression promotes water removal through the screen, producing dewatered sludge cake. The separated liquid (filtrate) is returned to the wastewater treatment process.

For the City's WRF, the screw press alternative is based on a design sludge feed rate of 35 gallons per minute (gpm) and an operating schedule of six hours per day, three days per week, for a total of 18 operating hours per week. Under these conditions, the system would process approximately 12,600 gallons per operating day and 37,800 gallons per week. At an assumed sludge feed concentration of

2.0% total solids (TS), the corresponding dry solids loading is approximately 350 pounds per hour, or 6,305 pounds per week.

The screw press considered for this alternative is constructed of 316 stainless steel. At a 2% (20,000 mg/L) sludge feed concentration of, the equipment has a rated hydraulic capacity of approximately 2,113 gallons per hour (35.2 gpm) and a dry solids processing capacity ranging from 220 to 441 pounds per hour. The estimated sludge loading falls within these operating ranges. The screw press has a rated power consumption of 3.3 kW and requires a 480-volt, three-phase electrical supply.

The dewatering system includes a flocculation tank, polymer preparation and dosing equipment, and a sludge feed pump. The screw press would be installed on an elevated support structure to allow gravity discharge of the dewatered sludge cake directly into a collection container positioned beneath the press discharge outlet. This configuration eliminates the need for a mechanical cake conveying system.

Based on the preliminary equipment information, the expected dewatered cake solids concentration is approximately 18% TS with polymer conditioning. The filtrate generated during dewatering would be returned to the plant headworks for treatment.

Similar to the belt-filter press, several manufacturers are available for review. Preliminary coordination utilized an Ecologix unit. **Figure V-2** is a depiction of the unit with preliminary drawings provided in **Appendix D**.

We would also recommend a building to provide further protection of the machine and ancillary equipment. NFPA 820 considerations would also be required for the enclosed space.



Figure V-2 - Ecologix Screw Press (image from manufacturer)

E. Continued Liquid Sludge Hauling and Disposal – Haack Environmental, LLC

Liquid sludge hauling involves removing sludge from the WRF using vacuum trucks and transporting it to an authorized receiving facility for treatment or disposal. Unlike mechanical dewatering, this method does not reduce the sludge volume before transportation.

The City currently contracts with Haack Environmental, LLC, for liquid sludge hauling and disposal services. The agreement is effective from June 8, 2026, through June 7, 2027, with a non-emergency hauling rate of $0.75 per gallon for sludge containing up to 2.0% total solids (TS). Emergency hauling is charged at the same rate plus $1,500 per truckload.

Historical records indicate annual pump-out volumes of 617,000 gallons in 2024 and 828,000 gallons in 2025. From January through July 2026, non-emergency pump-outs totaled 383,500 gallons, averaging approximately 54,786 gallons per month.

Under this alternative, the City would continue using its existing sludge storage facilities and contracted hauling services without installing new dewatering equipment or associated infrastructure.

We recommend a baseline study of the existing WRF operations to determine current solids handling metrics and the current system's efficacy in comparison to typical design values. The following steps are recommended:

1. Track wasting rates from the MBR to the ISAM Anaerobic Tank for the coming 12 months. Seasonal wasting requirements should also be a focus.

2. Track sludge levels in the ISAM Anaerobic Tank and associated wasting from the ISAM to the Aerobic Digester. As noted herein, the manufacturer recommends maintaining a 4.5 to 6.0 foot level of solids in the anaerobic tank.

3. Track decant rates from the Aerobic Digester to the WRF in-plant pump station.

4. Sample hauled sludge to determine actual total solids percentage. A 2.0% result should be the operational target pending current contract sludge hauling and disposal restrictions.

5. The ISAM system is approaching 9 to 10 years of service. Grit volumes in the ISAM Anaerobic Tank should be analyzed to determine current levels. The City should budget tank draining, grit removal, and tank inspection in the coming year or two. Elevated grit levels could impact efficacy of the ISAM Anaerobic Tank system.

As summarized in Section III. C., previous design evaluation estimated an average biosolids production of approximately 215 pounds of dry solids per day (lb DS/day), equivalent to 39.2 dry tons per year. Assuming no solids reductions in the ISAM Anaerobic Tank, the estimated 'average' wasting rate at 2% total solids is 38,000 gallons per month.

VI. COST REVIEW

The cost evaluation considers three sludge management alternatives for the City's Water Reclamation Facility (WRF): Continued Liquid Sludge Hauling and Disposal through Haack Environmental, LLC (Alternative No. 1), Belt Filter Press Dewatering (Alternative No. 2), and Screw Press Dewatering (Alternative No. 3). The evaluation includes capital costs, annual operation and maintenance (O&M) costs, and a life-cycle cost analysis. The Belt Filter Press and Screw Press alternatives require capital investment in dewatering equipment and associated

infrastructure, while continued liquid sludge hauling does not require additional capital improvements but involves recurring hauling and disposal expenditures.

The Mobile Centrifuge Dewatering System and Drying Beds / Dewatering Box alternatives were not advanced for further evaluation and are therefore excluded from the cost analysis.

A. Capital Cost

The total probable construction costs were estimated at $3,174,000 for the Belt Filter Press (**Table VI-1**) and $2,989,000 for the Screw Press (**Table VI-2**), including mechanical equipment, civil and structural improvements, process piping, electrical work, installation, and a 20% contingency. The Belt Filter Press alternative is more costly, primarily due to higher equipment costs. No additional capital expenditure is anticipated for the continued liquid sludge hauling alternative.

Table VI-1 Belt Filter Press					
Item	**Description**	**Quantity**	**Unit**	**Unit Price ($)**	**Extended Cost ($)**
A	**Mechanical Equipment**				
1	Belt Filter Press System (Equipment, Tax, Freight, Mark-up)	1	LS	$425,000	$425,000
2	Equipment Installation, Piping and Offloading	1	LS	$175,000	$175,000
B	**Civil and Structural**				
1	Existing Sludge Drying Bed Demolition	2,300	SF	$15	$34,500
2	Pilings and Foundation	1	LS	$45,000	$45,000
3	CMU Building	1,000	SF	$600	$600,000
4	Site Grading and Drainage Improvements	1	LS	$25,000	$25,000
5	Asphalt or Concrete Pavement Improv.	950	SF	$100	$95,000
C	**Mechanical and Process Piping**				
1	3" DI Sludge Feed Piping (Pump to Belt Filter Press)	130	LF	$200	$26,000
2	4" DI Filtrate Return Piping to Influent Pump Station	180	LF	$200	$36,000
3	Clean Water Supply Piping	1	LS	$7,500	$7,500
4	Cake Discharge Chute and Trailer Interface	1	LS	$20,000	$20,000
D	**Electrical and Instrumentation**				
1	Electrical Power Supply and Distribution	1	LS	$175,000	$175,000
2	Instrumentation and Control Integration	1	LS	$100,000	$100,000
E	**General Construction**				
1	Mobilization and Demobilization (5%)	1	LS	$90,000	$90,000
2	General and Special Conditions (20%)	1	LS	$350,000	$350,000
				CONSTRUCTION SUBTOTAL	**$2,204,000**
				Contingency **20%**	**$440,000**
				TOTAL PROBABLE CONSTRUCTION COST	**$2,644,000**
				NON-CONSTRUCTION COST (20%)	**$530,000**
				TOTAL PROJECT COST	**$3,174,000**

Table VI-2 Screw Press					
Item	**Description**	**Quantity**	**Unit**	**Unit Price ($)**	**Extended Cost ($)**
A	**Mechanical Equipment**				
1	Belt Filter Press System (Equipment, Tax, Freight, Mark-up)	1	LS	$325,000	$325,000
2	Equipment Installation, Piping and Offloading	1	LS	$175,000	$175,000
B	**Civil and Structural**				
1	Existing Sludge Drying Bed Demolition	2,300	SF	$15	$34,500
2	Pilings and Foundation	1	LS	$45,000	$45,000
3	CMU Building	1,000	SF	$600	$600,000
4	Site Grading and Drainage Improvements	1	LS	$25,000	$25,000
5	Asphalt or Concrete Pavement Improv.	950	SF	$100	$95,000
C	**Mechanical and Process Piping**				
1	3" DI Sludge Feed Piping (Pump to Belt Filter Press)	130	LF	$200	$26,000
2	4" DI Filtrate Return Piping to Influent Pump Station	180	LF	$200	$36,000
3	Clean Water Supply Piping	1	LS	$7,500	$7,500
4	Cake Discharge Chute and Trailer Interface	1	LS	$20,000	$20,000
D	**Electrical and Instrumentation**				
1	Electrical Power Supply and Distribution	1	LS	$175,000	$175,000
2	Instrumentation and Control Integration	1	LS	$100,000	$100,000
E	**General Construction**				
1	Mobilization and Demobilization (5%)	1	LS	$80,000	$90,000
2	General and Special Conditions (20%)	1	LS	$330,000	$330,000
				CONSTRUCTION SUBTOTAL	**$2,074,000**
				Contingency 20%	**$415,000**
				TOTAL PROBABLE CONSTRUCTION COST	**$2,489,000**
				NON-CONSTRUCTION COST (20%)	**$500,000**
				TOTAL PROJECT COST	**$2,989,000**

B. Operational and Maintenance Costs

The estimated annual operation and maintenance (O&M) costs were evaluated for the existing liquid sludge hauling and disposal system (Alternative No. 1), the Belt Filter Press (Alternative No. 2), and the Screw Press (Alternative No. 3). The evaluation includes labor, polymer consumption, electrical power, equipment maintenance and replacement parts, and sludge hauling and disposal costs, as applicable.

The City currently relies on off-site hauling and disposal of liquid sludge from the WRF's aerobic digester. Under the existing agreement with Haack Environmental, LLC, the City pays $0.75 per gallon for routine sludge hauling and disposal services. Based on the City's records, approximately 383,500 gallons of liquid sludge were removed through routine hauling operations between January and July 2026, representing an average of approximately 54,800 gallons per month. However, annual estimated hauling needs based on biological kinetic calculations anticipated an average monthly production of 38,000 gallons per month.

The current annual hauling volume would be approximately 657,400 gallons. Applying the current contractual rate of $0.75 per gallon results in an estimated annual hauling and disposal cost of $493,000. This estimate is based on routine sludge hauling activities and excludes emergency and other non-routine services.

Using design values, the estimated sludge production would be 463,000 gallons per year resulting in an estimated hauling and disposal costs of $347,250. For comparison purposes, the design value is utilized for a basis of review.

For the proposed mechanical dewatering alternatives, annual equipment operating costs were evaluated based on an operating schedule of six hours per day, three days per week, equivalent to 936 operating hours annually. Labor costs were estimated at approximately $19,000 per year for each alternative, assuming two hours of operator involvement per operating day and a labor rate of $60 per hour.

Annual polymer costs were estimated at approximately $8,000 for the Belt Filter Press and $6,000 for the Screw Press, based on assumed polymer dosages of 9.5 and 8.5 pounds of active polymer per dry ton of solids, respectively. Annual maintenance and replacement parts costs were estimated at $5,000 for the Belt Filter Press and $3,000 for the Screw Press. Electrical power costs were estimated at $1,300 and $2,100 per year, respectively.

For both mechanical dewatering alternatives, the annual sludge cake hauling and disposal cost was estimated at approximately $64,500, based on an estimated sludge cake production of 215 wet tons annually and an assumed combined transportation and landfill disposal cost of $300 per wet ton. The wet ton estimate is based on producing an 18% TS sludge cake with the design sludge production rate of 463,000 gallons at 2% TS from the aerobic digester.

As summarized in **Table VI-3**, the estimated total annual O&M costs are approximately $347,250 for the existing sludge hauling system, $257,758 for the Belt Filter Press, and $255,851 for the Screw Press. The Screw Press has the lowest estimated annual O&M cost, approximately $1,907 less than the Belt Filter Press.

Table VI-3
Annual Operation and Maintenance Cost Comparison

Item	Description	Alternative No. 1 Existing Sludge Hauling	Alternative No. 2 Belt Filter Press	Alternative No. 3 Screw Press
1	Labor Costs	—	$19,000	$19,000
2	Chemical Costs (Polymer)	—	$8,000	$6,000
3	Maintenance and Replacement Parts	—	$5,000	$3,000
4	Hauling and Disposal Costs	$347,250	$64,500	$64,500
5	Electrical Power Costs	—	$1,300	$2,100
	Total Annual O&M Costs	**$347,250**	**$97,800**	**$94,600**

C. Net Present Value Review

A net present value (NPV) analysis was conducted to compare the long-term costs of Continued Liquid Sludge Hauling and Disposal (Alternative No. 1), Belt Filter Press Dewatering (Alternative No. 2), and Screw Press Dewatering (Alternative No. 3). The evaluation considered initial capital costs, annual operation and maintenance (O&M) expenses, and salvage values over a 20-year planning period, using a 4% annual real discount rate and constant 2026 dollars.

The present worth of annual O&M costs was calculated using a uniform series present worth factor of 13.5903. Alternative No. 1 does not require additional capital investment and has an estimated annual hauling and disposal cost of $347,250. Alternatives No. 2 and No. 3 require initial capital investments of

$3,174,000 and $2,989,000, respectively, with corresponding annual O&M costs of $97,800 and $94,600, including sludge cake hauling and disposal.

Salvage values were not included in the analysis.

Table VI-4
Net Present Value Cost Comparison

Description	Existing Hauling	Belt Filter Press	Screw Press
Initial Capital Cost ($)	$0	$3,174,000	$2,989,000
Annual O&M Cost ($/year)	$347,250	$97,800	$94,600
Present Worth of O&M ($)	$4,720,000	$1,330,000	$1,290,000
Total Present Worth Cost ($)	**$4,720,000**	**$4,504,000**	**$4,279,000**

Based on the preliminary NPV analysis, the Screw Press (Alternative No. 3) has the lowest total present worth cost at approximately $4.30 million, followed by the Belt Filter Press (Alternative No. 2) at $4.50 million and Continued Liquid Sludge Hauling and Disposal (Alternative No. 1) at $4.70 million.

For every 0.1 MGD increase in wastewater flow above the 0.220 MGD baseline, the 20-year NPV savings increase by approximately $1.71 million for the Screw Press and $1.69 million for the Belt Filter Press compared to continued liquid sludge hauling.

On a present-worth basis, the sludge hauling and disposal cost reduction with either alternative represents an estimated savings of $249,500 per year or $3.40 million dollars at the 20-year planning period. Should the City obtain grant funding for the capital needs, then the analysis further highlights and boosts the present-worth delta.

These results indicate that mechanical dewatering could provide substantial long-term cost savings compared with continued liquid sludge hauling. Among the alternatives evaluated, the Screw Press is the most economical under the preliminary cost assumptions. However, the results are subject to confirmation of sludge production quantities, equipment performance, and future hauling and disposal costs.

Any efficiencies obtained in the mixed liquor system would also translate to further O&M savings for the reviewed alternatives through sludge hauling and disposal cost reductions.

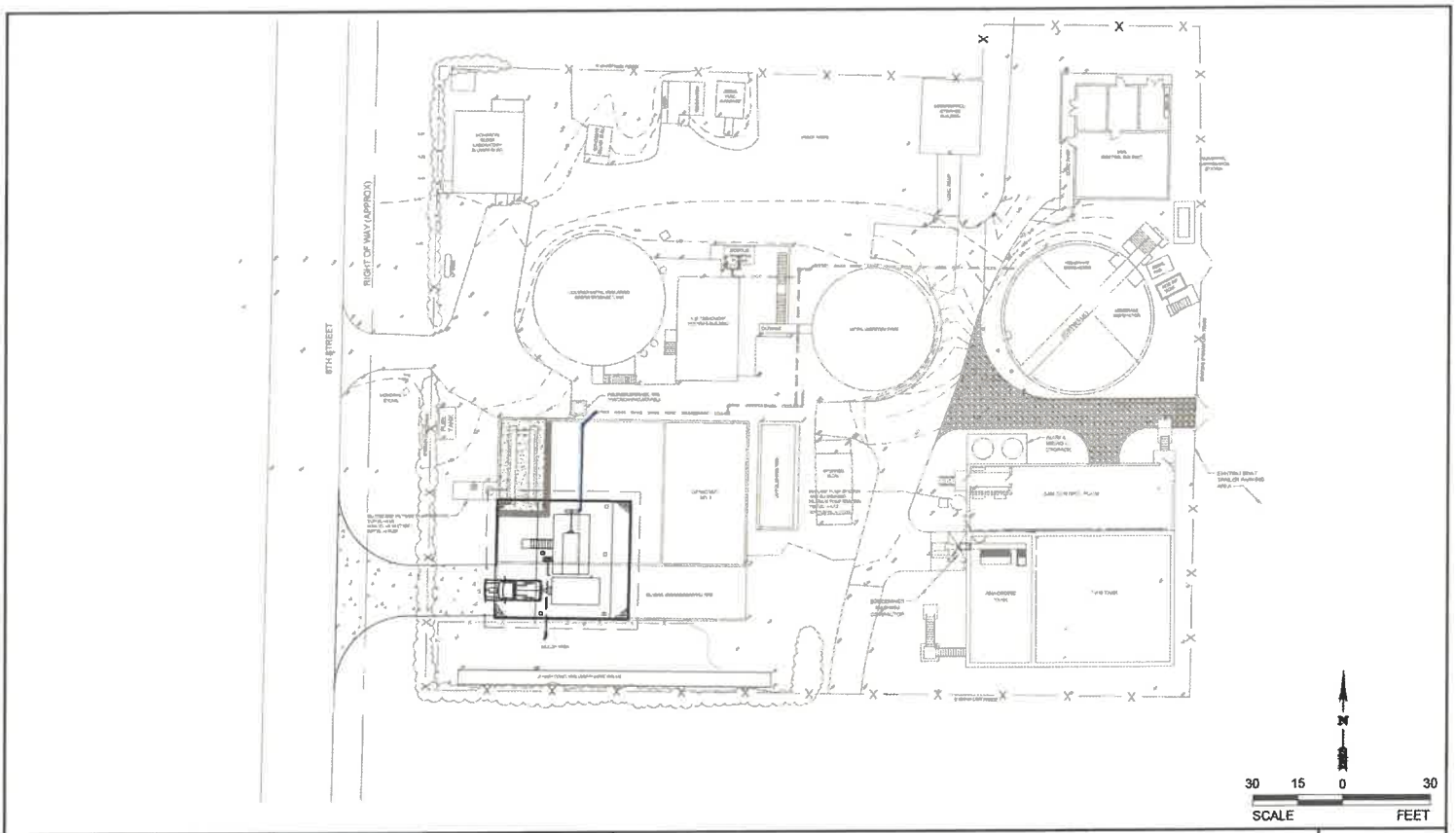
VII. SUMMARY AND CONCLUSIONS

The evaluation of sludge management alternatives for the City of Key Colony Beach WRF identified mechanical dewatering as a potential solution to reduce sludge hauling and disposal costs and improve biosolids management. The evaluation considered continued liquid sludge hauling and disposal through Haack Environmental, LLC, Belt Filter Press Dewatering, and Screw Press Dewatering. Two additional dewatering technologies, Mobile Centrifuge Dewatering and Drying Beds/Dewatering Box, were considered but not advanced for detailed evaluation.

Both mechanical dewatering alternatives were evaluated at a design sludge feed rate of 35 gallons per minute (gpm), assuming a feed solids concentration of 2.0% and an operating schedule of six hours per day, three days per week. The Screw Press offers operational advantages, including lower wash water requirements, reduced maintenance needs, and gravity discharge of dewatered sludge cake directly into a collection container.

Based on the preliminary technical and economic evaluation, the Screw Press is recommended as the preferred alternative for sludge dewatering at the City's WRF. This alternative offers the lowest estimated capital and annual operating costs, along with operational advantages related to maintenance and wash water requirements.

Exhibits 3 and 4 illustrate the proposed site layouts for the sludge dewatering building, presenting alternative configurations for vehicular access to the building. **Exhibit 5** illustrates the proposed Screw Press dewatering system concept, including the discharge of dewatered sludge cake directly into a bumper-pull dump trailer. The exhibits were completed with a preliminary canopy covering the process area, but the cost analysis included considerations for an enclosed building. Conceptual building layouts can be provided for the City's consideration should further evaluation of the alternative be required.



