

QUESTION 18 - WASTEWATER MANAGEMENT

<p>See State Comprehensive Plan (Chapter 187, F.S.)</p> <p>GOAL (8); POLICIES (12),(13) GOAL (13); POLICY (11) GOAL (16); POLICY (1) GOAL (18); POLICIES (1),(2),(3),(4),(6),(10)</p>
<p>EXISTING LEVEL OF SERVICE:</p> <p>ADOPTED LEVEL OF SERVICE STANDARD:</p> <p>LEVEL OF SERVICE AFTER PROJECT BUILDOUT:</p>

- A. Provide, in the table given below, the projected wastewater generation at the end of each phase of development and proposed wastewater treatment. Identify the assumptions used to project this demand.**

Development will occur in one phase. The projected wastewater demand accordingly corresponds to full development of the site.

Table 18.1 Wastewater Generation			
Phase/Land Use	Wastewater Generation (MGD)	On-Site Wastewater Treatment (MGD)	Off-Site Wastewater Treatment (MGD)
Existing			
Vacant	0	0	0
Proposed			
Retail	0.1100	0	0.1100
Office	0.1330	0	0.1330
Hotel	0.0300	0	0.0300
Perimeter Berms	0	0	0
TOTALS	0.2730	0	0.2730

Table 18.2			
Wastewater Generation Rates			
Use	Units	Generation Rate	Demand (MGD)
Retail	1.1M gross SF	0.1 GPD/SF*	0.1100
Office	885,000 SF	15 GPD / 100 SF*	0.1330
Hotel	300 rooms	100 GPD/room*	0.0300
Perimeter Berms	0	0	0
TOTALS			0.2730

* Waste water demands based on the City of Sunrise Planning & Development Department Policies, Procedures, Standard Details and Specifications for Water Distribution and Sewage Collection Systems dated May 15, 1998.

B. If applicable, generally describe the volumes, characteristics and pre-treatment techniques of any industrial or other effluents prior to discharge from proposed industrial-related use(s).

Pre-treatment techniques are not anticipated to be needed as part of this development.

C.

1. If off-site treatment is planned, identify the treatment facility and attach a letter from the agency or firm providing the treatment outlining present and projected excess capacity of the treatment and transmission facilities through build out, any other commitments that have been made for this excess and a statement of ability to provide service at all times during or after development.

Letter from Mr. Sean F. Dinneen, Acting City Engineer, City of Sunrise, dated April 18, 2005 is included at the end of this question providing the information requested in ADA Question 18 dealing with projected capacity excesses, and existing commitments.

The City of Sunrise will be the water/sewer provider for the project. Current City practice requires developers to enter into formal capacity reservation agreements with the City, prior to the City's making formal, affirmative representations concerning the City's ability to provide service. The reservation agreements are generally entered into later in the development process, once specific uses, and thus water/sewer demands, can be meaningfully calculated. Applicant, or other appropriate entity(ies) will enter into formal agreements with the City concerning the provision of water and sewer service at such time as the specific water and sewer requirements can be accurately calculated.

According to the City's Comprehensive Plan, as modified pursuant to the latest Evaluation and Appraisal Report dated April 27, 1999, Part II, Goals, Objectives, Policies and Other Adopted Plan

Components, Infrastructure Element, Policy 1.1.1, and Capital Improvements Element, Policy 1.2.1, the adopted current Level of Service standards are:

“Annual average daily flow shall not exceed 90 percent of design capacity until buildout. The system shall maintain the capacity to collect, treat and dispose of 110 gallons per person per day”.

Pursuant to the letter from Mr. Sean F. Dinneen, Acting City Engineer, dated April 18, 2005, the current capacity and demand figures are as follows:

Total treatment capacity is 30,999,000 gallons per day, with a 1999 average demand of 21,480,000 gallons per day. The 2010 projected flow is 24,200,000 gallons per day per the City of Sunrise Wastewater Collection Form.

