## **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) 1,625,000 GSF of retail; (ii) 525,000 GSF of office; and (iii) 3,750 units of multifamily residential. No significant seasonal variations in demand are anticipated.

Table 17-1 Projected Average Daily Demand								
Phase/Land Use	Potable Water Demand (MGD)	Non-Potable \ Demand (M	Total Demand (MGD)					
-	Demand (MGD)	Irrigation*	Other	(IVIGD)				
Existing								
Vacant	0	0	0	0				
Proposed								
Retail	0.1625	0	0	0.1625				
Office	0.1050	0	0	0.1050				
Multi-Family	0.9375	0	0	0.9375				
Green Area		0.0199		0.0199				
TOTALS	1.2050	0.0199	0	1.2249				

<sup>•</sup> Irrigation proposed to be provided by the proposed on-site lake based on 0.1 ft. per week over the 31.96 acres of pervious area.

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	1,625,000 GSF	0.1 GPD/SF*	0.1625				
Office	525,000 GSF	0.2 GPD/SF*	0.1050				
Multi-Family	3,750 units	250 GPD/unit*	0.9375				
TOTALS			1.2050				

<sup>\*</sup> Potable water demands based on the Broward County Environmental Protection Department Consulting Engineer's Guide for a Wastewater Collection/Transmission System Construction License Application.

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 Coconut Creek. There will be no groundwater contributions to water supply. Irrigation will be provided by the on-site lakes (surface water) reclaimed water source, if available, 17-2 Revised November 2009 SIN2).

Table 17-3 Water Supply Sources								
Phase	Ground	Surface	Other	Total	Off-Site			
	Water	Water	(Specify)		Supply (MGD)			
Existing	0	0	0	0	0			
Proposed		0.0199		0.0199	1.2050			
Potable	0	0	0	0	1.2050			
Non-Potable	0	0	0	0	0			
Irrigation	0	0.0199	0	0.0199	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 Coconut Creek 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).

See <u>Attachment 17-1: Water Supply Verification Letter</u>, providing the information requested in ADA Question 17-F a, b, and c, dealing with projected excess capacity and existing commitments.

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 multifamily residential, 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. Percentage 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 the final design. However, a numerical target for the percentage 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.

The project is located within the municipal boundary of the City of Coconut Creek. Water service will be provided by the City of Coconut Creek.

## ATTACHMENT 17-1 WATER SUPPLY VERIFICATION LETTER

April 2, 2009

Mr. Raj Verma, Director of Utilities and Engineering City of Coconut Creek Utilities and Engineering Department 4800 West Copans Road Coconut Creek, FL 33063

RE: MAIN STREET AT COCONUT CREEK DRI CT&A PROJECT NO. 08-0049

Dear Mr. Verma:

We are in the process of preparing an application for a Development of Regional Impact (DRI) for a project covering approximately 158 acres in the City of Coconut Creek, Florida, in Section 18, Township 48 South, Range 42 East. The project is generally located at the northwest corner of the intersection of Sample Road and Lyons Road. The project is currently proposed to consist of a mixture of retail, office, and multi-family uses. Water and wastewater service for this project is anticipated to be provided by the City of Coconut Creek.

In connection with our work on the DRI for this project, we will need specific existing and proposed water and wastewater plant capacity information as well as current and projected demand. For your ease in providing us this information, we are enclosing copies of Question 17 - Water Supply and Question 18 - Wastewater Management, which we will need to answer. Specifically, we would like to request your help with Questions 17-F and 18-C.

We have attached a location map for the project for your use. Would you please review and update this information and return an updated copy for our use. If you have any questions or comments on this request or need additional information, please contact me directly to discuss them.

Very truly yours,

CRAVEN THOMPSON & ASSOCIATES, INC.

PAULA H. HOLLIHAN, P.E.

Senior Engineer

PHH/mrn

Attachment

cc: Matt Novack

CREVEN THOMPSON



& ASSOCIATES INC.

Engineers Planners Surveyors

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West Palm Beach