Designed by:	JRS	Date: 10/2026	
Drawn by:	SJL	Job No. M060408	
Checked by:	JRS		
Approved by:	JRS	© 2026	
Scale:	1" = 30'		

cph
www.cphcorp.com

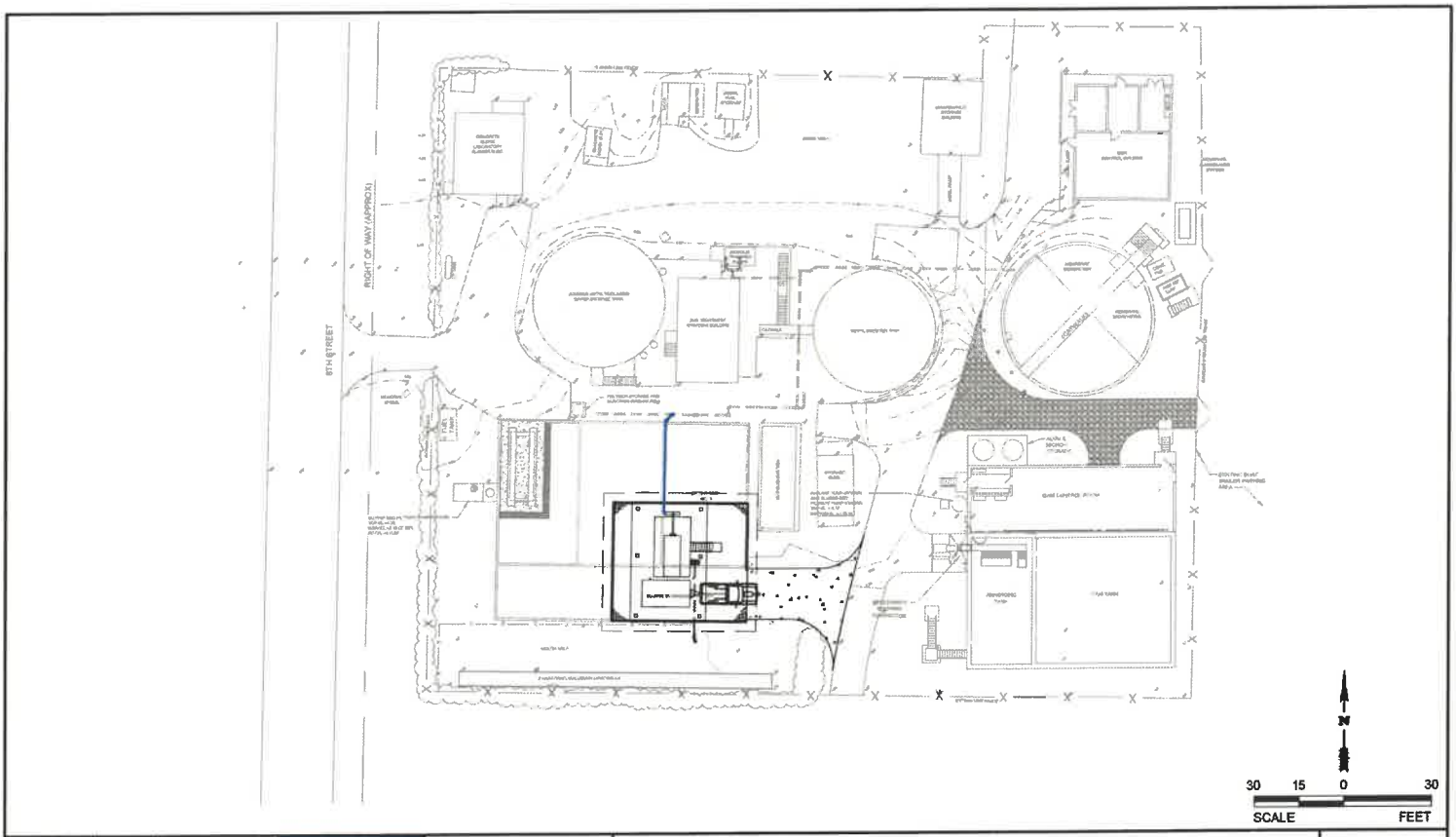
Building Stronger Communities Together

586-1 Wells Road
Orange Park, FL 32073
Ph: 904.278.0030

PROPOSED DEWATERING BUILDING - OPTION 1

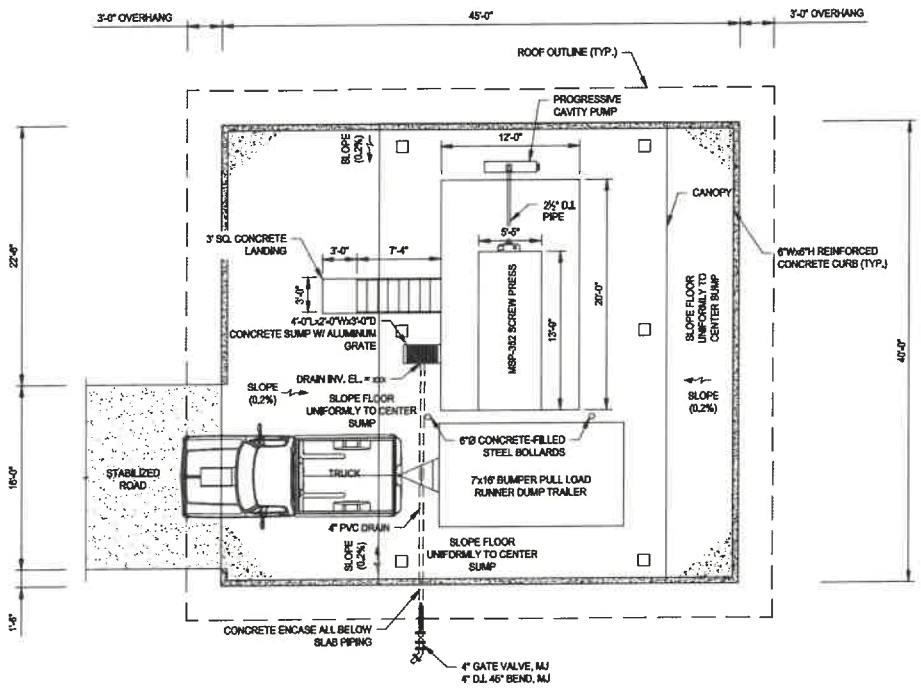
DEWATERING STUDY
City of Key Colony Beach, Florida

Exhibit
3



Designed by:	JRS	Date: 10/2026	cph www.cphcorp.com	Building Stronger Communities Together 580-1 Wells Road Orange Park, FL 32073 Ph: 904.278.0030	PROPOSED DEWATERING BUILDING - OPTION 2 DEWATERING STUDY City of Key Colony Beach, Florida
Drawn by:	SJL	Job No. M060408			
Checked by:	JRS				
Approved by:	JRS	© 2026			
Scale:	1" = 30'				

Exhibit 4



SLUDGE DEWATERING BUILDING - PLAN

3/8" = 1'-0"

NOTE:
THIS DRAWING IS PRELIMINARY.
NOT FOR CONSTRUCTION.

Designed by:	JRS	Date: 10/2026	cph www.cphcorp.com	Building Stronger Communities Together	SLUDGE DEWATERING BUILDING
Drawn by:	SJL	Job No. M060408		586-1 Wells Road Orange Park, FL 32073 Ph: 904.278.0030	DEWATERING STUDY City of Key Colony Beach, Florida
Checked by:	JRS	© 2026			Exhibit 5
Approved by:	JRS				
Scale:	[redacted]				

Appendix A | Executed Sludge Hauling Agreement

THE CITY OF KEY COLONY BEACH, FLORIDA
Contract for Goods & Services

This Contract entered into on the date last written below, by and between **HAACK ENVIRONMENTAL, LLC.** (the "Contractor") and the **CITY OF KEY COLONY BEACH, FLORIDA** (the "City"). In consideration of the mutual covenants and benefits hereinafter set forth, the parties herein covenant and agree as follows:

1. TERM

The term of this Contract shall be from June 8, 2026, through June 7, 2027.

This Contract may be renewed for up to three (3) additional one-year terms upon mutual written agreement of the parties. Renewal is not automatic and is subject to the same terms and conditions, unless otherwise amended in writing.

2. CONTRACTOR'S SERVICES

Contractor agrees to perform non-emergency and emergency WWTP Sludge Hauling and non-emergency and emergency lift station cleaning.

Hauling will be from the City's wastewater plant at 600 8th Street, Key Colony Beach, FL 33051 and/or the City's fifteen (15) lift stations, to a FDEP permitted site designated by the Bidder and agreed to by the City in accordance with the terms of this RFP. The successful bidder will be required to provide City supporting documentation of the hauling and disposal of the domestic sludge including the location and amounts of disposal.

Documentation of the specific goods/services in Contractor's Proposal to the City is attached and labeled as *Attachment "A"* to this Contract and is incorporated herewith by reference. In the event there is a conflict between the terms of the Contractor's Proposal, and this Agreement, the terms of this Agreement shall prevail.

3. COMPENSATION

3.1 Contractor agrees to perform non-emergency WWTP hauling of domestic sludge hauling. Hauling will be on an as-requested and as-needed basis with a minimum load size of two thousand and five hundred (2,500) gallons at a rate of $0.75 per gallon. Contractor shall provide these services within a 24-hour response time, time for performance being of the essence.

3.2 The Contractor shall perform non-emergency lift station cleaning at a rate of $975.00 each. The price is per station at normal operating levels to be cleaned a minimum of twice annually. Price includes jet washing the lift station basins. Up to fifteen (15) lift stations are to be cleaned concurrently. Contractor shall provide these services within a twenty-four (24) hour response time, time for performance being of the essence.

3.3 Emergency WWTP sludge hauling with a ninety (90) minute response time will be $0.75 per gallon plus $1,500.00 per truck load and shall have a minimum load size of two thousand and five hundred (2,500) gallons.

3.4 Emergency Lift Station Pumping shall be provided within a ninety (90) minute response time, time for performance being of the essence, at a rate of $0.75 per gallon plus $1,500.00 per truck load.

3.5 Per gallon unit prices stated above are based on a total solids concentration not to exceed 2.0% total solids. Contractor reserves the right, at its sole expense, to periodically obtain independent certified laboratory testing to verify the total solids concentration of the sludge. In the event such independent testing confirms that the total solids concentration of any load exceeds 2.0%, Contractor shall provide City with the corresponding independent test results. Upon confirmation of the same by the City, the per gallon unit price for that load shall be equitably increased in direct proportion to the percentage by which the verified measured total solids concentration exceeds 2.0%.

3.6 No payment to Contractor shall be due until the City verifies that all services for which payment has been requested have been fully and satisfactorily performed by Contractor. The City will make diligent efforts to verify and pay invoices within one (1) payment cycle after receipt.

4. INSURANCE

Contractor agrees to secure and maintain at all times during the term of this Contract, at Contractor's expense, insurance coverage, as laid out below, covering Contractor for all acts or omissions which may give rise to liability for services under this Contract. All Contractor staff are to be insured in minimum amounts acceptable to the City and with a reputable and financially viable insurance carrier, naming the City of Key Colony Beach, Florida as an additional insured. Such insurance shall not be cancelled except upon thirty (30) days' written notice to the City. Contractor shall provide The City with a certificate evidencing such insurance coverage within five (5) days after obtaining such coverage. Contractor agrees to notify the City immediately of any material change in any insurance policy required to be maintained by Contractor.

- Comprehensive General Liability - with minimum occurrence limits of $1,000,000 and General Aggregate of $2,000,000 (Should limits of $1,000,000 be prohibitive due to exposure or availability, $500,000/$1,000,000 may be sufficient). The liability policy will need to include an Additional Insured endorsement naming the City of Key Colony Beach, Florida.

- Commercial Auto Coverage - with minimum combined single limit of $1,000,000 (Should $1,000,000 be prohibitive due to exposure of availability, $500,000 may be sufficient).

- Workers Compensation - Statutory limits and Employers Liability $100,000 /500,000/100,000. Note, if the contract is with a sole proprietor with no employees, he/she may not have Workers Compensation and may not be required by the state of Florida to carry this coverage. If this is the case and you decide to waive the WC requirement, we recommend that the City specifically include a disclaimer in the contract describing the status as an Independent Contractor and a sole proprietor with no employees and confirming that the City would not be responsible for providing Workers Compensation coverage for any work related injury or illness.

Contractor is required to obtain and keep the coverage, with documentation of having obtained such coverage being attached hereto as *Attachment "B"* for the duration of this Contract and any renewals.

5. WARRANTY

Contractor agrees to correct, at its own expense, any defects in the good/services performed under this Contract caused by faulty materials and/or workmanship within one year from the date of full completion. This warranty does not extend to workmanship and/or materials that were not supplied by Contractor. In the event that such defects are discovered during the warranty period, The City shall notify Contractor of the defect in writing and shall allow Contractor a reasonable time in which to make any repairs necessary to correct the defect.

Contractor hereby represents and warrants that: (1) materials and equipment furnished under the Contract Documents will be new and of good quality; (2) the work will be free from defects for a period of one (1) year from the date of final completion of the Project and acceptance by the City; and (3) the work performed on the Project will conform to all requirements, standards and specifications of the Contract Documents. Upon completion of the Project, Contractor shall assign any subcontractor's, manufacturer's, and/or materialman's warranties to the City.

a. *Correction of Work.* Contractor shall promptly correct any and all work rejected by the City as failing to conform to the requirements of the Contract Documents. If Contractor fails to correct work which is not in accordance with the Contract Documents, the City may direct Contractor in writing to stop the work until the correction is made. Contractor shall bear the cost of correcting such rejected work, including the costs of uncovering, replacement, and additional testing. In addition to Contractor 's other obligations including warranties under the Contract Documents and for the entire period of such warranty, Contractor shall correct work not conforming to the requirements of the Contract Documents.

b. *Right to Carry Out Work.* If Contractor defaults or neglects to carry out the work in accordance with the Contract Documents and fails within a three (3) day period after receipt of written notice from the City to commence and continue correction of such default or neglect with diligence and promptness, the City may, without prejudice to other remedies, correct such deficiencies. In such case, the Contract

Total may be adjusted to deduct the cost of correction from payments due Contractor.

6. DELAY IN PERFORMANCE

The timely receipt of the Project and all submittals and deliverables associated therewith is essential. If the Project and all deliverables associated therewith are not received on time and the City has given the Contractor written notice including seven (7) business days to cure the delay, the City may cancel the unfilled portion of this Agreement for cause, purchase substitute requirements elsewhere, and recover from Contractor any increased costs and damages thereby incurred by the City. Notwithstanding the foregoing, the City may, in its sole discretion, suspend the work or any portion thereof by written notice to Contractor. If such suspension would cause a delay in performance, Contractor shall provide notice to the City in accordance with subsection (d) below.

a. *Force Majeure.* Contractor shall be entitled to a reasonable extension of time from the City for the delays resulting from damage to Contractor's and/or the City's property caused by fire, lightning, earthquakes, tornadoes, and other extreme weather conditions, power failures, riots, acts of war, strikes or lockouts beyond the control of Contractor and its subcontractors ("Force Majeure"). The determination of whether such delay is a result of Force Majeure and the amount of time for such extension shall be in the sole discretion and determination of the City and no such delay shall serve to increase the Contract Time without prior approval by the City Commission.

b. *Unavoidable Delay.* If the work on the Project is unavoidably delayed and Contractor has provided notice in accordance with subsection (d) below, the City may, in its sole discretion, extend the time for completion for a determined number of days of excusable delay. A delay is unavoidable only if the delay was not reasonably expected to occur in connection with or during Contractor's performance; was not caused directly or substantially by negligent errors, omissions, or mistakes of Contractor, its subcontractors, or its suppliers or their agents; was substantial; and, in fact, caused Contractor to miss delivery dates and could not adequately have been guarded against. No extension of work shall extend the Contract Time, unless set forth in writing and approved by the City Commission.

c. *No Damages for Delay.* Contractor shall not be entitled to any claim for damages on account of hindrances or delays in the work from any cause whatsoever, including any delays or hindrances caused by the City. This paragraph shall include, but not be limited to, any actions which result in delays in scheduling, changes to the Work, or increases in the costs of performing the work under the Contract Documents.

d. *Notification of Delay.* Contractor shall provide written notice to the City in accordance with section 9 of this Agreement if Contractor has, or should have, knowledge that an event has occurred which will delay completion of the Project.

Failure to submit the notice of claim strictly in accordance with the provisions of section 9 shall bar any claim of Contractor.

7. REPROCUREMENT UPON TERMINATION

Provided the City has first given the Contractor written notice allowing Contractor seven (7) business days to cure the cause prior to any termination by the City, if this Agreement is terminated by the City for cause, in addition to all other remedies, Contractor shall be liable for all expenses incurred by the City in reprocuring elsewhere the same or similar items or services offered by Contractor.

8. NOTICE OF CLAIM

In the event that Contractor has any controversy, claim or dispute arising out of or related to the Contract Documents, whether such claim or dispute involves a claim by Contractor for additional time, delay, compensation for a change order, any increase in the Contract Total or extension of the Contract Time, or otherwise, Contractor shall present a written Notice of Claim to the City within five (5) days of Contractor's knowledge, whether actual or whether Contractor should have known, of the controversy, claim, dispute or the facts out of which the controversy, claim or dispute arises. This written Notice of Claim must specifically indicate, in bold type, on the face of the notice, that it is a Notice of Claim, and whether part of the dispute is over Contractor seeking additional time, compensation or both. Additionally, Contractor must set forth in the Notice of Claim the nature of the controversy, claim or dispute, including all necessary facts. Contractor shall provide to the City any documentation supporting Contractor's claim or position within twenty (20) days of providing the Notice of Claim. Contractor shall be deemed to have waived any claim which Contractor fails to present to the City within the time frames stated herein or in the manner provided in this subsection. Any change in the Contract Total or Contract Time, and any claim for additional compensation must be approved by the City Commission. Contractor shall not be entitled to any additional compensation, an increase in the Contract Total or an increase in the Contract Time unless and until approved by the City Commission. If Contractor proceeds with any work without said approval or without complying strictly with the procedures set forth in this subsection, it does so at its own risk.

9. COMPLIANCE WITH LAWS AND POLICIES

Contractor agrees to comply with City policies and all applicable local, state, and federal laws, including laws; including public records.

Public Records. To the extent Contractor is acting on behalf of City as stated in Section 119.0701, Florida Statutes, Contractor shall:

a. Keep and maintain public records required by City to perform the Services;

b. Upon request from City, provide City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time and at a cost that does not exceed that provided in Chapter 119, Florida Statutes, or as otherwise provided by law;

c. Ensure that public records that are exempt or confidential and exempt from public record requirements are not disclosed except as authorized by law for the duration of this Agreement and following completion or termination of this Agreement if the records are not transferred City; and

d. Upon completion or termination of this Agreement, transfer to City, at no cost, all public records in Contractor's possession or keep and maintain public records required by City to perform the services. If Contractor transfers the records to City, Contractor shall destroy any duplicate public records that are exempt or confidential and exempt. If Contractor keeps and maintains the public records, Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to City upon request in a format that is compatible with the information technology systems of City.

A request for public records regarding this Agreement must be made directly to City, who will be responsible for responding to any such public records requests. Contractor will provide any requested records to City to enable City to respond to the public records request.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S; DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS BY EMAIL AT: CITYCLERK@KEYCOLONYBEACH.NET, OR BY MAIL TO: CITY OF KEY COLONY BEACH, FLORIDA, ATTN: CUSTODIAN OF PUBLIC RECORDS, 600 W. OCEAN DRIVE, KEY COLONY BEACH, FL 33051, OR BY CALL TO (305) 289-1212 EXT 2.

10. INDEPENDENT CONTRACTOR STATUS

Contractor is, for all purposes arising under this Contract, an independent contractor. Contractor and its officers, agents or employees shall not, under any circumstances, hold themselves out to anyone as being officers, agents, or employees of the City.

11. TERMINATION

A. WITHOUT CAUSE

This Contract may be terminated for any reason by the City upon thirty (30) days written notice to the Contractor at the addresses set forth below. If said Contract should be terminated as provided in this paragraph of the Contract, The City will be relieved of all

obligations under said contract and The City will only be required to pay that amount of the contract actually performed to the date of termination with no payment due for unperformed work or lost profits.

B. TERMINATION FOR BREACH

Either party may terminate this Contract upon breach by the other party of any material provision of this Contract, provided such breach continues for fifteen (15) days after receipt by the breaching party of written notice of such breach from the non-breaching party.

C. IMMEDIATE TERMINATION BY THE CITY

The City may terminate this Contract immediately upon written notice to Contractor (such termination to be effective upon Contractor's/Individual's receipt of such notice) upon occurrence of any of the following events:

i. the denial, suspension, revocation, termination, restricting, relinquishment or lapse of any license or certification required to be held by the Contractor, or of any Company/Individual staff's professional license or certification in the State of Florida;
ii. conduct by Contractor or any Company/Individual staff which affects the quality of services provided to The City or the performance of duties required hereunder and which would, in The City's sole judgment, be prejudicial to the best interests and welfare of The City and/or its employees;
iii. failure by Contractor to maintain the insurance required by the terms of this Contract.
iv. any other breach of this agreement.

12. ASSIGNMENT

Neither Contractor nor the City of Key Colony Beach, Florida may assign or transfer any interest in this Contract without the prior written consent of both parties. Should an assignment occur upon mutual written consent, this Contract shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, representatives, successors, and assigns.

13. AMENDMENT

This Contract may be amended only with the mutual consent of the parties. All amendments must be in writing and must be approved by the City of Key Colony Beach, Florida.

14. INDEMNIFICATION, GOVERNING LAW & VENUE

Contractor shall indemnify and hold harmless the City of Key Colony Beach, Florida from and against any and all claims, liabilities, damages, and expenses, including, without limitation,

reasonable attorneys' fees, incurred by the City in defending or compromising actions brought against it arising out of or related to the acts or omissions of Contractor, its agents, employees, or officers in the provision of services or performance of duties by Contractor pursuant to this Contract.

This Contract shall be construed in accordance with the laws of the State of Florida. Any dispute arising hereunder is subject to the laws of Florida, exclusive venue in Monroe County, Florida. The prevailing party shall be entitled to reasonable attorney's fees and costs incurred as a result of any action or proceeding under this Contract.

15. E-VERIFY

Pursuant to Florida Statute § 448.095, Contractor shall be required to register with and use the United States Department of Homeland Security's E-Verify system to verify the work authorization status of all employees hired after January 1, 2021. The City's E-Verify affidavit is included to the end of this contract. If Contractor enters into any contract with a subcontractor, Contractor shall be required to obtain an affidavit from the subcontractor confirming that the subcontractor does not employ, contract with, or subcontract with any person who is not authorized under federal law to be employed in the United States. Contractor shall be required to maintain a copy of said affidavit for the duration of the Contract Term and shall produce said affidavit to the City upon request. Notwithstanding any other provision herein, City reserves the right to immediately terminate this Contract upon notice to Contractor that the City has developed a good faith belief that Contractor has knowingly violated this section.

16. REPRESENTATIONS, WARRANTIES & DEBARMENT

Affidavits pertaining to the matters set forth below are included with the Contractor's RFP 2026-02 submittal, attached hereto as *Attachment "A"*. Contractor represents and warrants to the City of Key Colony Beach, Florida, upon execution and throughout the term of this Contract that:

1) Contractor is not bound by any Contract or arrangement which would preclude it from entering into, or from fully performing the services required under the Contract;

2) None of the Contractor's agents, employees or officers has ever had his or her professional license or certification in the State of Florida, or of any other jurisdiction, denied, suspended, revoked, terminated and/or voluntarily relinquished under threat of disciplinary action, or restricted in any way;

3) Contractor has not been convicted of a public entity crime as provided in F.S. §287.133, to wit: A person or affiliate who has been placed on the convicted contractor list following a conviction for public entity crime may not submit a bid, proposal, or rely on a contract to provide any goods or services to a public entity, may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair

of a public building or public work, may not submit bids on leases of real property to public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted Contractor list.; and

4) Contractor and Contractor's agents, employees and officers have, and shall maintain throughout the term of this Contract, all appropriate federal and state licenses and certifications which are required in order for Contractor to perform the functions, assigned to him or her in connection with the provisions of the Contract.

