QUESTION 17 - WATER SUPPLY

See State Comprehensive Plan (Chapter 187, F.S.) GOAL (8); POLICIES (1),(5),(11) GOAL (16); POLICIES (1),(2),(6) GOAL (18); POLICIES (1),(2),(3),(4),(6)
ADOPTED LEVEL OF SERVICE STANDARD: EXISTING LEVEL OF SERVICE: LEVEL OF SERVICE AFTER PROJECT BUILDOUT

A.

1. **Provide a projection of the average daily potable and non-potable water demands at the end of each phase of development. If significant seasonal demand variations will occur, discuss anticipated peaks and duration. Use the format below:**

   The project will be developed in one phase. Non-potable water demands have been identified as irrigation from on-site lakes. Development consists of (i) 1.1 million SF gross floor area of retail; (ii) 885,000 SF of office; and (iii) 300 hotel rooms. No significant seasonal variations in demand are anticipated.

Table 17.1
Projected Average Daily Demand

Phase/Land Use	Potable Water Demand (MGD)	Non-Potable Water Demand (MGD)		Total Demand (MGD)
		Irrigation*	Other	
Existing				
Vacant	0	0	0	0
Proposed				
Retail	0.1100	0	0	0.1100
Office	0.1330	0	0	0.1330
Hotel	0.0300	0	0	0.0300
Green Area	0	0.1048	0	0.1048
Perimeter Berms	0	0.0484	0	0.0484
TOTALS	**0.2730**	**0.1532**	**0**	**0.4262**

* Irrigation proposed to be provided by the proposed on-site lakes based on 0.1 ft. per week over the pervious areas. A total of 33 acres of the site will be irrigated.

2. **Describe how this demand information was generated, including the identification of the consumption rates assumed in the analysis.**

Table 17.2 Generation Rates			
Use	**Units**	**Generation Rate**	**Demand (MGD)**
Retail	1.1 M 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**

* Potable 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 5/15/98.

B. Provide a breakdown of sources of water supply, both potable and non-potable, by development phase through project completion. Use the format below.

Potable water demands are as established in Question 17 A and will be provided from offsite by the City of Sunrise. There will be no groundwater contributions to water supply. Irrigation will be provided by the on-site lakes (surface water).

Table 17.3 Water Supply Sources					
	On-Site Supply (MGD)				
Phase	**Ground Water**	**Surface Water**	**Other (Specify)**	**Total**	**Off-Site Supply (MGD)**
Existing	0	0	0	0	0
Proposed					
Potable	0	0	0	0	0.2730
Non-Potable	0	0	0	0	0
Irrigation	0	0.1532	0	0.1532	0

C. If water wells exist on-site, locate them on Map H and specify those that will continue to be used. Also locate on Map H all proposed on-site wells.(For residential developments, if individual wells for each lot are proposed, simply indicate the number of units to be served, general locations, and any plans for eventual phase-out.)Indicate the diameter, depth, and pumping rates (average and maximum)for each of the existing wells and project this information for the proposed wells (for lots served by individual dual wells, this information may be grouped for projection purposes).Also provide a breakdown of the wells with regard to potable and non-potable sources.

There are no water wells on-site, and no on-site wells are proposed as part of this development.

D. If on-site water wells are used, will this result in interference with other water wells or result in adverse impacts to underlying or overlying aquifers? Document the assumptions underlying this response.

Not applicable.

E. Who will operate and maintain the internal water supply system after completion of the development?

It is proposed that the City of Sunrise will be responsible for the operation and maintenance of the internal water supply system after completion of development.

The operation and maintenance of the lake water irrigation system will be the responsibility of the landscape maintenance company to be retained by the Owner/Developer of the project.

F.

1. If an off-site water supply is planned, attach a letter from the agency or firm providing service outlining:

(a.) the projected excess capacities of the water supply facilities to which connection will be made at present and for each phase through completion of the project,

(b.) any other commitments that have been made for this excess capacity,

(c.) a statement of the agency or firm's ability to provide services at all times during and after development.(This agency must be supplied with the water demand and supply tables in paragraphs A and B above).

