



**BLACK & VEATCH**  
Building a world of difference®

October 7, 2010

Mr. Nolin W. Moon, P.E.  
Engineering Specialist III  
Florida Department of Environmental Protection  
South District  
P.O. Box 2549  
Fort Myers, Florida 33902-2549

**RECEIVED**

OCT 07 2010

D.E.P. South District

Re: Lee County – DW  
Central Wastewater Treatment Facility  
Application No. FL0021261-020  
Caloosahatchee Basin



**OCULUS**  
South District

Dear Mr. Moon,

We are in receipt of your letter dated September 10, 2010 with your review comments on the wastewater permit application for the above referenced facility. Please consider the following responses to your comments during your further review of the application. We have restated each comment below and included our response in bold, italics.

1. Please explain how the City intends to comply with the Southwest Florida Regional Planning Council Resolution #2007-02. A copy of the resolution is included with this letter.

*The Central Advanced Wastewater Treatment Facility (AWWTF) is designed to provide treatment beyond the secondary treatment required to discharge to Class III marine waters, as stated in section 3 of the resolution. During the current permit cycle, the reclaimed water production capacity was expanded by 200% from 2 MGD to 6 MGD. The Central AWWTF historically performs at a much higher level of treatment than is required in the operating permit. The following chart depicts the daily loadings for TSS, CBOD<sub>5</sub>, Total Nitrogen, and Total Phosphorus allowed by the WQBEL based operating permit and the actual annual average daily discharge of each compound to the Caloosahatchee River.*

	<i>Permit Allowance (pounds/day)</i>	<i>Annual Average Daily Discharge (pounds/day)</i>
<i>Total Suspended Solids (TSS)</i>	<i>2,754</i>	<i>110</i>
<i>CBOD<sub>5</sub></i>	<i>2,295</i>	<i>63</i>
<i>Total Nitrogen</i>	<i>275</i>	<i>53</i>
<i>Total Phosphorus</i>	<i>46</i>	<i>5</i>

***The chart data clearly illustrates that the Central AWWTF is operated to discharge only a small percentage of the permitted amount of these compounds. The Central AWWTF has an excellent history of pH, disinfection and de-chlorination compliance as well.***

***During the current permit cycle, the Central AWWTF completely ceased the land application of biosolids and entered into an agreement with a third party to treat the biosolids at a Residuals Management Facility (RMF). Should the capacity of the RMF be exceeded, the biosolids will be landfilled to prevent the possibility of runoff or contamination occurring via land application sites.***

***All reclaimed water distributed by the Central AWWTF meets the TSS and high rate disinfection levels stated in the resolution.***

2. Please refer to Page 2A-14, Item 13. Please complete the table. [Form 62-620.910(2), Instructions]

***A revised table for Item 13, on page 2A-14, is included as an attachment to this letter.***

3. Please refer to Page 2A-23. Please describe the industrial wastewater from Crews Environmental that your facility treats. [62-620.300(4), FAC]

***The wastewater produced by Crews Environmental is treated before being sent to the Central AWWTF. The parameters of concern include: phenols, BOD, COD, TSS, Total Nitrogen, Total Phosphorus, oil & grease, MBAS, and pH.***

4. Your application includes a request for mixing zones for chlorodibromomethane and dichlorobromomethane. After reviewing the discharge monitoring reports, it is evident that the trihalomethanes are generated at the wastewater treatment facility. Please state what steps have been made to reduce the trihalomethane levels in the effluent. [62-4.244(1)(f), FAC]

***The Central AWWTF removes TSS from the wastewater to a level far beyond the operating permit requirements. This has been done to minimize the level of organics available to be converted to trihalomethanes when combined with chlorine for disinfection. The Central AWWTF has many days during the year when there is little or no discharge to surface waters due to the production of reclaimed water.***

5. Please refer to the grit removal system on the Process Flow Diagram. Please clarify where the water that is removed by the system is discharged. [62-600.740(2)(a), FAC]

***Water that is removed from the grit removal system flows to a side stream pump station which discharges to the fermentation tank. This discharge is located downstream of influent sampling and flow measurement.***

6. Please refer to the Capacity Analysis Report. Please base the projection of future flow on population growth rates and water consumption. [62-600.405(6), FAC]