5) Contractor certifies that, neither the firm nor any person associated therewith in the capacity of owner, partner, director, officer, principal, investigator, project director, manager, auditor, and/or position involving the administration of federal funds:

(i) Is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions, as defined in 29 CFR Part 93, Section 98.510, by any federal department or agency; (ii) Has not within a three-year period preceding this certification been convicted of or had a civil judgment rendered against it for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state, or local government transaction or public contract; violation of federal or state antitrust statutes; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(ii) Has not within a three-year period preceding this certification had one or more federal, state, or local government public transactions terminated for cause or default.

17. CONFIDENTIALITY

Contractor recognizes and acknowledges that by virtue of entering into this Contract and providing services hereunder, Contractor, its agents, employees and officers may have access to certain confidential information. Contractor agrees that neither it nor any Contractor agent, employee or officer will at any time, either during or subsequent to the term of this Contract, disclose to any third party, except where permitted or required by law or where such disclosure is expressly approved by The City in writing, any confidential/personally identifiable information. Contractor, its agents, employees and officers shall comply with all Federal and State laws and regulations and all policies of The City regarding the confidentiality of such information.

18. BILLING

Bills for fees or compensation under this contract shall be submitted in detail sufficient for a proper pre-audit and post-audit thereof. Further, bills for any travel expenses shall be submitted in accordance with Florida Statute §112.061 where applicable.

19. THIRD-PARTY BILLING AND PAYMENT

To the extent applicable with regard to the services provided in this Contract, Contractor shall not be entitled to bill nor accept third-party payment without authorization of The City. Contractor agrees that The City shall not be obligated to make any payment that exceeds the rate referred to in the paragraph governing Compensation. The Contractor shall provide service documentation in accordance with professional standards and criteria of The City as requested.

20. CONTRACT RECORDS RETENTION

Pursuant to Florida Statute 119.0701, Contractor agrees to:

(a) Keep and maintain public records that ordinarily and necessarily would be required by the public agency in order to perform the service.

(b) Provide the public with access to public records on the same terms and conditions that the public agency would provide the records and at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.

(c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law.

(d) Meet all requirements for retaining public records and transfer, at no cost, to the public agency all public records in possession of the Contractor upon termination of the contract and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the public agency in a format that is compatible with the information technology systems of the public agency.

Failure of Contractor to comply with this section and F.S. §119.0701 may include, but not be limited to, The City holding the Contractor in default, termination of the contract or legal action.

21. ETHICS CLAUSE

Contractor warrants that he/it has not employed, retained or otherwise had act on his/its behalf any former City staff or employee. For breach or violation of this provision The City may, in its discretion, terminate this contract without liability and may also, in its discretion, deduct from the contract or purchase price, or otherwise recover the full amount of any fee, commission, percentage, gift or consideration paid to the former City staffer or employee.

22. CONFLICT OF INTEREST

The following provisions shall apply for conflict of interest. Any violation of these provisions by a City employee may be grounds for dismissal. No contract for goods or services may be made with any business organization in which the Director or a City member has any material financial interest unless it is a single source or clear documentation exists to show that, no other supplier can provide the identical/comparable goods/service, at a lower cost to the City. No City member, officer or employee may directly or indirectly purchase or recommend the purchase of goods or services from any business organization which they or their near relative have a material interest as defined by §112.313, Florida Statutes. No City member, employee or official may receive gifts or any preferential treatment from Contractors. Such members, officers, officials, or employees shall not be prohibited from participating in any activity or purchasing program that is offered to all City employees or in City surplus sales, provided there is no preferential treatment.

23. SEVERABILITY

The parties recognize and agree that should any clause(s) herein be held invalid by a Court of competent jurisdiction, the remaining clauses shall not be affected and shall remain of full force and effect.

24. COUNTERPARTS

This Contract may be executed in one or more counterparts, all of which together shall constitute only one Contract.

25. WAIVER

A waiver by either party of a breach or failure to perform hereunder shall not constitute a waiver of any subsequent breach or failure to perform. Any waiver of insurance requirements as provided by this Contract and/or the policies of the City does not relieve the Contractor of the indemnification provisions contained within this Contract.

26. CAPTIONS

The captions contained herein are used solely for convenience and shall not be deemed to define or limit the provisions of this Contract.

27. ENTIRE CONTRACT

The parties hereto agree that this is the final Contract between the parties and supersedes any and all prior Contracts and/or assurances, be it oral or in writing.

28. NOTICES

All notices required by this Contract, unless otherwise provided herein, by either party to the other shall be in writing, delivered personally, by certified or registered mail, return receipt requested, or by Federal Express or Express Mail, and shall be deemed to have been duly given

when delivered personally or when deposited in the United States mail, postage prepaid, addressed as follows:

City of Key Colony Beach, Florida: City Clerk City of Key Colony Beach P.O. Box 510141 Key Colony Beach, FL 33051 With a copy to: City of Key Colony Beach, Florida Counsel Vernis & Bowling of the Florida Keys, P.A. 81990 Overseas Hwy, 3rd Floor Islamorada, FL 33036	The Contractor: Chris Haack, President Haack Environmental, LLC 79 Industrial Rd Big Pine Key, FL 33043 305-786-7688 info@haackenvironmental.com

29. NO WAIVER OF SOVERIGN IMMUNITY

Nothing herein is intended to serve as a waiver of sovereign immunity by any agency or political subdivision to which sovereign immunity may be applicable.

30. NO THIRD-PARTY BENEFICIARIES

The Parties expressly acknowledge that it is not their intent to create or confer any rights to or obligations upon any third person or entity under this Agreement.

IN WITNESS WHEREOF, the Parties hereto have made and executed this Contract on this 8 day of JUNE, 2026.

FOR CITY OF KEY COLONY BEACH, FLORIDA:

SIGNATURE OF MAYOR — DATE 6/8/2026

FOR CONTRACTOR:

SIGNATURE OF CONTRACTOR — DATE: 1/8/26

Christopher Haack
PRINT NAME

President
TITLE

Appendix B | WRF Operating Permit

FLORIDA DEPARTMENT OF Environmental Protection

Southeast District Office
3301 Gun Club Road, MSC 7210-1
West Palm Beach, Florida 33406-3007

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

April 27, 2023

In the Matter of an
Application for Permit by:

City of Key Colony Beach
Patricia Trefry, City Mayor

P.O. Box 510141
Key Colony Beach, Florida 33051
mayor@keycolonybeach.net

File Number FLA014720-020-DW2P
Monroe County
City of Key Colony Beach WWTF

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number FLA014720 to operate the Key Colony Beach, City of, issued under Chapter 403, Florida Statutes.

Please note that the effective date of the permit is April 27, 2023, the same as the issuance date of this notice.
The expiration date of the permit is April 26, 2028.

Monitoring requirements under the permit begins on June 1, 2023, the first day of the second month following the effective date of the permit.

NOTICE OF RIGHTS

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even denial of the application.

Petition for Administrative Hearing
A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;
(b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
(c) A statement of when and how the petitioner received notice of the agency decision;
(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
(e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
(f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@FloridaDEP.gov. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant and persons entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first. You cannot justifiably rely on the finality of this decision unless notice of this decision and the right of substantially affected persons to challenge this decision has been duly published or otherwise provided to all persons substantially affected by the decision. While you are not required to publish notice of this action, you may elect to do so pursuant Rule 62-110.106(10)(a), F.A.C.

The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C. If you do not publish notice of this action, this waiver may not apply to persons who have not received a clear point-of-entry.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@FloridaDEP.gov, before the deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation
Mediation is not available in this proceeding.

Judicial Review
Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department in the Office of General Counsel (Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000) and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days from the date this action is filed with the Clerk of the Department.

EXECUTION AND CLERKING

Executed in Orlando, Florida.
STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Norva Blandin, MSEM
Permitting Program Administrator
Southeast District

April 27, 2023
Date

NB/MD/ ls: FLA014720-020-DW2P-NR

Attachment(s):
1. Permit No. FLA014720

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this document and all attachments were sent on the filing date below to the following listed persons:

DEP: Norva Blandin, Margie DeBerry, Bridjette Bucell
Jason R. Shepler, Mittauer & Associates, Inc., jshepler@mittauer.com

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Zachary Erin Dolan
Clerk

April 27, 2023
Date

FLORIDA DEPARTMENT OF Environmental Protection

Southeast District Office
3301 Gun Club Road, MSC 7210-1
West Palm Beach, Florida 33406-3007

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

STATE OF FLORIDA
DOMESTIC WASTEWATER FACILITY PERMIT

PERMITTEE:
City of Key Colony Beach

RESPONSIBLE OFFICIAL:
Patricia Trefry, City Mayor
P.O. Box 510141
Key Colony Beach, Florida 33051
(305) 289-1212
mayor@keycolonybeach.net

PERMIT NUMBER: FLA014720
FILE NUMBER: FLA014720-020-DW2P-NR
FACILITY: City of Key Colony Beach WWTP
ISSUANCE DATE: April 27, 2023
EFFECTIVE DATE: April 27, 2023
EXPIRATION DATE: April 26, 2028

FACILITY:
City of Key Colony Beach WWTP
600 N. 8th Street
Key Colony Beach, FL 33051-141
Monroe County
Latitude: 24°43' 30.6094" N Longitude: 81°1' 17.2068" W

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and applicable rules of the Florida Administrative Code (F.A.C.). This permit does not constitute authorization to discharge wastewater other than as expressly stated in this permit. The above-named permittee is hereby authorized to operate the facilities in accordance with the documents attached hereto and specifically described as follows:

WASTEWATER TREATMENT:

The facility is an existing, domestic advanced wastewater treatment (AWT) domestic wastewater treatment facility (WWTF) with reclaimed water public-access treatment capabilities. The permitted capacity is 0.340 million gallons per day (MGD), annual average daily flow (AADF). The facility consists of the following systems:

- Influent Screening System with: one (1) 10- foot static screen with 2 mm screening capabilities; and one (1) emergency-back-up-aluminum-bar rack with 1/4-inch screenings.

- Integrated Surge Anoxic Mixing (ISAM) System that consists of the following components:
  One (1) 98,900-gallon Anaerobic Basin;
  One (1) Surge and Anoxic Mixing (SAM) Basin (45'-4" x 42'-8") with a jet mixing system comprised of one (1) 1,600gpm Motive Pump and two (2) 240 scfm SAM positive-displacement (PD) blowers;
  Two (2) 900 to 1,200 gpm Flow Equalization/Recycle Pumps to transfer equalized flow from the SAM Basin to the MBR treatment system and provide nitrified mixed liquor recycle flow from the MBR to the SAM Basin;
  Two (2) 250 gpm ISAM WAS Pumps; an alum chemical feed system for Total Phosphorus removal; and a Micro-C chemical feed system for Total Nitrogen removal.

- Membrane Bioreactor (MBR) System that consists of the following components:
  A three-stage activated sludge process train split into two (2) hydraulic treatment units having total treatment volumes of: 55,500-gallon Anoxic zone with two (2) submersible mixers,
  74,000-gallon Anoxic-Aeration zone with coarse-bubble diffusers,
  68,700-gallon aeration zone with coarse-bubble diffusers
  eight (8) LEAPmbr™ ultrafiltration cassettes.

two (2) 830 gpm submersible Recycle Pumps that internally recycle nitrified mixed liquor within the MBR System.

Three (3) 550 gpm permeate pumps deliver flow from the ultrafiltration cassettes to the UV Disinfection System. One (1) 100 gpm WAS centrifugal pump delivers waste-activated sludge from the MBR System to the ISAM Anaerobic Basin. Within the ISAM Control Room, four (4) 650 scfm PD blowers supply the MBR System with air for aeration and mixing of the mixed liquor, and scour of the LEAPmbr™ ultrafiltration cassettes.

- The UV Disinfection System is comprised of the following components:

  Two closed vessel, medium pressure, high intensity, ultraviolet disinfection (UV) reactors with a 25,000-gallon contact tank with ultrasonic effluent flow meter.

- The facility produces reclaimed water using a 100,000 gpd Reverse Osmosis (RO) Reclaimed Water System which consists of the following components:

  One (1) 150 gpm RO Feed Pump;

  One (1) In-line Cartridge Filter;

  One (1) 150 gpm High-Pressure RO Feed Pump;

  One (1) 100,000 gpd RO Skid with 400-square feet of membrane filtration area;

  One (1) 120,000-gallon Ground Storage Tank;

  Two (2) 90 gpm Irrigation Pumps; and two (2) 150 gpm I n-plant Reuse Pumps.

- Treated effluent from the UV Disinfection System that is not processed by the RO Water System is conveyed by gravity to six (6) on-site Class 'V' Injection Wells for disposal.

- Digested sludge is processed via a biosolids dewatering bed.

  Two existing sludge drying beds are converted into storage space.

  A filtrate pump station and/or a duplex pump station pump the biosolids filtrate back to the facility headworks

REUSE OR DISPOSAL:

Underground Injection U-001: An existing 0.34 MGD annual average daily flow permitted capacity underground injection well system consisting of six (6) Class V underground injection wells permitted under Department permit number(s) 63994-043 through 63994-048-UO, discharging to Class G-III ground water. Underground Injection Well System U-001 is located approximately at latitude 24°43' 30" N, longitude 81°1' 18" W.

Land Application R-001: An existing 0.099 MGD annual average daily flow permitted capacity slow-rate public access system. R-001 is a reuse system for irrigation of the city parks and golf course. The irrigated area is 15 acres, and the permittee is authorized to use water trucks to distribute reuse water to the parks that do not have a reuse piping system.

IN ACCORDANCE WITH: The limitations, monitoring requirements, and other conditions set forth in this cover sheet and Part I through Part IX on pages 1 through 24 of this permit.

PERMITTEE: City of Key Colony Beach PERMIT NUMBER: FLA014720
FACILITY: City of Key Colony Beach WWTP

I. RECLAIMED WATER AND EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Underground Injection Control Systems

1. During the period beginning on the effective date and lasting through the expiration date of this permit, the permittee is authorized to discharge effluent to Underground Injection Well System U-001 located approximately at latitude 24°43'30", longitude 81°1'18". Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.8:

			Reclaimed Water Condition		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	0.34 Report	Annual Average Monthly Average	5 Days/Week	Recording Flow Meter with Totalizer	FLW-1	See I.A.3
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max	5.0 6.25 10.0	Annual Average Monthly Average Single Sample	Bi-weekly; every 2 weeks	8-hr FPC	EFF-2	
Solids, Total Suspended	mg/L	Max Max Max	20.0 30.0 60.0	Annual Average Monthly Average Single Sample	Bi-weekly; every 2 weeks	8-hr FPC	EFF-2	
Coliform, Fecal	#/100mL	Max Max Max	200 200 800	Annual Average Monthly Geometric Mean Single Sample	Bi-weekly; every 2 weeks	Grab	EFF-2	See I.A.4
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	5 Days/Week	Grab	EFF-2	
Turbidity	NTU	Max	0.5	Single Sample	Continuous	Meter	EFF-2	
Ultraviolet Light Dosage	mW-s/sqcm	Min	50	Single Sample	Continuous	Meter	PPI-1	
Ultraviolet Light Transmittance	percent	Min	65	Single Sample	Continuous	Meter	PPI-1	
Ultraviolet Light Intensity	mW/sqcm	Min	Report	Single Sample	Continuous	Meter	PPI-1	
Nitrogen, Total	mg/L	Max	3.0	Annual Average	Bi-weekly; every 2 weeks	8-hr FPC	EFF-2	
Phosphorus, Total (as P)	mg/L	Max	1.0	Annual Average	Bi-weekly; every 2 weeks	8-hr FPC	EFF-2	

2. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I.A.1. and as described below:

Monitoring Site Number	Description of Monitoring Site
FLW-1	Sum of the reject water flow meter and the injection well flow meter
EFF-2	Before discharge to the Class V injection, after all treatment processes and after blending with the reverse osmosis concentrate.
PPI-1	For UV reactor discharges that to U-001

3. A Recording Flow Meter with Totalizer shall be utilized to measure flow and calibrated at least once every 12 months. *[62-600.200(25)]*

4. The effluent limitation for the monthly geometric mean for fecal coliform is only applicable if 10 or more values are reported. If fewer than 10 values are reported, the monthly geometric mean shall be calculated and reported on the Discharge Monitoring Report to be used to calculate the annual average. All other fecal coliform effluent limitations included in permit condition I.A.1 apply regardless of the number of values reported. *[62-600.440(5)(b)]*

5. To report the "90th percentile,"
   a. Place the bacteria results in ascending order (from lowest to highest value) and assign each sample a number, 1 for the lowest value.
   b. Multiply the total number of samples by 0.9 to determine the 90th percentile level.
   c. Report the value of the sample that corresponds to the 90th percentile level (e.g., 10 samples x 0.9 = 9, report the value of the 9th sample). If the 90th percentile level is not a whole number, rounding or interpolation should be used to determine the 90th percentile. When rounding, round down to the nearest whole number if the decimal is 0.4 or lower, and round up to the nearest whole number if the decimal is 0.5 or higher (e.g., 12 samples x 0.9 = 10.8, report the value of the 11th sample if rounding).

   [62-600.440(5)(a)3]

6. The permittee shall monitor to ensure proper process control in accordance with the operator sampling and testing schedule included in the facility's Operation and Maintenance Manual. This monitoring may be performed using methods other than those in Chapter 62-160, F.A.C., as long as this data is for process control purposes and is not reported on the Discharge Monitoring Report. *[62-620.320(6)]*

B. Reuse and Land Application Systems

1. During the period beginning on the effective date and lasting through the expiration date of this permit, the permittee is authorized to direct reclaimed water to Reuse System R-001. Such reclaimed water shall be limited and monitored by the permittee as specified below and reported in accordance with Permit Condition I.C.8:

			Reclaimed Water Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max	0.099 Report	Annual Average Monthly Average	5 Days/Week	Recording Flow Meter with Totalizer	FLW-3	See I.B.3
BOD, Carbonaceous 5 day, 20C	mg/L	Max Max Max	20.0 30.0 60.0	Annual Average Monthly Average Single Sample	Bi-weekly; every 2 weeks	8-hr FPC	EFF-3	
Solids, Total Suspended	mg/L	Max	5.0	Single Sample	4 Days/Week	Grab	EFF-3	
pH	s.u.	Min Max	6.0 8.5	Single Sample Single Sample	5 Days/Week	Grab	EFF-3	
Turbidity	NTU	Max	Report	Single Sample	Continuous	Meter	EFF-3	See I.B.5
Ultraviolet Light Dosage	mW-s/sqcm	Min	50	Single Sample	Continuous	Meter	PPI-2	
Ultraviolet Light Transmittance	percent	Min	65	Single Sample	Continuous	Meter	PPI-2	
Ultraviolet Light Intensity	mW/sqcm	Max	Report	Single Sample	Continuous	Meter	PPI-2	
Coliform, Fecal, % less than detection	percent	Min	75	Monthly Total	4 Days/Week	Calculated	FLW-3	See I.B.4
Coliform, Fecal	#/100mL	Max	25	Single Sample	4 Days/Week	Grab	EFF-3	
Giardia	cysts/100L	Max	Report	Single Sample	Every 5 years	Grab	EFF-3	See I.B.7
Cryptosporidium	oocysts/100L	Max	Report	Single Sample	Every 5 years	Grab	EFF-3	See I.B.7

2. Reclaimed water samples shall be taken at the monitoring site locations listed in Permit Condition I.A.1. and as described below:

Monitoring Site Number	Description of Monitoring Site
FLW-3	Flow meter for the reverse osmosis permeate.
EFF-3	The permeate discharge from the reverse osmosis system but before the reclaimed water storage tank.
PPI-2	For UV reactor that discharges to R-001

3. A recording flow meter with totalizer shall be utilized to measure flow and calibrated at least once every 12 months. *[62-600.200(25)]*

4. To report the "% less than detection," count the number of fecal coliform observations that were less than detection, divide by the total number of fecal coliform observations in the month, and multiply by 100% (round to the nearest integer). *[62-600.440(6)(a)]*

5. The maximum turbidity shall be limited as described in the approved operating protocol, such that the permit limitations for total suspended solids and fecal coliforms will be achieved. Filtration shall be provided for total suspended solids control. *[62-610.463(2)]*

6. The treatment facilities shall be operated in accordance with all approved operating protocols. Only reclaimed water that meets the criteria established in the approved operating protocol(s) may be released to system storage or to the reuse system. Reclaimed water that fails to meet the criteria in the approved operating protocol(s) shall be directed to the following permitted alternate discharge system: U-001. *[62-610.320(6) and 62-610.463(2)]*

7. Sampling for Giardia and Cryptosporidium shall be conducted at one time during each five-year period. Intervals between sampling shall not exceed five years. The sample results shall be submitted to the Department on or before November 28 of that year using Form 62-610.300(3)(a)4. *[62-610.463(4)]*

C. Other Limitations and Monitoring and Reporting Requirements

1. During the period beginning on the effective date and lasting through the expiration date of this permit, the treatment facility shall be limited and monitored by the permittee as specified below and reported in accordance with condition I.C.8:

			Limitations		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Flow	MGD	Max Max Max	0.34 Report Report	Annual Average Monthly Average 3-Month Rolling Average	5 Days/Week	Recording Flow Meter with Totalizer	FLW-2	See I.C.4
Percent Capacity, (TMADF/Permitted Capacity) x 100	percent	Max	Report	Monthly Average	Monthly	Calculated	CAL-1	
BOD, Carbonaceous 5 day, 20C (Influent)	mg/L	Max	Report	Single Sample	Bi-weekly; every 2 weeks	8-hr FPC	INF-1	See I.C.3
Solids, Total Suspended (Influent)	mg/L	Max	Report	Single Sample	Bi-weekly; every 2 weeks	8-hr FPC	INF-1	See I.C.3

2. Samples shall be taken at the monitoring site locations listed in Permit Condition I.C.1. and as described below:

Monitoring Site Number	Description of Monitoring Site
FLW-2	Sum of the injection well flow meter, the reject flow meter, and the reuse flow meter.
CAL-1	Calculated value based on flow measurement
INF-1	Influent force main's outlet to WWTF

3. Influent samples shall be collected so that they do not contain digester supernatant or return activated sludge, or any other plant process recycled waters. *[62-600.660(4)(a)]*

4. A recording flow meter with totalizer shall be utilized to measure flow and calibrated at least once every 12 months. *[62-600.200(25)]*

5. Sampling results for giardia and cryptosporidium shall be reported on DEP Form 62-610.300(3)(a)4, Pathogen Monitoring, which is attached to this permit. This form shall be submitted to the Department's Wastewater Management Program (M.S. 3545 Blair Stone Road, Tallahassee, Florida 32399-2400 or at epostbwfrdom@floridadep.gov) and to the Department's Southeast District Office. *[62-610.300(4)(a)]*

6. The sample collection, analytical test methods, and method detection limits (MDLs) applicable to this permit shall be conducted using a sufficiently sensitive method to ensure compliance with applicable water quality standards and effluent limitations and shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-600, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantitation limits), which is titled "FAC 62-4 MDL/PQL Table (November 10, 2020)" is available at https://floridadep.gov/dear/quality-assurance/content/quality-assurance-resources. The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:

   a. The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;

   b. The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide an MDL, which is equal to or less than the applicable water quality criteria stated in 62-302, F.A.C.; and

   c. If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

   When the analytical results are below method detection or practical quantitation limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

   Where necessary, the permittee may request approval of alternate methods or for alternative MDLs or PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the above-referenced list is not necessary if the analytical method is approved in accordance with 40 CFR 136 or deemed acceptable by the Department. *[62-4.246, 62-160]*

7. The permittee shall provide safe access points for obtaining representative samples which are required by this permit. *[62-600.650(2)]*

8. Monitoring requirements under this permit are effective on the first day of the second month following the effective date of the permit. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e. monthly, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this permit. Unless specified otherwise in this permit, monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below. DMRs shall be submitted for each required monitoring period including periods of no discharge.