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 17-F a, b, and c, dealing with projected excess capacity 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. No application for a Developer Permit has been made to the City of Sunrise.

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 1.2.3., the current adopted Level of Service standards are:

"The annual average daily flow shall not exceed 90 percent of design capacity of the combined treatment plants until buildout. The system shall maintain the capacity to produce and deliver 120 gallons per person per day".

Pursuant to the letter from Mr. Sean F. Dinneen, Acting City Engineer, dated April 18, 2005, the current Levels of Service are as follows:

The combined daily capacity of the three interconnected plants is 44,000,000 gallons per day, with a 2005 average daily demand of 27,490,000 GPD. The 2010 projected demand is 28,840,000 gallons per day per the City of Sunrise Water Collection Form.

PLANT CAPACITY				
Plant	**Capacity (GPD)***	**Current Demand (GPD)***	**Remaining Capacity (GPD)**	**Projected Demand 2010 (GPD)**
Springtree	24,000,000	-	-	Not available
Sawgrass	18,000,000	-	-	Not available
Southwest	2,000,000	-	-	Not available
Park City	5,000,000	0	5,000,000	Standby
TOTAL	49,000,000	27,490,000	21,510,000	28,840,000**

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

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

2. If service cannot be provided at all times during and after development, identify the required capital improvements, timing, cost, and proposed responsible entity for each phase in which service is unavailable.

Not applicable.

G. Please describe any water conservation methods or devices incorporated into the plan of development. What percentage of reduction is anticipated over conventional plans?

Water conservation measures which will be used include flush tanks in the hotel rooms, low flow faucets, low flow shower heads, the use of lake water rather than potable water for irrigation and the design of the irrigation system in accordance with xeriscape principles. Percent of water use reduction for each conservation measure varies greatly, so the overall percentage of water use reduction for the project will vary depending on final design. However, a numerical target for the percent of water use reduction for the project will be in the range of 5-10%.

H. Indicate whether proposed water service will be provided within an established service area boundary.

Even though the project is located within the municipal boundary of the Town of Davie it is also located within the City of Sunrise Regional Water Service area. The Town of Davie has no water distribution system in this area.

PLANNING & DEVELOPMENT
DEPARTMENT

CITY OF SUNRISE

Phone: (954) 746-327
Fax: (954) 746-328

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

Jim

82-0002

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

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:

Year	Average Day Flows (mgd)
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 Bonaventure – 1 MG Malaleuca – 2.3 MG Southwest – 1.5 MG Springtree – 9.0 MG Sawgrass – 5 MG Park City – 0.9 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:

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

FDEP Application Information

Springtree Utility Facility
4350 Springtree Drive, Sunrise, Fl 33351

Permit # FLA041947-002
ID# FLA041947

Permitted Capacity	9 MGD
Monthly Avg. Flow	8.38
3 Month Avg. Flow	8.23
EDU's	23,943
Outstanding Commitments	0.05

Park City Utility Facility
8700 SW 19th Place, Ft. Lauderdale, FL 33324
Sawgrass Utility Facility
14140 NW 8th Street, Sunrise, Fl 33325

Permit # FLA042641-002
ID # FLA042641

Permitted Capacity	20 MGD
Monthly Avg. Flow	14.3
3 Month Avg. Flow	13.75
EDU's	40,857
Outstanding Commitments	0.35

Southwest Utility Facility
15400 Watermill Road, Davie, Fl 33331

Permit # Doo6-201299
ID# 5006Po1422

Permitted Capacity	1 MGD
Monthly Avg. Flow	0.456
3 Month Avg. Flow	0.435
EDU's	1,303
Outstanding Commitments	0.02

Leigh Kerr

From: Ed Ellman [ed@cmsiconstruction.com]
To: Leigh Kerr
Sent: Friday, March 24, 2006 9:52 AM
Subject: Read: Boulevard Professional Center (TAI Proj. #06-2018)

This is a receipt for the mail you sent to
"Ed Ellman" <ed@cmsiconstruction.com> at 3/23/2006 5:42 PM

This receipt verifies that the message has been displayed on the recipient's computer at 3/24/2006 9:51 AM