***The City intends to base load the Central AWWTF with a constant flow and handle future flow increases at the South AWWTF. A revised figure 3-1 is included, as an attachment to this letter, which deletes the future downward projection trend.***

7. The Department has been receiving quarterly groundwater monitoring reports associated with the City's permit number (FL0021261-010-DW1, City of Fort Myers Central WWTP Reuse Transmission – Heritage Palms). These wells are referenced on Page 5 of the Heritage Palms Groundwater Monitoring Plan that was resubmitted with this application. Submitted sampling results indicate that the groundwater monitoring rule requirements contained in Rule 62-550.310, F.A.C. have been exceeded. Please explain what actions you will take regarding the detections of fecal coliform bacteria in these monitor wells.

***Although the sampling results submitted to FDEP reference the City of Fort Myers permit number, these samples and monitor wells are not part of the City's groundwater monitoring plan defined in the operating permit.***

8. The Department performed a site inspection on July 30, 2010 to determine the overall condition of the ground water monitoring plan wells for City of Fort Myers Central WWTP. As a reminder, please respond to the letter (dated 08/03/2010) within the specified time period.

***The response was sent to the FDEP on 8/31/2010.***

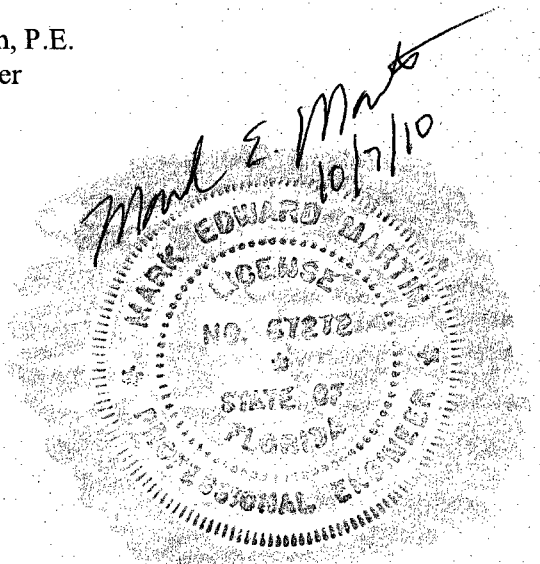
Very Truly Yours,

BLACK & VEATCH

*Mark E. Martin*

Mark E. Martin, P.E.  
Project Manager

cc: Saeed Kazemi, P.E., City of Fort Myers  
Kevin Wagner, City of Fort Myers



**13. Additional Application Information for Applicants with a Design Flow Greater Than or Equal to 0.1 mgd**

**a. Effluent Testing Data**

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	MDL/PQL
	Conc.	Units	Conc.	Units	Number of Samples		
<b>CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.</b>							
AMMONIA (as N)	1.2	mg/L	0.11	mg/L	254	SM-4500NH3-	.01/.04
CHLORINE (TOTAL RESIDUAL, TRC)	U	mg/L	0.005	mg/L	365	SM-4500CI-E	.01/.04
DISSOLVED OXYGEN	5.3 (min)	mg/L	5.6	mg/L	365	EPA 360.1	.1/.1
TOTAL KJELDAHL NITROGEN (TKN)	3.7	mg/L	0.81	mg/L	254	EPA 351.2	.05/.2
NITRATE PLUS NITRITE	2.3	mg/L	0.51	mg/L	254	EPA 353.3	.01/.04
NITROGEN	3.73	mg/L	1.32	mg/L	254		
OIL and GREASE	1.3 I	mg/L	N/A	N/A	N/A	EPA-1664	1/4
PHOSPHORUS (Total)	1.43	mg/L	0.15	mg/L	254	EPA 365.4	.01/.04
TOTAL DISSOLVED SOLIDS (TDS)	N/A		N/A				
OTHER PARAMETERS							

**b. Inflow and Infiltration**

Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration 637,500 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

The City has a multimillion dollar, multi-phase capital improvement project underway to replace old and deficient collection system components. This is ongoing.