REPORT Type on DMR	Monitoring Period	Submit by
Monthly	first day of month - last day of month	28th day of following month
Once Every Two Months	January 1 - February 28/29 March 1 - April 30 May 1 - June 30 July 1 - August 31 September 1 - October 31 November 1 - December 31	March 28 May 28 July 28 September 28 November 28 January 28
Quarterly	January 1 - March 31 April 1 - June 30 July 1 - September 30 October 1 - December 31	April 28 July 28 October 28 January 28
Semiannual	January 1 - June 30 July 1 - December 31	July 28 January 28
Annual	January 1 - December 31	January 28

The permittee may submit either paper or electronic DMR forms. If submitting electronic DMR forms, the permittee shall use the electronic DMR system approved by the Department (EzDMR) and shall electronically submit the completed DMR forms using the DEP Business Portal at https://www.fldepportal.com/go/. Reports shall be submitted to the Department by the twenty-eighth (28th) of the month following the month of operation. Data submitted in electronic format is equivalent to data submitted on signed and certified paper DMR forms.

If submitting paper DMR forms, the permittee shall make copies of the attached DMR forms, without altering the original format or content unless approved by the Department, and shall mail the completed DMR forms to the Department's Southeast District Office at the address specified in Permit Condition I.C.14. by the twenty-eighth (28th) of the month following the month of operation.

[62-620.610(18)][62-600.680(1)]

9. During the period of operation authorized by this permit, reclaimed water or effluent shall be monitored annually for the primary and secondary drinking water standards contained in Chapter 62-550, F.A.C., and the Revised Total Coliform Rule contained in Rule 62-550.830, F.A.C., (except for asbestos, color, odor, and residual disinfectants). These monitoring results shall be reported to the Department annually on the DMR. During years when a permit is not renewed, a certification stating that no new non-domestic wastewater dischargers have been added to the collection system since the last reclaimed water or effluent analysis was conducted may be submitted with the signed DMR in lieu of performing the analysis. When such a certification is submitted with the DMR, monitoring not required this period should be noted on the DMR. The annual reclaimed water or effluent analysis report, and certification if applicable, shall be completed and submitted in a timely manner so as to be received by the Department at the address identified on the DMR by January 28 of each year. Approved analytical methods identified in Rule 62-620.100(3)(j), F.A.C., shall be used for the analysis. If no method is included for a parameter, methods specified in Chapter 62-550, F.A.C., shall be used. *[62-600.660(2) and (3)(d)][62-600.680(2)][62-610.300(3)]*

10. The permittee shall submit DEP Form 62-610.300(3)(a)2., Annual Reuse Report, using DEP Form 62-610.300(4)(a)2. on or before January 1 of each year. to the Department and the appropriate water management district on or before January 1 of each year. The form shall be submitted electronically to the Department using the Online Business Portal (https://www.fldepportal.com/DepPortal/go/home) *[62-610.870(3)(a)]*

11. Operating protocol(s) shall be reviewed and updated periodically to ensure continuous compliance with the minimum treatment and disinfection requirements. Updated operating protocols shall be submitted to the Department's Southeast District Office for review and approval upon revision of the operating protocol(s) and with each permit application. *[62-610.320(6)][62-610.463(2)]*

12. The permittee shall maintain an inventory of storage systems. The most recent inventory shall be submitted each year with the Annual Reuse Report. At least 30 days before reclaimed water will be introduced into any new storage system, the updated inventory shall be submitted to the Department's Southeast District Office. The inventory shall include the following:

    a. name or identifier for the storage system;

    b. location of the storage system (latitude/longitude);

    c. function of the storage system (system storage or reject storage);

    d. type of facility (covered tank, lined pond, unlined pond);

    e. Indication of whether or not the storage facility is a water of the state or discharges to a water of the state; and

    f. distances to the nearest public water supply wells and to the nearest potable water supply wells which are not public water supply wells.

    [62-610.464(5) and 62-610.870(3)(d)]

13. The permittee of a publicly owned facility shall submit an annual report regarding transactions or allocations of costs and expenditures on pollution mitigation among the utility's permitted wastewater systems, including the prevention of sanitary sewer overflows, collection and transmission system pipe leakages, and inflow and infiltration. This report may be combined with the annual report for the permittee's collection system action plan once Rule 62-600.705, F.A.C., becomes effective. The report shall be electronically submitted to the district office no later than June 30 of each calendar year. *[62-600.700(4)]*

14. Unless specified otherwise in this permit, all reports and other information required by this permit, including 24-hour notifications, shall be submitted to or reported to, as appropriate, the Department's Southeast District Office at the address specified below:

    Florida Department of Environmental Protection
    Southeast District
    3301 Gun Club Road, MSC 7210-1
    West Palm Beach, Florida 33406-3007

    Phone Number - (561) 681-6600

    (All e-mails (electronic communication) shall be followed by original copies.)

    [62-620.305]

15. All reports and other information shall be signed in accordance with the requirements of Rule 62-620.305, F.A.C. *[62-620.305]*

16. Influent flow proportioned composite samples for $CBOD_5$, total suspended solids, total nitrogen, total phosphorous, total ammonia nitrogen, total kjedahl nitrogen, and total organic nitrogen shall be taken on the same day, and composite periods shall be at the same time of day that the effluent samples are taken. [62-600.650(3)]

II. BIOSOLIDS MANAGEMENT REQUIREMENTS

A. Basic Requirements

1. Biosolids generated by this facility may be transferred to South District WWTP in Miami and/or used as a biofuel or for bioenergy or disposed of in a Class I solid waste landfill. Transferring biosolids to an alternative biosolids treatment facility does not require a permit modification. However, use of an alternative biosolids treatment facility requires submittal of a copy of the agreement pursuant to Rule 62-640.880(1)(c), F.A.C., along with a written notification to the Department at least 30 days before transport of the biosolids. *[62-620.320(6), 62-640.880(1)]*

2. The permittee shall monitor and keep records of the quantities of biosolids generated, received from source facilities, treated, distributed and marketed, land applied, used as a biofuel or for bioenergy, transferred to another facility, or landfilled. These records shall be kept for a minimum of five years. *[62-640.650(4)(a)]*

3. Biosolids quantities shall be monitored by the permittee as specified below. Results shall be reported on the permittee's Discharge Monitoring Report for Monitoring Group RMP-Q in accordance with Condition 8.

			Biosolids Limitation		Monitoring Requirements			
Parameter	Units	Max. /Min	Limit	Statistical Basis	Frequency of Analysis	Sample Type	Monitoring Site Number	Notes
Biosolids Quantity (Transferred)	dry tons	Max	Report	Monthly Total	Monthly	Calculated	RMP-01	
Biosolids Quantity (Landfilled)	dry tons	Max	Report	Monthly Total	Monthly	Calculated	RMP-02	
Biosolids Quantity (Used as a Biofuel or for Bioenergy)	dry tons	Max	Report	Monthly Total	Monthly	Calculated	RMP-03	

[62-640.650(5)(a)1]

4. Biosolids quantities shall be calculated as listed in Permit Condition II.A.3 and as described below:

Monitoring Site Number	Description of Monitoring Site Calculations
RMP-01	(3.75 x estimated gallons biosolids x 8.34) divided by (1,000,000)) equals dry tons of biosolids
RMP-02	(3.75 x estimated gallons biosolids x 8.34) divided by (1,000,000)) equals dry tons of biosolids
RMP-03	(3.75 x estimated gallons biosolids x 8.34) divided by (1,000,000)) equals dry tons of biosolids

5. The treatment, management, transportation, use, land application, or disposal of biosolids shall not cause a violation of the odor prohibition in subsection 62-296.320(2), F.A.C. *[62-640.400(6)]*

6. Storage of biosolids or other solids at this facility shall be in accordance with the Facility Biosolids Storage Plan. *[62-640.300(4)]*

7. Biosolids shall not be spilled from or tracked off the treatment facility site by the hauling vehicle. *[62-640.400(9)]*

B. Disposal

1. Disposal of biosolids, septage, and "other solids" in a solid waste disposal facility, or disposal by placement on land for purposes other than soil conditioning or fertilization, such as at a monofill, surface impoundment, waste pile, or dedicated site, shall be in accordance with Chapter 62-701, F.A.C. *[62-640.100(6)(b) & (c)]*

C. Incineration or Conversion to Biofuel for Bioenergy

1. Incineration or use of biosolids as a biofuel or for bioenergy by gasification shall be in accordance with Chapters 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C., and the Resource Conservation and Recovery Act. *[62-640.100(6)(d)]*

D. Transfer

1. The permittee shall not be held responsible for treatment and management violations that occur after its biosolids have been accepted by a permitted biosolids treatment facility with which the source facility has an agreement in accordance with subsection 62-640.880(1)(c), F.A.C., for further treatment, management, or disposal. *[62-640.880(1)(b)]*

2. The permittee shall keep hauling records to track the transport of biosolids between the facilities. The hauling records shall contain the following information:

Source Facility
1. Date and time shipped
2. Amount of biosolids shipped
3. Degree of treatment (if applicable)
4. Name and ID Number of treatment facility
5. Signature of responsible party at source facility
6. Signature of hauler and name of hauling firm

Biosolids Treatment Facility or Treatment Facility
1. Date and time received
2. Amount of biosolids received
3. Name and ID number of source facility
4. Signature of hauler
5. Signature of responsible party at treatment facility

A copy of the source facility hauling records for each shipment shall be provided upon delivery of the biosolids to the biosolids treatment facility or treatment facility. The treatment facility permittee shall report to the Department within 24 hours of discovery any discrepancy in the quantity of biosolids leaving the source facility and arriving at the biosolids treatment facility or treatment facility.

[62-640.880(4)]

E. Receipt

1. If the permittee intends to accept biosolids from other facilities, a permit revision is required pursuant to paragraph 62-640.880(2)(d), F.A.C. *[62-640.880(2)(d)]*

III. GROUND WATER REQUIREMENTS

A. Construction Requirements

1. The permittee shall give at least 72-hour notice to the Department's Southeast District Office, prior to the installation of any monitoring wells. *[62-520.600(6)(h)]*

2. Before construction of new ground water monitoring wells, a soil boring shall be made at each new monitoring well location to properly determine monitoring well specifications such as well depth, screen interval, screen slot, and filter pack. *[62-520.600(6)(g)]*

3. Within 30 days after installation of a monitoring well, the permittee shall submit to the Department's Southeast District Office well completion reports and soil boring/lithologic logs on the attached DEP Form(s) 62-520.900(3), Monitoring Well Completion Report. *[62-520.600(6)(j) and .900(3)]*

4. All piezometers and monitoring wells not part of the approved ground water monitoring plan shall be plugged and abandoned in accordance with Rule 62-532.500(5), F.A.C., unless future use is intended. *[62-532.500(5)]*

B. Operational Requirements

1. For the Part III Public Access system, all ground water quality criteria specified in Chapter 62-520, F.A.C., shall be met at the edge of the zone of discharge. The zone of discharge shall extend horizontally 100 feet from the application site(s) or to the property boundaries, whichever is less, and vertically to the base of the shallow water table aquifer. *[62-520.200(27)] [62-520.465]*

2. The ground water minimum criteria specified in Rule 62-520.400 F.A.C., shall be met within the zone of discharge. *[62-520.400 and 62-520.420(4)]*

3. If the concentration for any constituent listed in Permit Condition III.B.6. in the natural background quality of the ground water is greater than the stated maximum, or in the case of pH is also less than the minimum, the representative background quality shall be the prevailing standard. *[62-520.420(2)]*

4. During the period of operation authorized by this permit, the permittee shall continue to sample ground water at the monitoring wells identified in Permit Condition III.B.5., below in accordance with this permit and the approved ground water monitoring plan prepared in accordance with Rule 62-520.600, F.A.C. *[62-520.600] [62-610.463]*

5. The following monitoring wells shall be sampled for Reuse System R-001.

Monitoring Well ID	Alternate Well Name and/or Description of Monitoring Location	Latitude	Longitude	Depth (Feet)	Aquifer Monitored	Well Type	New or Existing
MWI-22011	KCB-1 (INTERMEDIATE WELL)	24°43' 26"	81°1' 18"	21	Surficial	Intermediate	Existing

[62-520.600] [62-610.463]

6. The following parameters shall be analyzed for each monitoring well identified in Permit Condition III.B.5.:

Parameter	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Water Level Relative to NGVD	Report	ft	In Situ	Quarterly
Nitrogen, Nitrate, Total (as N)	10	mg/L	Grab	Quarterly
Solids, Total Dissolved (TDS)	500	mg/L	Grab	Quarterly
pH	6.5-8.5	s.u.	In Situ	Quarterly
Phosphorus, Total (as P)	Report	mg/L	Grab	Quarterly
Coliform, Fecal	4	#/100mL	Grab	Quarterly
Nitrogen, Kjeldahl, Total (as N)	Report	mg/L	Grab	Quarterly
Turbidity	Report	NTU	Grab	Quarterly
Specific Conductance	Report	umhos/cm	Grab	Quarterly
Temperature (C), Water	Report	Deg C	Grab	Quarterly

[62-520.600(11)(b)] [62-600.670] [62-600.650(3)] [62-520.310(5)]

7. Water levels shall be recorded before evacuating each well for sample collection. Elevation references shall include the top of the well casing and land surface at each well site (NAVD allowable) at a precision of plus or minus 0.01 foot. *[62-520.600(11)(c)] [62-610.463(3)(a)]*

8. Ground water monitoring wells shall be purged prior to sampling to obtain representative samples. *[62-160.210] [62-600.670(3)]*

9. Analyses shall be conducted on unfiltered samples, unless filtered samples have been approved by the Department's Southeast District Office as being more representative of ground water conditions. *[62-520.310(5)]*

10. Ground water monitoring test results shall be submitted on Part D of Form 62-620.910(10) in accordance with Permit Condition I.C.8. *[62-520.600(11)(b)] [62-600.670] [62-600.680(1)] [62-620.610(18)]*

11. If any monitoring well becomes inoperable or damaged to the extent that sampling or well integrity may be affected, the permittee shall notify the Department's Southeast District Office within two business days from discovery, and a detailed written report shall follow within ten days after notification to the Department. The written report shall detail what problem has occurred and remedial measures that have been taken to prevent recurrence or request approval for replacement of the monitoring well. All monitoring well design and replacement shall be approved by the Department's Southeast District Office before installation. *[62-520.600(6)(l)]*

IV. ADDITIONAL REUSE AND LAND APPLICATION REQUIREMENTS

A. Part III Public Access System(s)

1. This reuse system includes the following major user(s) of reclaimed water (i.e., using 0.1 MGD or more) and general service area(s):

Site Number	User Name	User Type	Capacity(MGD)	Acreage
PAA-001	City of Key Colony Beach Golf Course and Park Land	Golf Courses	0.099	15
		Total	0.099	15

[62-610.800(5)][62-620.630(10)(b)]

2. Cross-connections to the potable water system are prohibited. *[62-610.469(7)]*

3. A cross-connection control program shall be implemented and/or remain in effect within the areas where reclaimed water will be provided for use and shall be in compliance with the Rule 62-555.360, F.A.C. *[62-610.469(7)]*

4. The permittee shall conduct inspections within the reclaimed water service area to verify proper connections, to minimize illegal cross-connections, and to verify both the proper use of reclaimed water and that the proper backflow prevention assemblies or devices have been installed and tested. Inspections are required when a customer first connects to the reuse distribution system. Subsequent inspections are required as specified in the cross-connection control and inspection program. *[62-610.469(7)(h)]*

5. If an actual or potential (e.g. no dual check device on residential connections served by a reuse system) cross-connection between the potable and reclaimed water systems is discovered, the permittee shall:

   a. Immediately discontinue potable water and/or reclaimed water service to the affected area if an actual cross-connection is discovered.

   b. If the potable water system is contaminated, clear the potable water lines.

   c. Eliminate the cross-connection and install a backflow prevention device as required by the Rule 62-555.360.F.A.C.

   d. Test the affected area for other possible cross-connections.

   e. Within 24 hours, notify the Department's Southeast District Office's domestic wastewater and drinking water programs.

   f. Within 5 days of discovery of an actual or potential cross-connection, submit a written report to the Department's Southeast District Office detailing: a description of the cross-connection, how the cross-connection was discovered, the exact date and time of discovery, approximate time that the cross-connection existed, the location, the cause, steps taken to eliminate the cross-connection, whether reclaimed

water was consumed, and reports of possible illness, whether the drinking water system was contaminated and the steps taken to clear the drinking water system, when the cross-connection was eliminated, plan of action for testing for other possible cross-connections in the area, and an evaluation of the cross-connection control and inspection program to ensure that future cross-connections do not occur.

[62-555.360][62-620.610(20)]

6. Maximum obtainable separation of reclaimed water lines and potable water lines shall be provided and the minimum separation distances specified in Rule 62-610.469(7), F.A.C., shall be provided. Reuse facilities shall be color coded or marked. Underground piping which is not manufactured of metal or concrete shall be color coded using Pantone Purple 522C using light stable colorants. Underground metal and concrete pipe shall be color coded or marked using purple as the predominant color. *[62-610.469(7)]*

7. In constructing reclaimed water distribution piping, the permittee shall maintain a 75-foot setback distance from a reclaimed water transmission facility to public water supply wells. No setback distances are required to other potable water supply wells or to any nonpotable water supply wells. *[62-610.471(3)]*

8. A setback distance of 75 feet shall be maintained between the edge of the wetted area and potable water supply wells, unless the utility adopts and enforces an ordinance prohibiting potable water supply wells within the reuse service area. No setback distances are required to any nonpotable water supply well, to any surface water, to any developed areas, or to any private swimming pools, hot tubs, spas, saunas, picnic tables, barbecue pits, or barbecue grills. *[62-610.471(1), (2), (5), and (7)]*

9. Reclaimed water shall not be used to fill swimming pools, hot tubs, or wading pools. *[62-610.469(4)]*

10. Low trajectory nozzles, or other means to minimize aerosol formation shall be used within 100 feet from outdoor public eating, drinking, or bathing facilities. *[62-610.471(6)]*

11. A setback distance of 100 feet shall be maintained from indoor aesthetic features using reclaimed water to adjacent indoor public eating and drinking facilities. *[62-610.471(8)]*

12. The public shall be notified of the use of reclaimed water. This shall be accomplished by posting of advisory signs in areas where reuse is practiced, notes on scorecards, or other methods. *[62-610.468(2)]*

13. All new advisory signs and labels on vaults, service boxes, or compartments that house hose bibbs along with all labels on hose bibbs, valves, and outlets shall bear the words "do not drink" and "no beber" along with the equivalent standard international symbol. In addition to the words "do not drink" and "no beber," advisory signs posted at storage ponds and decorative water features shall also bear the words "do not swim" and "no nadar" along with the equivalent standard international symbols. Existing advisory signs and labels shall be retrofitted, modified, or replaced in order to comply with the revised wording requirements. For existing advisory signs and labels this retrofit, modification, or replacement shall occur within 365 days after the date of this permit. For labels on existing vaults, service boxes, or compartments housing hose bibbs this retrofit, modification, or replacement shall occur within 730 days after the date of this permit. *[62-610.468, 62-610.469]*

14. The permittee shall ensure that users of reclaimed water are informed about the origin, nature, and characteristics of reclaimed water; the manner in which reclaimed water can be safely used; and limitations on the use of reclaimed water. Notification is required at the time of initial connection to the reclaimed water distribution system and annually after the reuse system is placed into operation. A description of on-going public notification activities shall be included in the Annual Reuse Report. *[62-610.468(6)]*

15. Routine aquatic weed control and regular maintenance of storage pond embankments and access areas are required. *[62-610.414(8)]*

16. Overflows from emergency discharge facilities on storage ponds shall be reported as abnormal events in accordance with Permit Condition IX.20. *[62-610.800(9)]*

17. Requirements for system storage pond capacity shall be as contained in Rule 62-610.414, F.A.C. System storage capacity shall be the volume equal to three times that portion of the average daily flow of the total reuse capacity for which no alternative reuse or disposal system is permitted. *[62-610.414, 62-610.464 (2)]*

18. A separate, off-line system for storage of reject water shall be provided unless another permitted reuse system or effluent disposal system is capable of discharging the reject water in accordance with requirements of Chapter 62-600, F.A.C. At a minimum this capacity shall be the volume equal to one day flow at the average daily design flow of the treatment plant or the average daily permitted flow of the reuse system, whichever is less. *[62-610.464(3)]*

19. If reclaimed water will be used only for toilet flushing, the Department shall approve alternate levels of reliability, operation controls, and operator attendance if the applicant provides an affirmative demonstration in the engineering report that alternative controls will provide controls on reclaimed water production equivalent to the full requirements of Part III of this chapter, and the engineering report presents reasonable assurances that public health will be protected. The engineering report shall document cross-connection control measures and controls on facility operation sufficient to ensure reliable production of reclaimed water of suitable quality. *[62-610.476(1)(a)]*

20. If reclaimed water will be used only for fire protection, the Department shall approve alternative levels of reliability, operation controls, and operator attendance if the applicant provides an affirmative demonstration in the engineering report that alternative controls will provide controls on reclaimed water production equivalent to the full requirements of Part III of this chapter, and the engineering report presents reasonable assurances that public health will be protected. The engineering report shall document cross-connection control measures and controls on facility operation sufficient to ensure reliable production of reclaimed water of suitable quality. *[62-610.476(2)(b)]*

V. OPERATION AND MAINTENANCE REQUIREMENTS

A. Staffing Requirements

1. During the period of operation authorized by this permit, the wastewater facilities shall be operated under the supervision of one or more operators certified in accordance with Chapter 62-602, F.A.C. In accordance with Chapter 62-699, F.A.C., this facility is a Category I, Class C facility and, at a minimum, operators with appropriate certification must be on the site as follows:

   A Class C or higher operator 6 hours/day for 5 days/week and one visit on each weekend day. The lead/chief operator must be a Class C operator, or higher. *[62-620.630(3)][62-699.310] [62-610.462]*

   An operator meeting the lead/chief operator class for the plant shall be available during all periods of plant operation. "Available" means able to be contacted as needed to initiate the appropriate action in a timely manner. *[62-699.311(1)]*

B. Capacity Analysis Report and Operation and Maintenance Performance Report Requirements

1. The application to renew this permit shall include an updated capacity analysis report prepared in accordance with Rule 62-600.405, F.A.C. *[62-600.405(5)]*

2. The application to renew this permit shall include a detailed operation and maintenance performance report prepared in accordance with Rule 62-600.735, F.A.C. *[62-600.735(1)]*

C. Recordkeeping Requirements

1. The permittee shall maintain the following records and make them available for inspection at the following address: on the site of the permitted facility.

a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;

b. Copies of all reports required by this permit for at least three years from the date the report was prepared;

c. Records of all data, including reports and documents, used to complete the application for this permit for at least three years from the date the application was filed;

d. Monitoring information, including a copy of the laboratory certification showing the laboratory certification number, related to the residuals use and disposal activities for the time period set forth in Chapter 62-640, F.A.C., for at least three years from the date of sampling or measurement;

e. A copy of the current wastewater facility permit;

f. Copies of the current operation and maintenance manuals for the wastewater facility and the collection/transmission systems owned or operated by the wastewater facility permittee as required by Chapters 62-600 and 62-604, F.A.C.;

g. A copy of any required record drawings for the wastewater facility and the collection/transmission systems owned or operated by the wastewater facility permittee;

h. Copies of the licenses of the current certified operators;

i. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules. The logs shall, at a minimum, include identification of the plant; the signature and license number of the operator(s) and the signature of the person(s) making any entries; date and time in and out; specific operation and maintenance activities, including any preventive maintenance or repairs made or requested; results of tests performed and samples taken, unless documented on a laboratory sheet; and notation of any notification or reporting completed in accordance with Rule 62-602.650(3), F.A.C. The logs shall be maintained on-site in a location accessible to 24-hour inspection, protected from weather damage, and current to the last operation and maintenance performed; and

j. Records of biosolids quantities, treatment, monitoring, and hauling for at least five years.