PLANT CAPACITY				
Plant*	Design Capacity (GPD)*	Annual Average Demand (GPD)*	Remaining Capacity*	Projected Flow 2010 (GPD)
Springtree	10,000,000	-	-	Not Available
Sawgrass	20,000,000	-	-	Not Available
Southwest Utility	999,000	-	-	Not Available
TOTAL	30,999,000	21,480,000	9,519,000	24,200,000**

* As of April 2005 per letter from Mr. Sean F. Dinneen, Acting City Engineer, dated April 18, 2005.

** Based on the City of Sunrise Wastewater Collection Form.

- 2. If service cannot be provided, identify the required capital improvements, cost, timing, and proposed responsible entity necessary to provide service at all times during and after development.**

Not applicable.

- D. If septic tanks will be used on site, indicate the number of units to be served, general locations and any plans for eventual phase-out.**

Septic tanks are not proposed for this development.

- E. Indicate whether proposed wastewater service will be provided within an established service area boundary.**

The proposed wastewater service will be provided by the City of Sunrise Regional Wastewater Treatment Service area.



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Phone: (954) 746-3270
Fax: (954) 746-3287

April 18, 2005

Mr. James J. Mullen, J.R., P.E.
Vice President of Engineering
Craven Thompson & Associates, Inc.
3563 NW 53rd Street
Ft. Lauderdale, FL 33309-6311

Re: The Commons LUPA

Dear Mr. Mullen:

Pursuant to your request, this letter is being written in response to your correspondence dated April 8, 2005 regarding the above referenced project.

1. Wastewater

There are 3 wastewater plants currently on line; Springtree with a capacity of 10 MGD, Sawgrass with a capacity of 20 MGD, and Southwest Utility Facility with a capacity of 0.99 MGD.

The current capacity for the City of Sunrise service area is 30.99 MGD. The current demand for the Springtree, Sawgrass, and Southwest facilities is 21.48 MGD with a projected demand for the year of 2010 of 24.2 MGD. The projected demand is based upon the 1995 Water and Wastewater Master Plan prepared by Montgomery Watson.

2. Water

There are 4 water plants currently on line; the Springtree, Sawgrass, and Southwest facility with a capacity of 44.0 MGD along with a 5 MGD standby capacity at Park City.

The current demand for the Springtree, Sawgrass, and Southwest facilities is 27.49 MGD. Current capacity for the City of Sunrise water system is 44.0 MGD along with a 5 MGD standby capacity at the Park City Plant.

Also, please find attached a spreadsheet specifying the current committed capacity for the City of Sunrise water system.

The City of Sunrise makes no representation to any party that water and sewer plant capacity is available until a party has executed a Developer Permit with the City. Availability of water and

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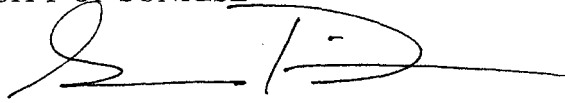
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sewer plant capacity or reservation will only be determined at such time as a signed Developer Permit is submitted to the City for approval.

Should you have any further questions, please do not hesitate to contact me at 746-3285.

Sincerely,

CITY OF SUNRISE

A handwritten signature in black ink, appearing to read 'Sean F. Dinneen', with a long horizontal line extending to the right.

Sean F. Dinneen, E.I.
Assistant City Engineer

SFD: sat
Attachment

cc: Mark S. Lubelski, P.E., City Engineer
Philip Gildan
Walter Garrard, Assistant Director (Operations), Utilities Department

**City of Sunrise
Regional Water and Wastewater Utility**

The City of Sunrise operates a regional water and wastewater utility providing for a service area of over sixty square miles in Central Broward County, Florida. This service area covers the City of Sunrise municipal boundary, portions of the Town of Davie and portions of unincorporated Broward County including the Bonaventure area, and the Indian Trace Community Development District (ITCDD), a twenty square mile area which includes the 10,000 acre Weston development. The service area is shown on the attachment to this package.

Currently, the City is operating three conventional water treatment facilities, and 1 membrane water plant, each with their own Biscayne aquifer wellfields. Treatment capacity totals 44 million gallons per day (mgd). Water storage facilities are located at six different sites throughout the service area and total 21.8 million gallons.