**c. Operation/Maintenance Performed by Contractor(s).**

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor?  Yes  No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: \_\_\_\_\_

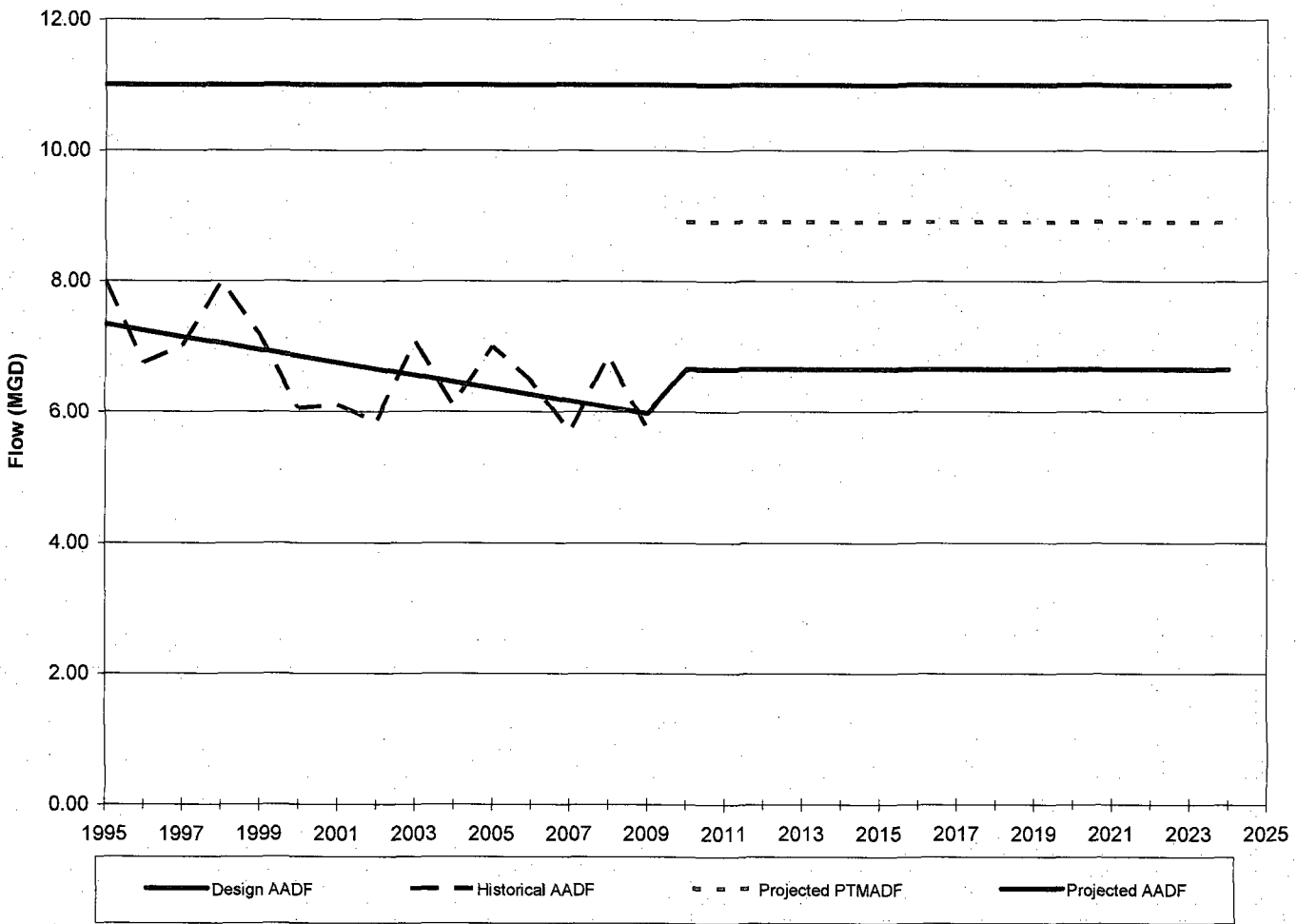
Mailing Address: \_\_\_\_\_

\_\_\_\_\_

Telephone Number: \_\_\_\_\_

Responsibilities of Contractor: \_\_\_\_\_

**Section 3 - Projected Conditions**



**Figure 3-1**  
**City of Ft. Myers Central AWWT Facility**  
**Projected AADF and PTMADF**