[62-620.350, 62-604.500, 62-602.650, 62-640.650(4)]

VI. SCHEDULES

1. The permittee is not authorized to discharge to waters of the state after the expiration date of this permit, unless:

   a. The permittee has applied for renewal of this permit at least 180 days before the expiration date of this permit using the appropriate forms listed in Rule 62-620.910, F.A.C., and in the manner established in the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.; or

   b. The permittee has made complete the application for renewal of this permit before the permit expiration date.

   [62-620.335(1)-(4)]

VII. INDUSTRIAL PRETREATMENT PROGRAM REQUIREMENTS

1. This facility is not required to have a pretreatment program at this time. *[62-625.500]*

VIII. OTHER SPECIFIC CONDITIONS

1. In the event that the wastewater facilities or equipment, including collection/transmission systems, no longer function as intended, are no longer safe in terms of public health and safety (including inactive or abandoned facilities), or odor, noise, aerosol drift, or lighting adversely affects neighboring developed areas at the levels

prohibited by paragraphs 62-600.400(2)(a) and 62-604.400(2)(c), F.A.C., corrective action (which may include additional maintenance or modifications of the permitted facilities) shall be taken by the permittee. Other corrective action may be required to ensure compliance with rules of the Department. Additionally, the treatment, management, use or land application of residuals shall not cause a violation of the odor prohibition in subsection 62-296.320(2), F.A.C. *[62-600.410(5), 62-604.500(3) and 62-640.400(6)]*

2. All collection/transmission systems shall be operated and maintained to provide uninterrupted service. All pump stations shall be operated and maintained to provide the emergency pumping capability requirements in paragraph 62-604.400(2)(a), F.A.C., the lightning and transient voltage surge protections in paragraph 62-604.400(2)(b), F.A.C., and the design and signage requirements in paragraph 62-604.400(2)(d), F.A.C. Also, all equipment, pipes, manholes, pump stations, and other appurtenances necessary for the collection/transmission of domestic wastewater, including equipment provided pursuant to subsection 62-604.400(2), F.A.C., shall be maintained to function as intended. *[62-604.500(2) and (3)]*

3. The permittee shall evaluate and update the emergency response plan portion of the collection system operation and maintenance manual annually. The emergency response plan shall assess collection system security including cybersecurity; water quality monitoring for sanitary sewer overflows affecting surface waters; and hurricane and severe storm preparedness and response. *[62-604.500(4)]*

4. Collection/transmission systems shall be maintained to minimize excessive infiltration and inflow into the collection/transmission system, as well as excessive leakage from the collection/transmission system. The permittee shall take corrective actions when infiltration, inflow, or leakage is excessive. Infiltration and inflow are considered excessive if one or both cause or contribute to sanitary sewer overflows. Leakage, or exfiltration, is considered excessive if it causes or contributes to a violation of surface water quality standards or ground water quality standards. *[62-604.500(5)]*

5. All collection/transmission systems shall be operated and maintained to prevent sanitary sewer overflows. The permittee shall evaluate the cause of all sanitary sewer overflows and evaluate potential corrective measures to avoid future sanitary sewer overflows. Corrective actions shall be taken by the permittee if excessive inflow and infiltration causes or contributes to a sanitary sewer overflow. The owner/operator of a satellite collection system shall take corrective actions for a sanitary sewer overflow in the receiving collection system caused by excessive inflow and infiltration in the satellite collection system. *[62-604.500(6)]*

6. The deliberate introduction of stormwater in any amount into collection/transmission systems designed solely for the introduction (and conveyance) of domestic/industrial wastewater; or the deliberate introduction of stormwater into collection/transmission systems designed for the introduction or conveyance of combinations of storm and domestic/industrial wastewater in amounts which may reduce the efficiency of pollutant removal by the treatment plant is prohibited, except as provided by Rule 62-610.472, F.A.C. *[62-604.130(4)]*

7. Cross-connection, as defined in Rule 62-550.200, F.A.C., between the wastewater facility, including the collection/transmission system, and a potable water system is prohibited. *[62-550.360][62-604.130(3)]*

8. The collection/transmission operation and maintenance manual shall be maintained and revised periodically in accordance with subsection 62-604.500(4), F.A.C., to reflect any alterations performed or to reflect experience resulting from operation. However, a new operation and maintenance manual is not required to be developed for each project if there is already an existing manual that is applicable to the facilities being constructed. *[62-604.500(4)]*

9. Collection/transmission system overflows shall be reported to the Department in accordance with Permit Condition IX. 20. *[62-604.550] [62-620.610(20)]*

10. The operating authority of a collection/transmission system and the permittee of a treatment plant are prohibited from accepting connections of wastewater discharges which have not received necessary pretreatment or which contain materials or pollutants (other than normal domestic wastewater constituents):

    a. Which may cause fire or explosion hazards; or

b. Which may cause excessive corrosion or other deterioration of wastewater facilities due to chemical action or pH levels; or

c. Which are solid or viscous and obstruct flow or otherwise interfere with wastewater facility operations or treatment; or

d. Which result in the wastewater temperature at the introduction of the treatment plant exceeding 40°C or otherwise inhibiting treatment; or

e. Which result in the presence of toxic gases, vapors, or fumes that may cause worker health and safety problems.

[62-604.130(5)]

11. The treatment facility, storage ponds for Part II systems, rapid infiltration basins, and/or infiltration trenches shall be enclosed with a fence or otherwise provided with features to discourage the entry of animals and unauthorized persons. *[62-600.400(2)(b)]*

12. Screenings and grit removed from the wastewater facilities shall be collected in suitable containers and hauled to a Department approved Class I landfill or to a landfill approved by the Department for receipt/disposal of screenings and grit. *[62-701.300(1)(a)]*

13. Where required by Chapter 471 or Chapter 492, F.S., applicable portions of reports that must be submitted under this permit shall be signed and sealed by a professional engineer or a professional geologist, as appropriate. *[62-620.310(4)]*

14. The permittee shall provide verbal notice to the Department's Southeast District Office as soon as practical after discovery of a sinkhole or other karst feature within an area for the management or application of wastewater, wastewater residuals (sludges), or reclaimed water. The permittee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department's Southeast District Office in a written report within 7 days of the sinkhole discovery. *[62-620.320(6)]*

15. The permittee shall provide notice to the Department of the following:

    a. Any new introduction of pollutants into the facility from an industrial discharger which would be subject to Chapter 403, F.S., and the requirements of Chapter 62-620, F.A.C., if it were directly discharging those pollutants; and

    b. Any substantial change in the volume or character of pollutants being introduced into that facility by a source which was identified in the permit application and known to be discharging at the time the permit was issued.

    Notice shall include information on the quality and quantity of effluent introduced into the facility and any anticipated impact of the change on the quantity or quality of effluent or reclaimed water to be discharged from the facility. If pretreatment becomes necessary, this permit may be modified to require the permittee to develop and implement a local pretreatment program in accordance with the requirements of Chapter 62-625, F.A.C.

[62-620.625(2)]

IX. GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, Florida Statutes. Any permit noncompliance constitutes a violation of Chapter 403, Florida Statutes, and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. *[62-620.610(1)]*

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviations from the approved drawings, exhibits, specifications, or

conditions of this permit constitutes grounds for revocation and enforcement action by the Department. *[62-620.610(2)]*

3. As provided in subsection 403.087(7), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. *[62-620.610(3)]*

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. *[62-620.610(4)]*

5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[62-620.610(5)]*

6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. *[62-620.610(6)]*

7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. *[62-620.610(7)]*

8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. *[62-620.610(8)]*

9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to:

   a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;

   b. Have access to and copy any records that shall be kept under the conditions of this permit;

   c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and

   d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.

   [62-620.610(9)]

10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, F.S., or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. *[62-620.610(10)]*

11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. *[62-620.610(11)]*

12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. *[62-620.610(12)]*

13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. *[62-620.610(13)]*

14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. *[62-620.610(14)]*

15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility or activity and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. *[62-620.610(15)]*

16. The permittee shall apply for a revision to the Department permit in accordance with Rules 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. *[62-620.610(16)]*

17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:

    a. A description of the anticipated noncompliance;

    b. The period of the anticipated noncompliance, including dates and times; and

    c. Steps being taken to prevent future occurrence of the noncompliance.

    [62-620.610(17)]

18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246 and Chapters 62-160, 62-600, and 62-610, F.A.C., and 40 CFR 136, as appropriate.

    a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10), or as specified elsewhere in the permit.

    b. If the permittee monitors any contaminant more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

    c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.

d. Except as specifically provided in Rule 62-160.300, F.A.C., any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). Such certification shall be for the matrix, test method and analyte(s) being measured to comply with this permit. For domestic wastewater facilities, testing for parameters listed in Rule 62-160.300(4), F.A.C., shall be conducted under the direction of a certified operator.

e. Field activities including on-site tests and sample collection shall follow the applicable standard operating procedures described in DEP-SOP-001/01 adopted by reference in Chapter 62-160, F.A.C.

f. Alternate field procedures and laboratory methods may be used where they have been approved in accordance with Rules 62-160.220, and 62-160.330, F.A.C.

[62-620.610(18)]

19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. *[62-620.610(19)]*

20. The permittee shall report to the Department any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; clean up actions taken and status; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. For noncompliance events related to sanitary sewer overflows, bypass events, or unauthorized discharges, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (e.g., sanitary sewer overflow, bypass, unauthorized discharge); type of sanitary sewer overflow structure (e.g., manhole); the discharge location address and latitude/longitude; type of water discharged; discharge volumes and volumes recovered; volume discharged to surface waters and receiving waterbody name; types of human health and environmental impacts of the sanitary sewer overflow, bypass event, or unauthorized discharge (e.g., beach closure); whether the noncompliance was caused by a third party; and whether the noncompliance was related to wet weather. The written submission may be provided electronically using the Department's Business Portal at https://www.fldepportal.com/go/ (via "Submit" followed by "Report" or "Registration/Notification"). Notice required for public notice of pollution under paragraph (d) may be provided together with the written submission using the Business Portal. All noncompliance events related to sanitary sewer overflows or bypass events submitted after September 14, 2021, shall be submitted electronically.

a. The following shall be included as information which must be reported within 24 hours under this condition:

(1) Any unanticipated bypass which causes any reclaimed water or the effluent to exceed any permit limitation or results in an unpermitted discharge,

(2) Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,

(3) Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice; and,

(4) Any unauthorized discharge to surface or ground waters, except for discharges to ground water of reclaimed water meeting Part III or Part V treatment standards under Chapter 62-610, F.A.C.

b. Oral reports as required by this subsection shall be provided as follows:

(1) For unauthorized releases or spills of treated or untreated wastewater reported pursuant to subparagraph (a)4., that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WATCH OFFICE TOLL FREE NUMBER (800)320-0519, as soon as practicable, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Watch Office:

(a) Name, address, and telephone number of person reporting,

(b) Name, address, and telephone number of permittee or responsible person for the discharge,

(c) Date and time of the discharge and status of discharge (ongoing or ceased),

(d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater),

(e) Estimated amount of the discharge,

(f) Location or address of the discharge,

(g) Source and cause of the discharge,

(h) Whether the discharge was contained on-site, and cleanup actions taken to date,

(i) Description of area affected by the discharge, including name of water body affected, if any; and,

(j) Other persons or agencies contacted.

(2) Oral reports, not otherwise required to be provided pursuant to subparagraph (b)1., above, shall be provided to the Department within 24 hours from the time the permittee becomes aware of the circumstances.

c. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department shall waive the written report.

d. In accordance with Section 403.077, F.S., unauthorized releases or spills reportable to the State Watch Office pursuant to subparagraph (b)1. above shall also be reported to the Department within 24 hours from the time the permittee becomes aware of the discharge. The permittee shall provide to the Department information reported to the State Watch Office. Notice of unauthorized releases or spills may be provided to the Department through the Department's Public Notice of Pollution web page at https://floridadep.gov/pollutionnotice or by reporting electronically using the Department's Business Portal at https://www.fldepportal.com/go/ (via "Submit" followed by "Report" or "Registration/Notification").

(1) If, after providing notice pursuant to paragraph (d) above, the permittee determines that a reportable unauthorized release or spill did not occur or that an amendment to the notice is warranted, the permittee may submit a letter to the Department documenting such determination at pollution.notice@floridadep.gov.

(2) If, after providing notice pursuant to paragraph (d) above, the permittee discovers that a reportable unauthorized release or spill has migrated outside the property boundaries of the installation, the permittee must provide an additional notice to the Department that the release has migrated outside the property boundaries within 24 hours after its discovery of the migration outside of the property boundaries.

e. Unless discharged to surface waters, a spill, release, discharge, upset or bypass involving reclaimed water meeting Part III or Part V treatment standards under Chapter 62-610, F.A.C., shall not be considered to endanger health or the environment and shall be reported under subsection (21) of this permit.

[62-620.610(20)] [62-620.100(3)]

21. The permittee shall report all instances of noncompliance not reported under Permit Conditions IX.17., IX.18., or IX.19. of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Permit Condition IX.20. of this permit. *[62-620.610(21)]*

22. Bypass Provisions.

a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment works.

b. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Permit Condition IX.22.c. of this permit.

c. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Permit Condition IX.20. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

d. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Permit Condition IX.22.b.(1) through (3) of this permit.

e. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Permit Condition IX.22.b. through d. of this permit.

[62-620.610(22)]

23. Upset Provisions.

a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee.

(1) An upset does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation.

(2) An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of upset provisions of Rule 62-620.610, F.A.C., are met.

b. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated;

(3) The permittee submitted notice of the upset as required in Permit Condition IX.20. of this permit; and

(4) The permittee complied with any remedial measures required under Permit Condition IX.5. of this permit.

c. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the permittee.

d. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.

[62-620.610(23)]

EXECUTION AND CLERKING

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Norva Blandin, MSEM
Permitting Program Administrator
Southeast District

April 27, 2023
Date

Attachments: DMR, Pathogen Monitoring Report, Fact Sheet

FACT SHEET
FOR
STATE OF FLORIDA DOMESTIC WASTEWATER FACILITY PERMIT

PERMIT NUMBER: FLA014720

FACILITY NAME: City of Key Colony Beach WWTP

FACILITY LOCATION: 600 N. 8th Street, Key Colony Beach, FL 33051-141
Monroe County

NAME OF PERMITTEE: City of Key Colony Beach

PERMIT WRITER: Lyudmila Sokolova

1. SUMMARY OF APPLICATION

a. Chronology of Application

Application Number: FLA014720-020-DW2P

Application Submittal Date: October 19, 2022

b. Type of Facility

Domestic Wastewater Treatment Plant

Ownership Type: Municipal

SIC Code: 4952

c. Facility Capacity

Existing Permitted Capacity:	0.34 mgd Annual Average Daily Flow
Proposed Increase in Permitted Capacity:	0.00 mgd Annual Average Daily Flow
Proposed Total Permitted Capacity:	0.34 mgd Annual Average Daily Flow

d. Description of Wastewater Treatment

The facility is an existing, domestic advanced wastewater treatment (AWT) domestic wastewater treatment facility (WWTF) with reclaimed water public-access treatment capabilities. The permitted capacity is 0.340 million gallons per day (MGD), annual average daily flow (AADF). The facility consists of the following systems:

• Influent Screening System with: one (1) 10- foot static screen with 2 mm screening capabilities; and one (1) emergency- back-up-aluminum-bar rack with 1/4-inch screenings.

• Integrated Surge Anoxic Mixing (ISAM) System that consists of the following components:
One (1) 98,900-gallon Anaerobic Basin;
One (1) Surge and Anoxic Mixing (SAM) Basin (45'-4" x 42'-8") with a jet mixing system comprised of one (1) 1,600gpm Motive Pump and two (2) 240 scfm SAM positive-displacement (PD) blowers;
Two (2) 900 to 1,200 gpm Flow Equalization/Recycle Pumps to transfer equalized flow from the SAM Basin to the MBR treatment system and provide nitrified mixed liquor recycle flow from the MBR to the SAM Basin;

Two (2) 250 gpm ISAM WAS Pumps; an alum chemical feed system for Total Phosphorus removal; and a Micro-C chemical feed system for Total Nitrogen removal.

- Membrane Bioreactor (MBR) System that consists of the following components:
A three-stage activated sludge process train split into two (2) hydraulic treatment units having total treatment volumes of: 55,500-gallon Anoxic zone with two (2) submersible mixers,
74,000-gallon Anoxic-Aeration zone with coarse-bubble diffusers,
68,700-gallon aeration zone with coarse-bubble diffusers
eight (8) LEAPmbr™ ultrafiltration cassettes.
two (2) 830 gpm submersible Recycle Pumps that internally recycle nitrified mixed liquor within the MBR System.

Three (3) 550 gpm permeate pumps deliver flow from the ultrafiltration cassettes to the UV Disinfection System. One (1) 100 gpm WAS centrifugal pump delivers waste-activated sludge from the MBR System to the ISAM Anaerobic Basin. Within the ISAM Control Room, four (4) 650 scfm PD blowers supply the MBR System with air for aeration and mixing of the mixed liquor, and scour of the LEAPmbr™ ultrafiltration cassettes.

- The UV Disinfection System is comprised of the following components:

Two closed vessel, medium pressure, high intensity, ultraviolet disinfection (UV) reactors with a 25,000-gallon contact tank with ultrasonic effluent flow meter.

- The facility produces reclaimed water using a 100,000 gpd Reverse Osmosis (RO) Reclaimed Water System which consists of the following components:

One (1) 150 gpm RO Feed Pump;

One (1) In-line Cartridge Filter;

One (1) 150 gpm High-Pressure RO Feed Pump;

One (1) 100,000 gpd RO Skid with 400-square feet of membrane filtration area;

One (1) 120,000-gallon Ground Storage Tank;

Two (2) 90 gpm Irrigation Pumps; and two (2) 150 gpm I n-plant Reuse Pumps.

- Treated effluent from the UV Disinfection System that is not processed by the RO Water System is conveyed by gravity to six (6) on-site Class 'V' Injection Wells for disposal.
- Digested sludge is processed via a biosolids dewatering bed.

Two existing sludge drying beds are converted into storage space.

A filtrate pump station and/or a duplex pump station pump the biosolids filtrate back to the facility headworks

e. Description of Effluent Disposal and Land Application Sites (as reported by applicant)

Underground Injection U-001: An existing 0.34 MGD annual average daily flow permitted capacity underground injection well system consisting of 6 Class V underground injection wells permitted under Department permit number(s) 63994-043 through 63994-048-UO, discharging to Class G-III ground water. Underground Injection Well System U-001 is located approximately at latitude 24°43' 30" N, longitude 81°1' 18" W.

Land Application R-001: An existing 0.099 MGD annual average daily flow permitted capacity slow-rate public access system. R-001 is a reuse system for irrigation of the city parks and golf course. The irrigated area is 15 acres and the permittee is authorized to use water trucks to distribute reuse water to the parks that do not have a reuse piping system

2. SUMMARY OF SURFACE WATER DISCHARGE

This facility does not discharge to surface waters.