In addition, the City is currently operating three wastewater treatment facilities. Treatment capacity totals 30.99 mgd. This capacity includes two 10 mgd expansions completed in 1991, and 1999 at the Sawgrass Wastewater Treatment Plant. Effluent disposal facilities for all wastewater treatment plants are located at the Sawgrass Wastewater Treatment Plant site. Effluent disposal is by means of deep injection wells and the current total disposal capacity is 56.1 mgd. The wastewater disposal capacity is 56.1 mgd or 44.88 with one well out of service. The locations of these facilities are located on the attached service area map.

The update to the City of Sunrise Master Plan projected populations for a 25-year planning period. The population projection is comprised of two parts consisting of the estimation of historical population to serve as the base data and second, it is the projection of future population.

Population Projections

Year	Population
2005	183,196
2010	195,584
2015	206,423
2020	210,167

Waste Water Data Collection Form

Facility Locations: Springtree Plant (Plant #1) – 4350 Springtree Drive, Sunrise
Sawgrass Plant (Plant #3) – 14140 N.W. 8th Street, Sunrise
Southwest Utility Facility – 15400 Watermill Rd, Davie
**Regional System, fully integrated with force mains.

Operational Responsibility: City of Sunrise, Utilities Department

System FDEP Permit Capacity: 30.0 MGD (Issued by FDEP July 29, 2003, for Sawgrass Plant and November 4, 2002 for Spring Tree Plant)

Actual Treatment Capacity: Springtree Plant – 10.0 MGD
(Average Daily Flow)
Sawgrass Plant – 20.0 MGD
Southwest Utility – 0.99 MGD (Separate DPEP Permit)

Actual Disposal Capacity: 3 operating Deep Injection Wells, 56.1 MGD – 3 wells
44.8 MGD – 2 wells

1 Constructed Deep Injection Concentrate Well (waiting FDEP permitting).

Current Demand: January, 2005
Average 12 Month Demand 21.48 MGD
Peak Month Demand – 23.67 (June, 2002)

Service Area Boundaries: See attached diagram

Flow Projections:

<u>Year</u>	<u>Average Day Flows (mgd)</u>
2005	22.70
2010	24.20
2015	25.59
2020	25.89

Planning: Sawgrass Plant – There are no immediate plans for expansion.
A 10 MGD expansion has just been completed.

Springtree Plant – There are no immediate plans for expansion.

Water Data Collection Form

Facility Address: Springtree Plant (Plant #1) – 4350 Springtree Drive, Sunrise
Park City Plant (Plant #2) – 8700 S.W. 19th Place, Davie
Sawgrass Plant (Plant #3) – 14140 N.W. 8th Street, Sunrise

Operational Responsibility: City of Sunrise, Utilities Department

Design Capacity of Facility: Springtree Plant – 24 MGD
Park City Plant – 5.0 MGD
Sawgrass Plant – 18 MGD
**Regional system, fully integrated with water mains.
Southwest Plant – 2.0 MGD

Permit Capacity of Facility: Springtree Plant – 24.00 MGD
Park City Plant – 5 MGD
Southwest Plant – 2.0 MGD
Sawgrass Plant – 18 MGD

Well Capacity: Springtree Plant – 28.73 MGD (17 Wells)
Park City 6.5 MGD (on standby)
Southwest Plant – 2.0
Sawgrass Plant – 15.26 (6 Wells)
Flamingo – 7.24 (4 Wells)

Storage Capacity: Indian Trace – 2 MG Springtree – 9.0 MG
Bonaventure – 1 MG Sawgrass – 5 MG
Malaleuca – 2.3 MG Park City – 0.9 MG
Southwest – 1.5 MG

Current Demand on System: January, 2005
Average 12 Month Demand – 27.49 MGD
Peak Month Demand – 30.803 (May 2002)

Service Area Boundaries: See attached diagram

Planning: Flamingo well field pipeline to the Sawgrass Plant.
Completion of this system is anticipated by April of 2005.

Flow Projections:

<u>Flow</u>	<u>Annual Average Daily Demand (mg)</u>
2005	27.22
2010	28.84
2015	30.43
2020	32.76