3. BASIS FOR PERMIT LIMITATIONS AND MONITORING REQUIREMENTS

This facility is authorized to discharge reclaimed water to Underground Injection Well System U-001 which consists of 6 Class V injection wells discharging to Class G-III ground water based on the following:

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow	MGD	Max	0.34	Annual Average	62-600.700(2)(b) FAC
		Max	Report	Monthly Average	62-600.700(2)(b) FAC
BOD, Carbonaceous 5 day, 20C	mg/L	Max	5.0	Annual Average	Chapter 99-395, Laws of Florida, Section 6, & 62-600.740(2)(b)1. FAC
		Max	6.25	Monthly Average	Chapter 99-395, Laws of Florida, Section 6, & 62-600.740(2)(b)2. FAC
		Max	10.0	Single Sample	Chapter 99-395, Laws of Florida, Section 6, & 62-600.740(2)(b)4. FAC
Solids, Total Suspended	mg/L	Max	20.0	Annual Average	Chapter 99-395, Laws of Florida, Section 6, & 62-600.740(2)(b)1. FAC
		Max	30.0	Monthly Average	Chapter 99-395, Laws of Florida, Section 6, & 62-600.740(2)(b)2. FAC
		Max	60.0	Single Sample	Chapter 99-395, Laws of Florida, Section 6, & 62-600.740(2)(b)4. FAC
Coliform, Fecal	#/100mL	Max	200	Annual Average	Chapter 99-395, Laws of Florida, Section 6, & 62-600.440(5)(a)1. FAC
		Max	200	Monthly Geometric Mean	Chapter 99-395, Laws of Florida, Section 6, & 62-600.440(5)(a)2. FAC
		Max	800	Single Sample	Chapter 99-395, Laws of Florida, Section 6, & 62-600.440(5)(a)4. FAC
pH	s.u.	Min	6.0	Single Sample	62-600.445 FAC
		Max	8.5	Single Sample	62-600.445 FAC
Turbidity	NTU	Max	0.5	Single Sample	62-600.440(2) FAC
Ultraviolet Light Dosage	mW-s/sqcm	Min	50	Single Sample	62-600.440(2) FAC
Ultraviolet Light Transmittance	percent	Min	65	Single Sample	62-600.440(2) FAC
Ultraviolet Light Intensity	mW/sqcm	Min	Report	Single Sample	62-600.440(2) FAC
Nitrogen, Total	mg/L	Max	3.0	Annual Average	Chapter 99-395, Laws of Florida, Section 6, & 62-600.740(2)(b)1. FAC
Phosphorus, Total (as P)	mg/L	Max	1.0	Annual Average	Chapter 99-395, Laws of Florida, Section 6, & 62-600.740(2)(b)1. FAC

This facility is authorized to direct reclaimed water to Reuse System R-001, a slow-rate public access system, based on the following:

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow	MGD	Max	0.099	Annual Average	62-600.700(2)(b) & 62-610.810(5) FAC
		Max	Report	Monthly Average	62-600.700(2)(b) & 62-610.810(5) FAC
BOD, Carbonaceous 5 day, 20C	mg/L	Max	20.0	Annual Average	62-610.460 & 62-600.420(3)(a)1. FAC
		Max	30.0	Monthly Average	62-610.460 & 62-600.420(3)(a)2. FAC
		Max	60.0	Single Sample	62-610.460 & 62-600.420(3)(a)4. FAC
Solids, Total Suspended	mg/L	Max	5.0	Single Sample	62-610.460(1) & 62-600.440(6)(a)3. FAC
pH	s.u.	Min	6.0	Single Sample	62-600.445 FAC
		Max	8.5	Single Sample	62-600.445 FAC
Turbidity	NTU	Max	Report	Single Sample	62-610.463(2) FAC
Ultraviolet Light Dosage	mW-s/sqcm	Min	50	Single Sample	62-600.440(2) FAC
Ultraviolet Light Transmittance	percent	Min	65	Single Sample	62-600.440(2) FAC
Ultraviolet Light Intensity	mW/sqcm	Max	Report	Single Sample	62-600.440(2) FAC
Coliform, Fecal, % less than detection	percent	Min	75	Minimum Total	62-610.460 & 62-600.440(6)(a)1. FAC
Coliform, Fecal	#/100mL	Max	25	Single Sample	62-610.460 & 62-600.440(6)(a)2. FAC
Giardia	cysts/100L	Max	Report	Single Sample	62-610.463(4) FAC
Cryptosporidium	oocysts/100L	Max	Report	Single Sample	62-610.463(4) FAC
Nitrogen, Total	mg/L	Max	10	Single Sample	BMAP
Phosphorus, Total (as P)	mg/L	Max	6	Annual Average	BMAP

Other Limitations and Monitoring Requirements:

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Flow	MGD	Max	0.34	Annual Average	62-600.700(2)(b) FAC
		Max	Report	Monthly Average	62-600.700(2)(b) FAC
		Max	Report	3-Month Rolling Average	62-600.700(2)(b) FAC
Percent Capacity, (TMADF/Permitted Capacity) x 100	percent	Max	Report	Monthly Average	62-600.405(4) FAC
BOD, Carbonaceous 5 day, 20C (Influent)	mg/L	Max	Report	Single Sample	62-600.660(1) FAC
Solids, Total Suspended (Influent)	mg/L	Max	Report	Single Sample	62-600.660(1) FAC
Monitoring Frequencies and Sample Types	-	-	-	All Parameters	62-600 FAC & 62-699 FAC and/or BPJ of permit writer
Sampling Locations	-	-	-	All Parameters	62-600, 62-610.412, 62-610.463(1), 62-610.568, 62-610.613 FAC and/or BPJ of permit writer

4. IMPAIRMENT STATUS OF RECEIVING WATERS

This facility does not discharge to surface waters. However, the facility is located in WBID 6011B.
The Florida Keys were identified as impaired for nutrients based on "other information" indicating an imbalance in flora or fauna, pursuant to Rule 62-303.450(2), F.A.C. However, it is being placed in category 4b (Reasonable Assurance) and is not being added to the 303(d) List because there is reasonable assurance that it will attain water quality standards due to existing or proposed pollutant control measures.
Limits for monitoring for total nitrogen and total phosphorus are included for Underground Injection Well System U-001, in permit condition in order to provide reasonable assurance that the discharge to ground waters will not cause or contribute to the nutrient impairment in the basin and also to help to existing or proposed pollutant control measures.

5. DISCUSSION OF CHANGES TO PERMIT LIMITATIONS

The current wastewater permit for this facility FLA014720-017-DW2P expires on April 16, 2023.

6. BIOSOLIDS MANAGEMENT REQUIREMENTS

Biosolids generated by this facility may be transferred to Miami-Dade South District WWTF or disposed of in a Class I solid waste landfill.

See the table below for the rationale for the biosolids quantities monitoring requirements.

Parameter	Units	Max/ Min	Limit	Statistical Basis	Rationale
Biosolids Quantity (Transferred)	dry tons	Max	Report	Monthly Total	62-640.650(5)(a)1. FAC
Biosolids Quantity (Landfilled)	dry tons	Max	Report	Monthly Total	62-640.650(5)(a)1. FAC
Biosolids Quantity (Used as a Biofuel or for Bioenergy)	dry tons	Max	Report	Monthly Total	62-640.650(5)(a)1. FAC
Monitoring Frequency		All Parameters			62-640.650(5)(a) FAC

7. GROUND WATER MONITORING REQUIREMENTS

Ground water monitoring requirements have been established in accordance with Chapters 62-520, 532, 610, and 620, F.A.C.

8. PERMIT SCHEDULES

a. The permittee is not authorized to discharge to waters of the state after the expiration date of this permit, unless:

b. The permittee has applied for renewal of this permit at least 180 days before the expiration date of this permit using the appropriate forms listed in Rule 62-620.910, F.A.C., and in the manner established in the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C.; or

c. The permittee has made complete the application for renewal of this permit before the permit expiration date.

[62-620.335(1)-(4)]

9. INDUSTRIAL PRETREATMENT REQUIREMENTS

At this time, the facility is not required to develop an approved industrial pretreatment program. However, the Department reserves the right to require an approved program if future conditions warrant.

10. ADMINISTRATIVE ORDERS (AO) AND CONSENT ORDERS (CO)

This permit is not accompanied by an AO, and the permittee has not entered into a CO with the Department that affects this permit.

11. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

No variances were requested for this facility.

12. THE ADMINISTRATIVE RECORD

The administrative record including application, fact sheet, comments received and additional information is available for public at http://depedms.dep.state.fl.us/Oculus/servlet/login?action=login

13. PROPOSED SCHEDULE FOR PERMIT ISSUANCE

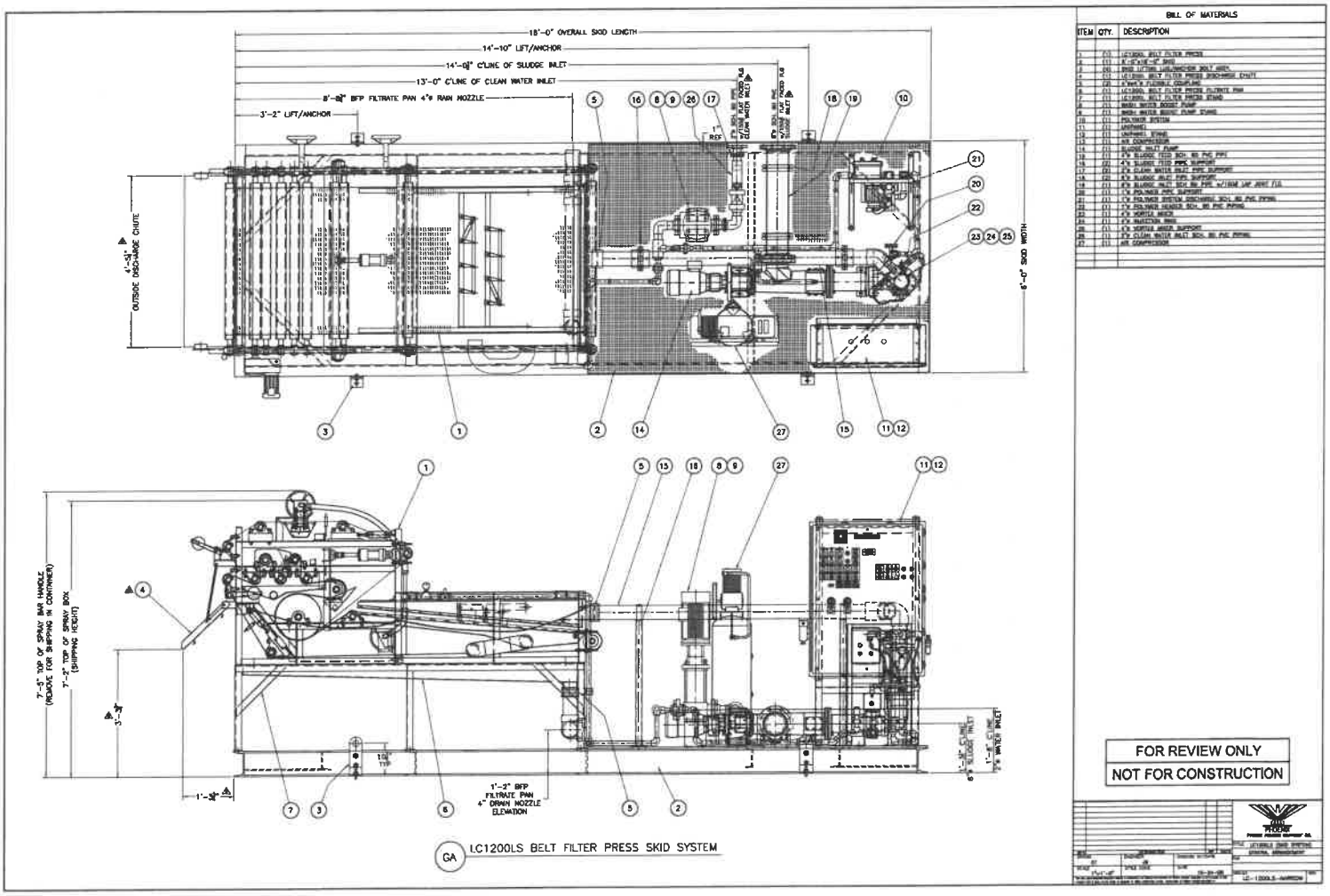
Notice of Permit Issuance April 27, 2023

14. DEP CONTACT

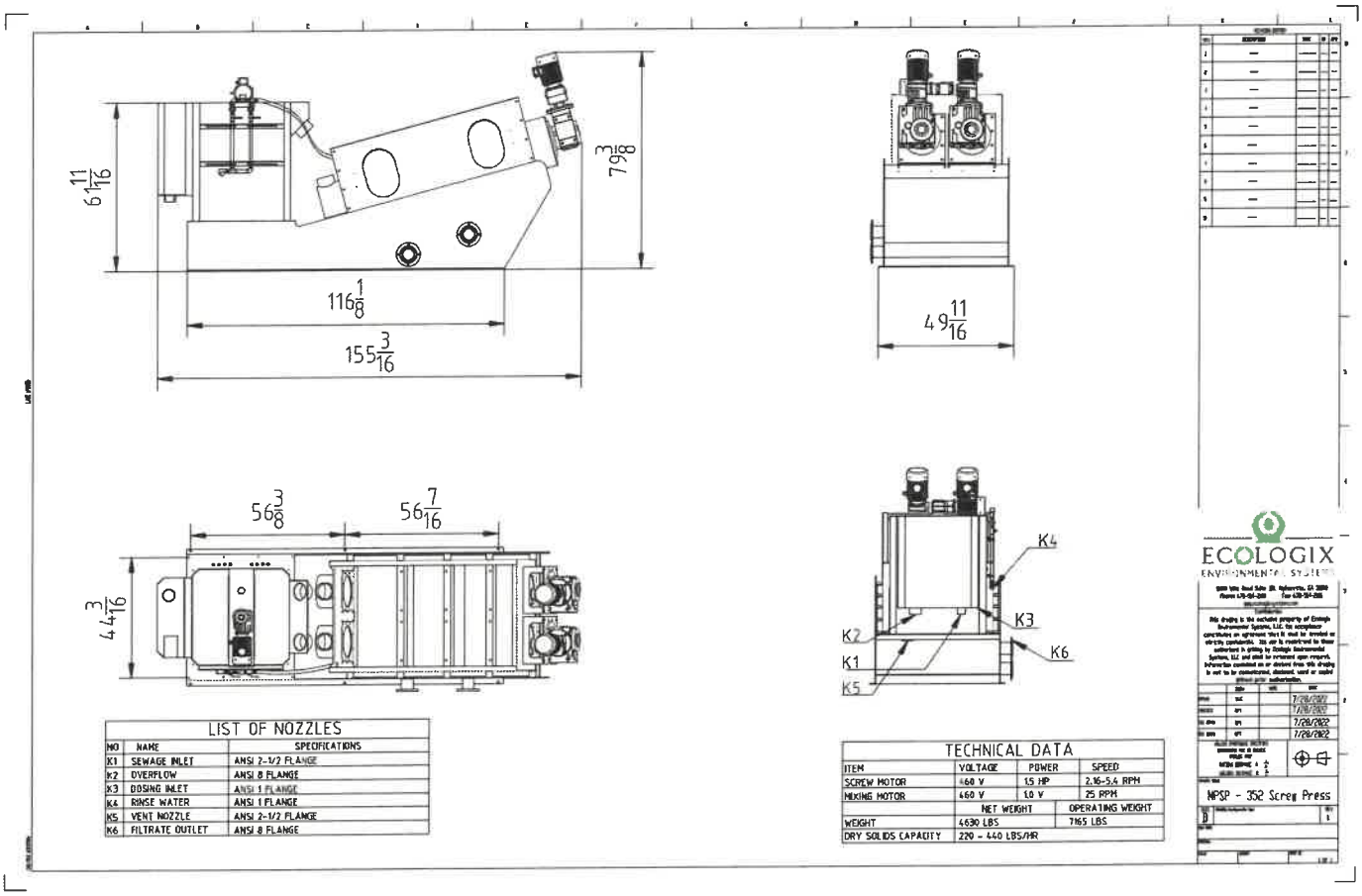
Additional information concerning the permit and proposed schedule for permit issuance may be obtained during normal business hours from:

Lyudmila Sokolova
Engineering Specialist III
Southeast District Office
3301 Gun Club Road, MSC 7210-1
West Palm Beach, FL 33406-3007
Phone: 561-681-6738
Email: Lyudmila.Sokolova@floridadep.gov

Appendix C | Belt Press Conceptual Drawings


18'-0" OVERALL SKID LENGTH
14'-10" LIFT/ANCHOR
14'-0¾" C'LINE OF SLUDGE INLET
13'-0" C'LINE OF CLEAN WATER INLET
8'-8¾" BFP FILTRATE PAN 4"ø RAIN NOZZLE
3'-2" LIFT/ANCHOR
OUTSIDE DISCHARGE CHUTE
6'-0" SKID WIDTH
7'-5" TOP OF SPRAY BAR HANDLE (REMOVE FOR SHIPPING IN CONTAINER)
7'-2" TOP OF SPRAY BOX (SHIPPING HEIGHT)
1'-2" BFP FILTRATE PAN 4" DRAIN NOZZLE ELEVATION
BILL OF MATERIALS
ITEM QTY. DESCRIPTION
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
GA LC1200LS BELT FILTER PRESS SKID SYSTEM

Appendix D | Screw Press Conceptual Drawings

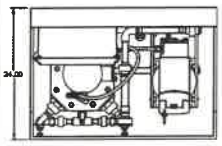


LIST OF NOZZLES		
NO	NAME	SPECIFICATIONS
K1	SEWAGE INLET	ANSI 2-1/2 FLANGE
K2	OVERFLOW	ANSI 8 FLANGE
K3	DOSING INLET	ANSI 1 FLANGE
K4	RINSE WATER	ANSI 1 FLANGE
K5	VENT NOZZLE	ANSI 2-1/2 FLANGE
K6	FILTRATE OUTLET	ANSI 8 FLANGE

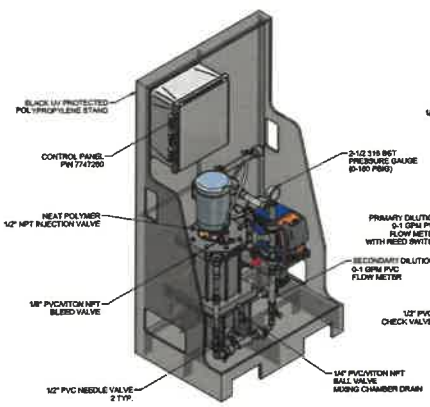
TECHNICAL DATA			
ITEM	VOLTAGE	POWER	SPEED
SCREW MOTOR	460 V	15 HP	2.16-5.4 RPM
MIXING MOTOR	460 V	1.0 V	25 RPM
	NET WEIGHT		OPERATING WEIGHT
WEIGHT	4630 LBS		7165 LBS
DRY SOLIDS CAPACITY	220 - 440 LBS/HR		

ECOLOGIX
ENVIRONMENTAL SYSTEMS

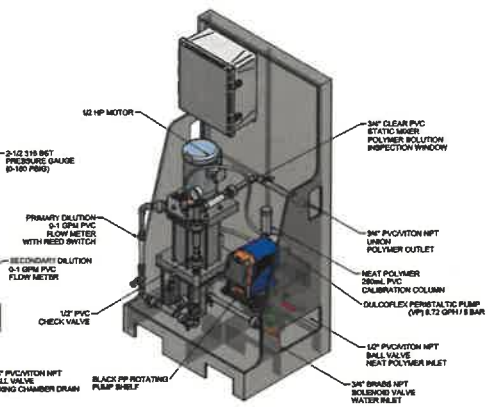
NPSP - 352 Screw Press



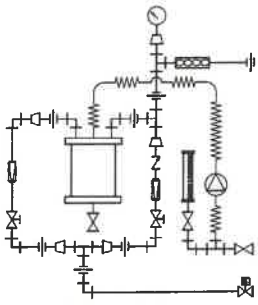
PLAN VIEW



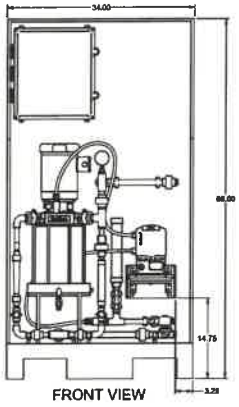
LEFT ISOMETRIC VIEW



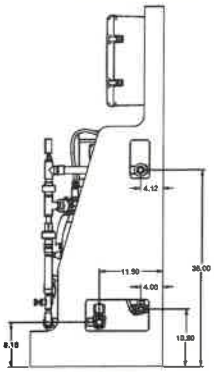
RIGHT ISOMETRIC VIEW



PIPING SCHEMATIC



FRONT VIEW



SIDE VIEW

NOTES:

1. ALL PIPING AND FITTINGS SHALL BE 1/2" AND 3/4" SCH. 80 PVC SOCKET WELD WITH VITON SEALS UNLESS OTHERWISE NOTED.
2. PUMP MAXIMUM CAPACITY RATES BASED UPON PUMPING WATER.
3. POLYMER BLENDING SYSTEM WITH THREE ZONE PVC MIXING CHAMBER.
4. REQUIRED INCOMING POWER:

   120VAC, 1 PHASE, 60Hz, 15 AMP CURRENT RATING AT 120 VAC
5. ALL DIMENSIONS ARE IN INCHES AND ARE SHOWN FOR REFERENCE ONLY.

REVISION HISTORY

REV	DESCRIPTION	DATE	BY	APP
1	—	—	—	—
2	—	—	—	—
3	—	—	—	—
4	—	—	—	—
5	—	—	—	—
6	—	—	—	—
7	—	—	—	—
8	—	—	—	—
9	—	—	—	—
10	—	—	—	—

ECOLOGIX
ENVIRONMENTAL SYSTEMS

11800 Ville Road Suite 110, Alpharetta, GA 30009
Phone: 678-514-2188 Fax: 678-514-2189
www.ecologixsystems.com

This drawing is the exclusive property of Ecologix Environmental Systems, LLC. Its acceptance constitutes an agreement that it shall be treated as strictly confidential. Its use is restricted to those authorized in writing by Ecologix Environmental Systems, LLC and shall be returned upon request. Information contained on or derived from this drawing is not to be communicated, disclosed, used or copied without prior authorization

	SIGN	NAME	DATE
DRAWN		NPT	10/31/2023
CHECKED		NPT	10/31/2023
APPR		NPT	10/31/2023
APPR			10/31/2023

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
ANGLES ±2°
CUTTING DISTANCE ±1/8
BEND DISTANCE ±1/8

Polymer Make Down Unit
Submittal Drawing

SIZE D
DRAWING NUMBER
REV
SCALE N/A
SHEET N/A
SHEET 1 OF 1

CITY OF KEY COLONY BEACH

ADVISORY BOARD & VOLUNTEER COMMITTEE APPLICATION

OFFICE OF THE CITY CLERK
PO BOX 510141
CITY OF KEY COLONY BEACH, FL 33051
TELEPHONE: (305) 289-1212
WEB:

☑ NEW APPLICATION ☐ RE-APPLICATION

☐ BEAUTIFICATION COMMITTEE (2-Year Terms; 5 Members, 2 Alternates)
☐ PLANNING & ZONING BOARD* (2-Year Term; 5 Members, 2 Alternates)
☐ RECREATION COMMITTEE (2-Year Term; 5 Members, 2 Alternates)
☑ UTILITY BOARD* (1-Year Term; 5 Members, 2 Alternates)

*These boards are subject to Financial Disclosure.

Name: TAYLOR (Last) TERRY (First) GREGORY (Middle)

Address: [redacted]

KEY COLONY BEACH, FL. 33051

Mailing Address (if different): _____

Business Address: _____

Occupation: RETIRED, BUSINESS OWNER, UTILITY INDUSTRY

Home/Cell Ph.: [redacted]

E-mail: [redacted]

Do you reside within the City limits? ☑ Yes ☐ No

- If yes, how long have you resided in the City of Key Colony Beach? 2 YEARS

Do you own property in the City of Key Colony Beach? ☑ Yes ☐ No

Are you a Registered Voter in the City of Key Colony Beach? ☑ Yes ☐ No

Please rank your board preference(s): 1. UTILITY
2. PLANNING & ZONING
3. BEAUTIFICATION / RECREATION

Have you ever served on a volunteer board or in a volunteer capacity before? ☐ Yes ☑ No

If yes, please indicate name of board and dates of service. _____

Why would you like to serve on this board? To provide our COMMUNITY the SUPPORT AND ~~WITH~~ THE EXPERIENCE THAT ASSURES the STABILITY AND INTEGRITY FOR OUR FUTURE.

What special skills would you bring to this position? AS AN AGGRESSIVE ENTREPRENEUR I HAVE PROVIDED YEARS OF EXPERIENCE IN THE COMMUNICATION AND UTILITES INDUSTRY. (FOUNDED 4 SUCCUSSFUL COMPANIES)

Please list fields of work experience: ELECTRIC ENGINEERING (SOLAR, BATTERIES) SERVED AS PRESIDENT - DIRECT POWER, INC / DS GROUP HOLDINGS OVER 20 YEARS,

List any licenses and/or degrees (optional): _____

BC LICENSE - SURRENDERED UPON SELL OF BUSINESSES

Local References (Please list 3):

1. JERRY ONG (11TH STREET)
2. BRIAN MC MAHON (11TH STREET)
3. KIRK DIEHL

Would you have a problem with the meeting dates and times for the board/agency for which you are applying? ☐ Yes ☑ No

If yes, please explain: _____

Signed: _____ Date: 11-2026

SCHEDULE OF BOARD/COMMITTEE MEETINGS

Beautification Committee	**2nd Tuesday of each month via Zoom**	10:00 am
Planning and Zoning Board*	**3rd Wednesday of each month**	3:30 pm
Recreation Committee	**2nd Thursday of each month via Zoom**	10:00 am
Utility Board*	**3rd Tuesday of each month**	3:30 pm

***These boards are subject to Financial Disclosure.**

Submit application to:

Silvia Roussin
City Clerk
City of Key Colony Beach
PO Box 510141
Key Colony Beach, FL 33051

OR

CITY OF KEY COLONY BEACH ADVISORY BOARD & VOLUNTEER COMMITTEE MEMBER APPLICATION

Acknowledgments:

1. Accuracy of Information. I certify that the information provided in my Board Application with the City of Key Colony Beach is correct to the best of my knowledge.

Printed Name: TERRY GREGORY TAYLOR

Signature: [signature]

Date: 11-1-2024

Membranes: The new Membrane order has been submitted with an estimated delivery date of November 23rd to 24th.

Wastewater Tank Painting Project: The Bid Opening for the project was held on November 2nd, followed by the Evaluation Committee Meeting on November 9th. A recommendation is on today's agenda for the Board, with a final award to be made on November 19 by the City Commission.

Collection System Action Plan: The Collection System Action Plan has been submitted to the DEP, and we are waiting on comments.

Sewer Line Cleaning and Camera Project: The City Commission is currently reviewing the option to put the project back out to bid to expand the scope to include repairs.

Lift Station Project: Construction is progressing, with work underway on the replacement control panel service rack at Lift Station No. 14. Revised duplex control panel shop drawings are being prepared for resubmittal and are expected this week or early next week for Engineer review and approval. The Contractor and Engineer are coordinating with FKEC regarding replacement of poles and/or panel racks

Backup Generator Project: CPH is developing a concept plan to replace the entire system and will work with the city to review additional funding options to offset higher capital costs.

Sludge Hauling and Processing Analysis: The City has received the Dewatering Study, which is on today's agenda for review.

Shelter Bay Pervious Paver Project: The State has confirmed that it is reviewing the grant agreement and will provide an agreement for execution as soon as possible.

Wastewater Billing: Quarterly billing is underway with no noted concerns.

Daily Operations: In addition to these projects, staff continues to manage daily utility operations, including utility billing, payment processing, deposits, accounts payable, and recording financial transactions in QuickBooks.

OPERATOR REPORT

October 2026

Plant Update:

1. No emergency Call out for October.
2. October 1st Crane truck emergency ordered to clean cassette train #2 5 through 8.
3. October 2nd Nearshore Electric onsite to repair SAM blower #1.
4. October 5th Nearshore Electric onsite to install digester level alarm and camera.
5. October 6th Nearshore Electric onsite to continue work on digester level alarm.
6. October 7th Nearshore Electric onsite to continue work on digester level alarm.
7. October 8th Nearshore Electric onsite to continue work on digester level alarm.
8. October 9th Crane truck emergency ordered to clean cassette train #1 1 through 4.
9. October 15th Nearshore Electric onsite to continue work on digester level alarm. Reynolds also onsite to assist with digester level alarm.
10. October 21st Nearshore Electric onsite to look at Pulsar level meter.
11. October 27th Nearshore Electric onsite to hook up temporary generator at 8th street lift station.
12. October 28th Haack onsite to pump out digester.
13. October 29th Haack onsite to pump out digester.

Haack Industries hauled 31,250 gallons sludge 10/31/26

1. Monthly averages for Total Nitrogen=0.8 mg/L, and Total Phosphorus= 0.04 mg/L.

R.O. Update:

1. Maintenance Budget for Re-Use (attached)

Collection system:

14. **October 30th 3rd Generation at south Causeway lift station with CCTV searching for leaks. Nearshore Electric also at same lift station to pull new wires for control box.**

				MAINTENANCE BUDGET FOR RE-USE								
				Month of SEP 2026			Budgeted	Actual	Actual			
							Cost per Year	Cost/Month	Cost/year			
RO Power Cost KWH X 0.777200							$7,185	$286.14	$2,142.26			
Irrigation Pumps Power Cost KWH X 0.777200								$12.40	$150.08			
Chemicals RO System Include Anti-scalent							$15,000.00		$1,045.00			
Extra Testing for DEP TSS, FECAL,							$11,000.00	$787.36	$4,499.23			
Main & Repairs to system including pre filter cartridges.							$11,000.00	$260.25	$1,451.25			
Consulting							$5,300	$4,600	$4,600			
Insurance RO system/building							$1,700	$141.66	$566.64			
Reserves							$8,000	$666.66	$2,666.64			
		Hours	Cost $									
R.O. Power meter		3681.698	$286.14	$0.08								
Irrg pump Power Meter		159.553	$12.40	$0.08								
Monthly Total		3841.251	$298.54				$59,185	$6,754.47	$17,121.10	Total for year		
							$4,932					
		Monthly Total	Total/year		Total to date							
Gallons		530,000	6,297,198		153,225,108							
Cost / Gal		$0.012744	$0.002719									
Cost /Thousand Gal		$12.74	$2.72									
Pre Filters	$260.25	Per set										
$17.35 each X 15 per set.												

October Report:

1st: Heavy rains, Crane on site to clean side one membranes to make it through the increased flows.

2nd: Nearshore electric on site for SAM blower #1 continuous repair issues.

5th: Nearshore to start installing of digester camera and level transmitter system.

6th: Nearshore for Digester camera and level transmitter system. Third Generation plumbing on 7th street to finish check valve install (waiting for quote for concrete valve box to finish the job). W Ocean lift station repair pushed back till after the king tides. Stopped alum feed to help clean up the biology.

7th: MBR train #1 level transducer failed and replaced with spare that cannot be programed to match Train #2. Took one wire off so plant will run on train #2. If that fails, we can land the one wire and run on Train #1. Found NTU meters all have issues. These meters are obsolete and will need replacing in the upcoming months. One NTU was not even submerged in the water for a correct reading. Temporary using tape to hold meter together.

9th: Crane rental on site. Cleaned train #1 cassettes by hand.

12th: Colombus day/Holiday. High flows for holiday weekend. Sadowski south lift station in alarm due to high level. Found the thermal had tripped due to extensive pump run hours. Reset and tripped immediately. Had to replace thermal/overloads.

15th: Crane rental on site. Clean train #1 cassettes by hand.

16th: Flush aluminum sulfate lines. Pretty dirty.

20th: Finalizing the Omni Site instrumentation reporting program for the digester. Online and functioning as intended. Set up the call out for digester level to Danny's phone in case of overflow into the digester.

22nd: King tides are really affecting the incoming flows. Plant running at 74%. R.O. system offline due to not making any R.O. to send to the reuse tank. R.O. membranes need chemical cleaning.

23rd: Crane rental on site. Pull motor/mixer out of digester then clean train #2 cassettes by hand.

26th: Sunday's flow due to King Tides are 425,000. Placed two 2" pumps, hoses and gas cans on top of ISAM tank incase we need to bypass some influent flow into the wells to keep from spilling anything on the ground.

27th: Nearshore working on the emergency generator and wiring for the lift stations.

28th: Lift station salinities and alarm system checks. Clean RO using high and low PH cleaners. 7th Street Station is completely full due to tides. Haack hauled 3 maintenance loads from digester. PSI delivered new motor for digester mixer (Incorrect Motor)

29th: Put RO back online after yesterday's cleaning. Only making 13 gpm on reuse and 13 gpm on reject. After 30 minutes it stopped making water all together. Harn RO system informed that the salinity has clogged and possibly ruined the RO membranes, High tide at 12:30 PM and Sadowski has 2 manholes (one in front of Nauti Turtle and one in front of shopping complex) that have wastewater coming out of the tops. Notified local DEP office and State Watch Office. Estimated spill of 2,400 gallons into storm drains. Found S Sadowski not pumping due to electrical components that failed due to nonstop run times caused by tides. Residents can't flush toilets. Haack on site for 2 loads to empty the lift station while repairs are made. 7th street lift station is running but can't keep up and residents can't flush toilets. Haack hauled one load from there.

30th: Sadowski flooded again and spilled from the same 2 manholes. Nearshore running new wires at S Sadowski. Third Generation running camera looking for leaks.

This is of the old wires and connections .

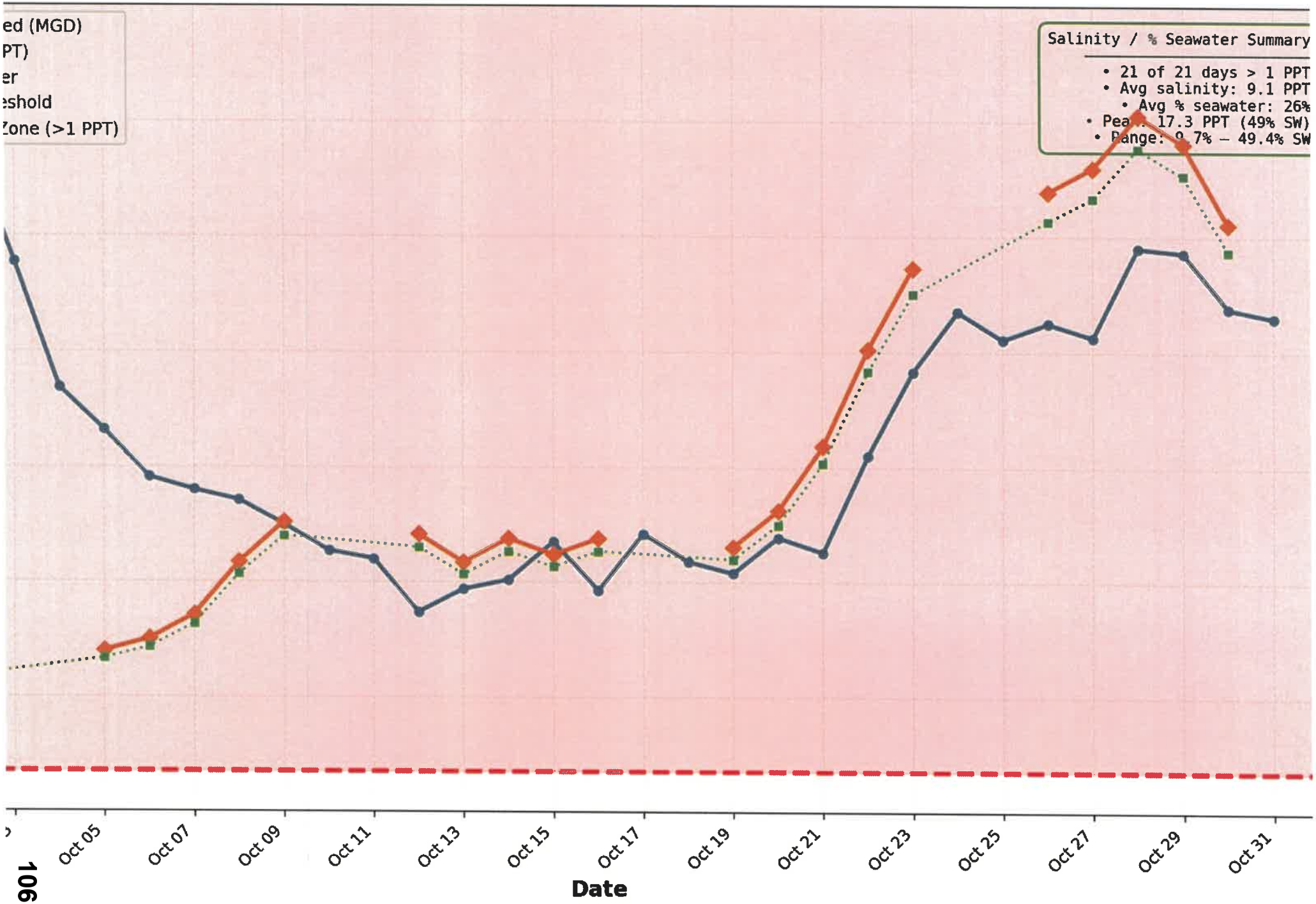


This is the new wires and waterproof connections.



Date:	Flow Treated MGD	Salinity PPT
10/1/2026	0.606	3.4
10/2/2026	0.584	
10/3/2026	0.477	
10/4/2026	0.369	
10/5/2026	0.332	4.0
10/6/2026	0.291	4.3
10/7/2026	0.280	4.9
10/8/2026	0.271	6.2
10/9/2026	0.250	7.2
10/10/2026	0.227	
10/11/2026	0.220	
10/12/2026	0.174	6.9
10/13/2026	0.194	6.2
10/14/2026	0.202	6.8
10/15/2026	0.235	6.4
10/16/2026	0.193	6.8
10/17/2026	0.242	
10/18/2026	0.218	
10/19/2026	0.208	6.6
10/20/2026	0.239	7.5
10/21/2026	0.226	9.1
10/22/2026	0.310	11.5
10/23/2026	0.383	13.5
10/24/2026	0.435	
10/25/2026	0.411	
10/26/2026	0.425	15.4
10/27/2026	0.413	16.0
10/28/2026	0.490	17.3
10/29/2026	0.486	16.6
10/30/2026	0.438	14.6
10/31/2026	0.430	
Total=	10.259	
Average=	0.331	9.1
Avg. Percent Salt Water=	34%	

October 2026 – Flow, Salinity, and Percent Seawater
(35 PPT = 100% Seawater)



FLORIDA DEPARTMENT OF Environmental Protection

Ron DeSantis
Governor

Alexis A. Lambert
Secretary

Wastewater Abnormal Event 5 Day Report

This form is provided for your convenience only, in order to report the required information to Florida DEP. You may complete this form and email to the appropriate District office, as listed below.

Northwest District - NWD_WastewaterCompliance@floridadep.gov
Northeast District - DEP_NED@floridadep.gov
Southwest District - SWD_DW@floridadep.gov
Southeast District -SED.Wastewater@floridadep.gov
South District – SD-AbnormalEvents@floridadep.gov
Central District – DEP_CD@floridadep.gov

These incidents, and the corresponding Public Notice of Pollution, may also be reported through the DEP Business Portal. If it is preferred to submit these separately, the PNP may be submitted here. If the spill is greater than 1000 gallons, it MUST be reported to the **State Watch Office** at 1-800-320-0519 and a PNP MUST be submitted. All fields with an asterisk (*) must be completed as they are required by rule 62-620.610, F.A.C.

Responsible Party Information

*Facility Name: Key Colony Beach WWTP
*Permit Number: FLA014720
*Facility Type: Domestic
*County: Monroe
*Reporter Name: Danny Price
*Reporter Phone: 305-393-5338
*Reporter Email: danny.price@keycolonybeach.net
*Reporter Address: 600 8th Street, Key Colony Beach FL 33051
*Responsible Party Name: Mayor of KCB currently Freddie Foster
*Responsible Party Address: 600 W Ocean Drive, Key Colony Beach FL 33051
*Responsible Party Phone: 305-289-1212
*Responsible Party Email: mayor@keycolonybeach.net

Who was contacted?

DEP

*Date and Time: 10/30/2026 13:45
*Person contacted: left message

State Watch Office

*Date and Time: 10/30/2026 13:45
*Incident Number: 2026-10874

Other

*Date and Time:
*Person contacted:

Spill Information

*Spill Characteristic / Wastewater: Untreated
*Type Source: Manhole
*Area affected: Storm Water

*Date / Time Discharge Began: 10/29/2026 12:30

*Amount Discharged (in gallons): 2,400.00

*Amount Recovered (in gallons): 0.00

*Date / Time Discharge Ceased: 10/29/2026 13:30

*Physical Address: 300 and 400 Sadowski Causeway, Key Colony Beach FL 33051

*Latitude/Longitude:

*Malfunction/Cause: Equipment

Effluent Limit Violations

- ☐ CL_2 (mg/L)
- ☐ TSS (mg/L)
- ☐ Turbidity (NTU)
- ☐ NO_3 (mg/L)
- ☐ Other
- ☐ Fecal Coliforms (CFU/100 mL)
- ☐ pH (SU)
- ☐ CBOD5 (mg/L)
- ☐ Abnormal Flow (MGD)

*Clean Up Status: Complete

***Clean Up Actions:**

- ☐ Vacuumed/Pump Truck
- ☐ Applied Disinfectanct
- ☐ Applied Lime
- ☐ Applied HTH/chlorine
- ☐ Applied absorbents
- ☑ Washed down area
- ☐ Water samples/field measurements taken
- ☐ Raked and disposed of debris
- ☐ Signs posted
- ☐ Other

Sampling results / Field readings:

***Incident Description and Remedial Action Being Taken** (Include estimated time for completion):

S Sadowski lift station failed due to the pump tripping on overload during high tide. The pump is running continuously due to King Tides. This nonstop running tripped the overload and caused the system to surcharge and start escaping from 2 manholes. A Resident notified the wastewater operator at the plant of the spill. Both manholes were spilling about 20 gpm each using the reference sheet. The water was going directly into the storm drains next to the manholes. Soon as we reset the overload, the spill stopped immediately. We also had a pump truck try to clean up any water but by the time the truck arrived the water was all evaporated. The spilled water had a salinity of 26.7 PPT and was 76% seawater from the King Tide. We used the pump truck to remove 8,000 gallons out of the lift station to remove the surcharge from the lines.

We replaced the overload and tested the amps. All checked out good.

***Future Preventative Measures:**

We are using cameras for leaks to help find and slow the I&I.

FLORIDA DEPARTMENT OF Environmental Protection

Ron DeSantis
Governor

Alexis A. Lambert
Secretary

Wastewater Abnormal Event 5 Day Report

This form is provided for your convenience only, in order to report the required information to Florida DEP. You may complete this form and email to the appropriate District office, as listed below.

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Northeast District - DEP_NED@floridadep.gov
Southwest District - SWD_DW@floridadep.gov
Southeast District -SED.Wastewater@floridadep.gov
South District – SD-AbnormalEvents@floridadep.gov
Central District – DEP_CD@floridadep.gov

These incidents, and the corresponding Public Notice of Pollution, may also be reported through the DEP Business Portal. If it is preferred to submit these separately, the PNP may be submitted here. If the spill is greater than 1000 gallons, it MUST be reported to the **State Watch Office** at 1-800-320-0519 and a PNP MUST be submitted. All fields with an asterisk (*) must be completed as they are required by rule 62-620.610, F.A.C.

Responsible Party Information

*Facility Name: Key Colony Beach WWTP
*Permit Number: FLA014720
*Facility Type: Domestic
*County: Monroe
*Reporter Name: Danny Price
*Reporter Phone: 305-393-5338
*Reporter Email: danny.price@keycolonybeach.net
*Reporter Address: 600 8th Street, Key Colony Beach FL 33051
*Responsible Party Name: Mayor of KCB currently Freddie Foster
*Responsible Party Address: 600 W Ocean Drive, Key Colony Beach FL 33051
*Responsible Party Phone: 305-289-1212
*Responsible Party Email: mayor@keycolonybeach.net

Who was contacted?

DEP

*Date and Time: 10/30/2026 13:29
*Person contacted: left message

State Watch Office

*Date and Time: 10/30/2026 13:25
*Incident Number: 2026-10874

Other

*Date and Time:
*Person contacted:

Spill Information

*Spill Characteristic / Wastewater: Untreated
*Type Source: Manhole
*Area affected: Storm Water

*Date / Time Discharge Began: 10/30/2026 00:30

*Amount Discharged (in gallons): 7,200.00

*Amount Recovered (in gallons): 0.00

*Date / Time Discharge Ceased: 10/30/2026 03:30

*Physical Address: 300 and 400 Sadowski Causeway, Key Colony Beach FL 33051

*Latitude/Longitude:

*Malfunction/Cause: Equipment

Effluent Limit Violations

- ☐ CL_2 (mg/L)
- ☐ TSS (mg/L)
- ☐ Turbidity (NTU)
- ☐ NO_3 (mg/L)
- ☐ Other
- ☐ Fecal Coliforms (CFU/100 mL)
- ☐ pH (SU)
- ☐ CBOD5 (mg/L)
- ☐ Abnormal Flow (MGD)

*Clean Up Status: Complete

***Clean Up Actions:**

- ☐ Vacuumed/Pump Truck
- ☐ Applied Disinfectanct
- ☐ Applied Lime
- ☐ Applied HTH/chlorine
- ☐ Applied absorbents
- ☑ Washed down area
- ☐ Water samples/field measurements taken
- ☐ Raked and disposed of debris
- ☐ Signs posted
- ☐ Other

Sampling results / Field readings:

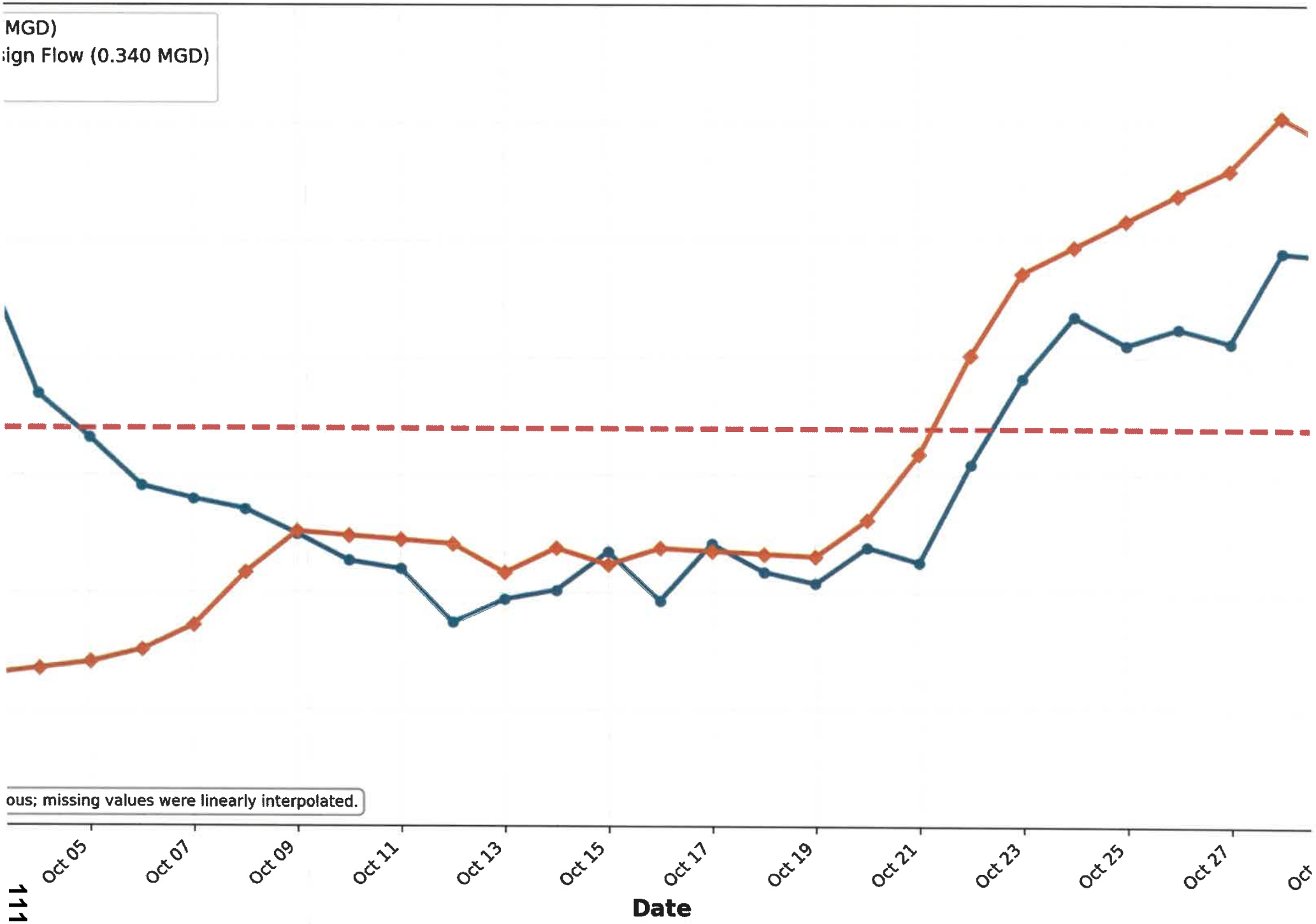
***Incident Description and Remedial Action Being Taken** (Include estimated time for completion):

Coming into work, I checked for signs of a spill and I noticed a spill took place again at the same two manholes. I checked the lift station and it was tripped again. Also the high level alarm float/light did not activate. I can only estimate that both manholes were spilling about 20 gpm as the earlier spill. I estimate the spill started an hour before peak high tide. One hour at peak high tide and one hour after high tide. S Sadowski lift station failed due to the pump tripping on overload again and also blew a capacitor during high tide. The pump is running continuously due to King Tides. This nonstop running tripped the overload/capacitor and caused the system to surcharge and start escaping from 2 manholes. I can only estimate that both manholes were spilling about 20 gpm as the earlier spill. I estimate the spill started an hour before peak high tide. One hour at peak high tide and one hour after high tide. For a total of 3 hours each. The water was going directly into the storm drains next to the manholes. I called in electricians to trouble shoot the issue and found bad wires under ground. They are pulling new wires and upgrading some components in the lift station to help with the extended runtime and cycles due to I&I.

***Future Preventative Measures:**

We are now looking into upgrading the pump from a single phase motor to a 3 phase motor to handle the heavy duty pump cycles. We also found major leaks along Sadowski Causeway. Bigger leaks are from connections into the main. We will start the repair process when we get the entire line inspected with the cameras.

October 2026 – Flow Treated, Salinity, and Permitted Design Flow



City of Key Colony Beach Waste Water Treatment Plant
Balance Sheet
As of October 31, 2026

	Oct 31, 26	
ASSETS		
Current Assets		
Checking/Savings		
101-000 · Revenue Fund		
101-045 · Sewer Revenue MM Acct#7106	1,790,393.94	
Total 101-000 · Revenue Fund		1,790,393.94
102-000 · Operating & Maintenance Fund		
102-020 · Operating Account #6006	81,652.77	
102-030 · WW Res SRF Loan Pmt Acct #0301	333,010.08	
Total 102-000 · Operating & Maintenance Fund		414,662.85
163-000 · Restricted - Replace & Ext Fund		
163-100 · Iberia MM Acct #9842	553,654.79	
Total 163-000 · Restricted - Replace & Ext Fund		553,654.79
Total Checking/Savings		2,758,711.58
Accounts Receivable		
1200 · Accounts Receivable		31,363.75
Total Accounts Receivable		31,363.75
Other Current Assets		
1499 · Undeposited Funds		1,734.00
Total Other Current Assets		1,734.00
Total Current Assets		2,791,809.33
Fixed Assets		
166-000 · Utility Plant		
166-060 · Improvement other than building	45,250.00	
166-010 · Construction in Progress	516,107.31	
161-020 · Land	9,087.37	
166-030 · Building	335,742.29	
166-040 · Treatment Plant	1,007,299.10	
166-041 · Treatment Plant Renovations	11,663,106.25	
166-050 · Equipment	324,300.34	
166-080 · Sewer Lines-Second Section	1,881,084.05	
166-090 · Furnitures and Fixtures	10,127.46	
Total 166-000 · Utility Plant		15,792,104.17
167-000 · Less Accumulated Depreciation		(7,900,309.86)
Total Fixed Assets		7,891,794.31
TOTAL ASSETS		**10,683,603.64**

City of Key Colony Beach Waste Water Treatment Plant

Balance Sheet

As of October 31, 2026

		Oct 31, 26
LIABILITIES & EQUITY		
Liabilities		
Current Liabilities		
Accounts Payable		
202-000 · Accounts Payable		97,020.29
Total Accounts Payable		97,020.29
Other Current Liabilities		
207-000 · Due to Gen Fund		27,762.20
220-000 · Deposit on Connection Fees		32,375.00
Total Other Current Liabilities		60,137.20
Total Current Liabilities		157,157.49
Long Term Liabilities		
231-020 · Florida State Revolving Loan		3,381,345.49
Total Long Term Liabilities		3,381,345.49
Total Liabilities		3,538,502.98
Equity		
Invested in Capital Assets-		
253-070 · Net of Debt	4,510,448.82	
Total Invested in Capital Assets-		4,510,448.82
Restricted		
253-000 · Plant Improvements		
253-020 · RO Plant Reserves	20,000.00	
253-030 · Lateral Reserve	70,000.00	
253-080 · Other Plant Improvements	385,151.64	
253-050 · Membrane	167,486.00	
253-060 · Reuse Membranes	60,000.00	
Total 253-000 · Plant Improvements	702,637.64	
Total Restricted		702,637.64
3000 · Opening Bal Equity		855.00
3900 · Unrestricted		1,697,085.31
Net Income		234,073.89
Total Equity		7,145,100.66
TOTAL LIABILITIES & EQUITY		**10,683,603.64**

City of Key Colony Beach Waste Water Treatment Plant

Income Statement-Budget & Actual

	Oct 26	FY26 Budget	$ Over Budget
Ordinary Income/Expense			
Income			
343-536 · Property Inquiry Fees	30.00	650.00	(620.00)
5009 · Returned Check Charges	75.00	0.00	75.00
343-500 · Sewer Service	371,437.04	1,481,760.00	(1,110,322.96)
343-501 · Sewer Service-Commercial	8,916.31	126,000.00	(117,083.69)
343-535 · Change of Record Fees	750.00	15,000.00	(14,250.00)
343-550 · Reuse Water Reimbursement	0.00	60,000.00	(60,000.00)
343-560 · Delinquent Charges	2,670.00	2,000.00	670.00
Total Income	383,878.35	1,685,410.00	(1,301,531.65)
Gross Profit	383,878.35	1,685,410.00	(1,301,531.65)
Expense			
Bad Debt Expense			
535-000 · OPERATING EXPENSES			
535-080 · Internet	255.48	2,720.00	(2,464.52)
535-070 · Computer Equipment/Maintanence	160.00	4,000.00	(3,840.00)
535-030 · Electricity	10,126.01	122,000.00	(111,873.99)
535-035 · Insurance	(11.20)	40,000.00	(40,011.20)
535-040 · Telephone	1,420.31	9,000.00	(7,579.69)
535-050 · Water	47.74	525.00	(477.26)
535-060 · Systems Operator	25,830.09	328,500.00	(302,669.91)
535-280 · Supplies & Chemicals	28,445.52	108,000.00	(79,554.48)
535-440 · Plant Maintenance & Repairs	6,930.18	190,000.00	(183,069.82)
535-449 · Reverse Osmosis System			
535-456 · R.O. Insurance	0.00	2,000.00	(2,000.00)
535-455 · R.O. Consulting	0.00	10,000.00	(10,000.00)
535-453 · R.O. Testing	0.00	3,000.00	(3,000.00)
535-452 · R.O. Chemicals	0.00	6,000.00	(6,000.00)
535-451 · R.O. Electric	0.00	4,000.00	(4,000.00)

City of Key Colony Beach Waste Water Treatment Plant
Income Statement-Budget & Actual

	Oct 26	FY26 Budget	$ Over Budget
535-450 · R.O. Maintanence & Repair	0.00	27,000.00	(27,000.00)
Total 535-449 · Reverse Osmosis System	0.00	52,000.00	(52,000.00)
535-460 · System Maintanence & Repairs	3,685.80	85,000.00	(81,314.20)
535-510 · Sludge Hauling	30,468.75	490,000.00	(459,531.25)
Total 535-000 · OPERATING EXPENSES	107,358.68	1,431,745.00	(1,324,386.34)
535-600 · GENERAL & ADMINISTRATIVE			
535-670 · Service Contract	0.00	30,000.00	(30,000.00)
535-696 · Maintenance by City Employees	2,010.35	3,500.00	(1,489.65)
535-675 · Structure & Grounds Maintenance	0.00	4,000.00	(4,000.00)
535-610 · Salaries	14,961.90	226,019.00	(211,057.10)
535-615 · Payroll Taxes	1,144.59	20,531.00	(19,386.41)
535-616 · Retirement Benefits	1,000.00	22,750.00	(21,750.00)
535-617 · Medical Coverage	3,678.40	22,800.00	(19,121.60)
535-620 · Accounting	0.00	19,000.00	(19,000.00)
535-630 · Printing, Postage, Office	612.81	3,100.00	(2,487.19)
535-650 · Consulting	19,372.00	40,000.00	(20,628.00)
535-660 · Miscellaneous Office	957.56	500.00	457.56
535-680 · Legal Fees	0.00	1,000.00	(1,000.00)
535-690 · Legal Advertising	0.00	600.00	(600.00)
Total 535-600 · GENERAL & ADMINISTRATIVE	43,737.61	393,800.00	(350,062.39)
535-700 · DEBT RETIREMENT	0.00	272,000.00	(272,000.00)
Total Expense	151,096.29	2,097,545.00	(1,946,448.71)
Net Ordinary Income	232,782.06	(412,135.00)	644,917.06
Other Income/Expense			
Other Income			
536-910 · Sewer Connection Fees	0.00	6,000.00	(6,000.00)
536-915 · Miscellaneous Income			
536-917 · Miscellaneous Income	0.00	200.00	(200.00)
Total 536-915 · Miscellaneous Income	0.00	200.00	(200.00)

City of Key Colony Beach Waste Water Treatment Plant

Income Statement-Budget & Actual

	Oct 26	FY26 Budget	$ Over Budget
536-920 · Interest Income			
536-923 · Interest Income 9842	1,408.82		
536-922 · Interest Income 6006	289.85		
536-921 · Interest Income 7106	4,282.54		
536-920 · Interest Income - Other	847.37	90,000.00	(89,152.63)
Total 536-920 · Interest Income	6,828.58	90,000.00	(83,171.42)
536-930 · FKEC Capital Credits	0.00	113,935.00	(113,935.00)
535-865 · GRANTS	0.00	2,195,500.00	(2,195,500.00)
Total Other Income	6,828.58	2,405,635.00	(2,398,806.42)
Other Expense			
537-000 · Capital Reserves - Reuse Water			
535-849 · ReUse Membrane Reserve	190.00	0.00	190.00
Total 537-000 · Capital Reserves - Reuse Water	190.00	0.00	190.00
535-800 · CAPITAL EXPENSES			
535-860 · Misc. Grants	208.00	0.00	0.00
535-844 · Capital Plant	0.00	1,975,000.00	(1,975,000.00)
535-846 · Capital System	0.00	270,500.00	(270,500.00)
Total 535-800 · CAPITAL EXPENSES	208.00	2,245,500.00	(2,245,292.00)
535-850 · RESERVE FUNDING			
535-848 · ZeeWeed Membrane Reserve	5,138.75	48,000.00	(42,861.25)
Total 535-850 · RESERVE FUNDING	5,138.75	48,000.00	(42,861.25)
Total Other Expense	5,536.75	2,293,500.00	(2,287,963.25)
Net Other Income	1,291.83	112,135.00	(110,843.17)
Net Income	**234,073.89**	**(300,000.00)**	**534,073.89**

UTILITY BOARD
of KEY COLONY BEACH FLORIDA

WW WARRANT #1026

ACCT#	PAYABLE TO:		AMOUNT	FOR
535-040	AT&T	$	1,514.88	Telephone, & Internet
535-050	FKAA	$	47.74	Water
535-030	FKEC	$	-	Electricity 9/21-10/22-Bill paid 11/5/26
535-280	Hawkins, Inc.	$	19,233.75	chemicals
535-280	Specialty Hardware	$	69.02	Supplies-miscellaneous
535-650	CPH	$	4,546.00	Consulting-WRF Generator replacement
535-650	CPH	$	1,176.00	Consulting-DEM-HL00163-Lift stations
535-650	CPH	$	13,650.00	Consulting-Collection System Action Plan
535-450	Komline Harn	$	1,901.88	RO maintenance & repairs
535-630	The UPS Store	$	330.28	Printing, postage, and office-FY27Q1 billing
535-510	Haack Environmental LLC	$	4,725.00	Sludge hauling
535-848	Sunbelt Rentals	$	248.51	Equipment rental-membrane replacement
535-280	NAPA Auto Parts	$	840.25	Supplies and chemicals
535-440	Nearshore Electric	$	2,307.00	Checked SAM blower and VFD replacement
535-848	Nearshore Electric	$	190.00	Membrane-replaced transducer on tank
343-501	Orestes Sanchez	$	1,527.00	Sewer service refund for payment on capped off tie-in
535-460	3rd Generation Plumbing	$	279.00	System maintenance & repairs
535-848	Ichabod Crane Service	$	1,000.00	Crane rental-membrane replacement
535-280	USA Bluebook	$	6,806.40	Supplies and chemicals
535-848	Keys Cranes	$	4,138.75	Crane rental-membrane replacement
535-060	US Water Services	$	25,830.09	Systems Operator-Oct 2026
535-061	US Water Services	$	843.60	Water testing
		TOTAL	**$ 91,205.15**	
CITY OF KEY COLONY BEACH				
535-070	City of Key Colony Beach	$	160.00	Computer Support-Sep
535-080	City of Key Colony Beach	$	125.86	Internet
535-630	City of Key Colony Beach	$	282.53	Copier
535-620	City of Key Colony Beach	$	-	Sept and Oct accounting fees (pd Nov)
535-040	City of Key Colony Beach	$	35.03	ATT Firstnet phone service
535-848	City of Key Colony Beach	$	750.00	Ichabod crane-membrane replacement
535-630	City of Key Colony Beach	$	21.18	Vista print-business cards
535-440	City of Key Colony Beach	$	1,646.20	Amazon-Misc supplies
535-440	City of Key Colony Beach	$	1,009.32	Home Depot-Misc supplies
535-040	City of Key Colony Beach	$	529.40	Grainger
535-040	City of Key Colony Beach	$	314.64	Marathon Waste Transfer
535-600	City of Key Colony Beach	$	2,010.35	Public works employees to Utility
535-460	City of Key Colony Beach	$	104.00	Building permit-Pedro Falcon lift stations
535-610	City of Key Colony Beach	$	16,106.49	Salaries
535-617	City of Key Colony Beach	$	3,678.40	Medical coverage
535-616	City of Key Colony Beach	$	1,000.00	Retirement Benefits
		TOTAL	**$ 27,773.40**	
GRAND TOTAL OF WW WARRANT 1026:		**$**	**118,978.55**	

Key Colony Beach Storm Water Fund
Balance Sheet
As of October 31, 2026

	Oct 31, 26
ASSETS	
Current Assets	
Checking/Savings	
101-001 · Stormwater Utilities#8300070128	532,059.06
Total Checking/Savings	532,059.06
Accounts Receivable	
131-001 · Due from General Fund	459.97
Total Accounts Receivable	459.97
Total Current Assets	532,519.03
Fixed Assets	
166-901 · Stormwater System	3,771,742.00
166-902 · Construction in Progress	466,096.45
17000 · Accumulated Depreciation	-590,843.60
Total Fixed Assets	3,646,994.85
TOTAL ASSETS	**4,179,513.88**
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	
20000 · Accounts Payable	173.45
Total Accounts Payable	173.45
Total Current Liabilities	173.45
Total Liabilities	173.45
Equity	
30000 · Opening Balance Equity	618,490.00
32000 · Retained Earnings	3,579,112.53
Net Income	-18,262.10
Total Equity	4,179,340.43
TOTAL LIABILITIES & EQUITY	**4,179,513.88**

Key Colony Beach Storm Water Fund
INCOME STATEMENT Budget & Actual

	Oct 26	FY27 Budget	$ Over Budget
Ordinary Income/Expense			
Income			
363-100 · Stormwater Fees			
363-105 · Delinquent Charges/Overdue Acct	0	50	-50
363-100 · Stormwater Fees - Other	0	124,740	-124,740
Total 363-100 · Stormwater Fees	0	124,790	-124,790
Total Income	0	124,790	-124,790
Expense			
513-031 · Legal and Professional Services	0	1,000	-1,000
513-032 · Accounting and Auditing	0	1,000	-1,000
513-033 · Consulting	338	59,000	-58,662
513-034 · Engineering/Architectural	18,722		
513-041 · Postage	0	250	-250
535-050 · Utilities			
535-051 · Electric	173	0	173
Total 535-050 · Utilities	173	0	173
535-610 · Salaries, Payroll Taxes, ETC...	0	4,000	-4,000
535-660 · Miscellaneous Office	0	400	-400
538-046 · Maint/ Repairs for STORMWATER	0	65,000	-65,000
Total Expense	19,233	130,650	-111,417
Net Ordinary Income	-19,233	-5,860	-13,373
Other Income/Expense			
Other Income			
361-100 · Interest Income	971	5,900	-4,929
373-871 · Stewardship Grant	0	1,500,000	-1,500,000
373-872 · SWAG Grant	0	2,217,610	-2,217,610
Total Other Income	971	3,723,510	-3,722,539
Other Expense			
535-800 · CAPITAL EXPENSES	0	3,797,610	-3,797,610
Total Other Expense	0	3,797,610	-3,797,610
Net Other Income	971	-74,100	75,071
Net Income	-18,262	-79,960	61,698

UTILITY BOARD

of KEY COLONY BEACH FLORIDA

SW WARRANT #1026

INVOICE #	PAYABLE TO:		AMOUNT	FOR
181040	CPH	$	337.50	Consulting Services-LPA0311
181032	CPH	$	18,722.00	Consulting Services-KG011
9/21-10/22	FKEC	$	173.45	Electricity
		TOTAL	**$ 19,232.95**	

GRAND TOTAL OF SW WARRANT 1026: $ 19,232.95