WASTEWATER MANAGEMENT

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.

Table A-1, Wastewater Generation Rates for Each Phase of Development for Restoration May 2008, shows the projected wastewater generation for the combined development within the City of Edgewater. Generation rates are based standard unit flows provided by the City of Edgewater (E), as respectively shown in Table A-2, Wastewater Generation Rates City of Edgewater August 23, 2006.

Table A-1 DRI
Wastewater Generation Rates for Each Phase of Development
May, 2008

Phase/Land Use	Wastewater Generation (MGD)	On-Site Wastewater Treatment (MGD)	Off-Site Wastewater Treatment (MGD)
Phase 1 (2007-2013)			
Single-Family Residential	0.631	0	0.631
Multifamily Residential	0.147	0	0.147
Commercial/Retail - General	0.033	0	0.033
Office	0.025	0	0.025
Phase 1 Subtotals	**0.836**	**0**	**0.836**
Phase 2 (2014-2018)			
Single-Family Residential	0.299	0	0.299
Multifamily Residential	0.264	0	0.264
Commercial/Retail - General	0.071	0	0.071
Office	0.109		0.109
School	0.006	0	0.006
Phase 2 Subtotals	**0.749**	**0**	**0.749**
Phase 3 (2019-2023)			
Multi-family	0.593	0	0.593
Commercial/Retail – General	0.067	0	0.067
Office	0.059	0	0.059
Phase 3 Subtotals	**0.719**	**0**	**0.719**
PROJECT TOTALS	**2.304**	**0**	**2.304**

Note: Wastewater Treatment may be provided in a plant to be constructed on a portion of the site to be conveyed to the City of Edgewater. As such, the facility is considered to belong to the City of Edgewater and to be on Edgewater property and is therefore treated as if off-site.

Table A-2
Wastewater Generation Rates
City of Edgewater
August 23, 2006

Land Use	Wastewater Generation Rate
Single-Family Residential	237.5 gpd/du
Multifamily Residential	237.5 gpd/du
Commercial/Retail - General	0.08 gpd/sf
Commercial/Retail - Food Service	0.625 gpd/sf
Office	0.125 gpd/sf
Golf Course and Amenities	0.25 gpd/sf
Park (Rest Rooms)	237.5 gpd/rest rm
School Elementary	7.84 gpd/student
School Middle	17.81 gpd/student

Reference: City of Edgewater Comprehensive Plan

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 uses(s).

There are no proposed industrial uses within the project. Any individual commercial or medical uses generating wastewater components that are not acceptable as domestic waste are required to provide on-site separation or other pretreatment operations specific to the specific waste components generated in compliance with FDEP pretreatment criteria.

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. Please also provide a statement of future proposals or existing ability to provide the level of treatment necessary to provide irrigation quality water.

A statement from the City of Edgewater evidencing their intention and ability to supply water and sewer services for the proposed development has been received. A copy of the request is attached. If and as necessary, the Applicant will work with the City to assist them in providing facilities to serve the project. Any such facilities would be owned, operated and maintained by the respective utility provider. Any such facilities are considered to be as if they were off-site facilities belonging to the provider.

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.

Please refer to letters from the City of Edgewater.

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 will not be used for the developed project. Temporary septic tank systems may be utilized to support temporary facilities such as construction offices and sales offices. In all such situations, proper permitting and construction practices will be followed.

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

The recently issued St. Johns River Water Management District Consumptive Use Permit includes the proposed service area of Restoration and its associated demand. In addition, the applicant has provided sites for four (4) new potable wells for Edgewater which are also a part of the CUP permit.

THE CITY OF EDGEWATER

POST OFFICE BOX 100 • EDGEWATER, FLORIDA 32132-0100

December 21, 2006

Mr. Jack Weinstein, P.E.
Donald W. McIntosh Associates, Inc.
2200 Park Avenue North
Winter Park, Florida 32789-2355

RE: Restoration DRI
Water and Wastewater Capacity Availability

Dear Mr. Weinstein:

I have attached the City of Edgewater's response to your letters of August 30, 2006 regarding water and wastewater capacity availability for the Restoration DRI. Brad Blais of Quentin L. Hampton Associates, Inc. has prepared this response following the meeting with John Florio, you, and myself at the City to discuss these matters. I hope this information will be helpful to you in preparing for the meeting scheduled in the City of Edgewater City Hall Conference Room at 11:00 a.m., January 11, 2007, with Don Mears, John Florio, Brad Blais and myself to further discuss water and wastewater issues facing Restoration.

If you have any further questions or need additional information prior to the January 11, 2007 meeting, please contact me at your convenience.

Yours truly,

Terry A. Wadsworth

Terry A. Wadsworth
Director of Environmental Services
386-424-2460

cc: Jon Williams, City Manager
Darren Lear, Director of Development Services
Brad Blais, Quentin L. Hampton Associates, Inc.

TAW:dmn

RICHARD W. FERNANDEZ, P.E.
MARK A. HAMPTON, P.E.
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Quentin L. Hampton Associates, Inc
Consulting Engineers
P.O. DRAWER 290247
PORT ORANGE, FLORIDA 32129-0247

December 14, 2006

Terry Wadsworth
Director of Utilities
City of Edgewater
PO Box 100
Edgewater, FL 32032

'RESTORATION' D.R.I. RESPONSES

Dear Terry:

We are in receipt of questions from the developer's engineers questions regarding wastewater and water capacity. The questions, dated August 30, 2006, are attached. Responses to the referenced items are detailed below:

WATER CAPACITY AVAILABILITY

Item #17E. The City of Edgewater will own and maintain the internal water supply system after completion of the development.

Item #17F.1(a) The City of Edgewater Alan R. Thomas WTP, PWS #3640331, is an enhanced lime softening facility. It has a permitted capacity of 5.0 MGD and currently operates at an average daily flow of approximately 2.10 MGD. The current committed capacity is 2.6 MGD, as of 12/15/06.
The water plant has approximately 2.4 MGD excess capacity at this time.

The City of Edgewater's raw water supply is obtained entirely from groundwater sources. Groundwater from the Floridan Aquifer is regulated by St. John's River Water Mgt. District (SJRWMD) under the Consumptive Use Permit (CUP) process. The City's CUP renewal application is currently under review..

The requested allocation increases each year based upon estimated population increases. The tabulated values represent estimates which reflect historical growth patterns and reasonable expectations for future growth trends. SJRWMD prepares independent population

projections and water use estimates which do not necessarily reflect the City's estimates or requests.

The 2006 allocation request is 2.21 mgd, the 2025 allocation request is 3.49 MGD. The allocation request is subject to 5 year evaluations, and potential modification, based upon actual utilization. Increased allocation requests would entail permit modification and revised groundwater modeling and environmental monitoring plans.

Based upon the developer's Potable water demand estimates, Table 17.A.1.E, the City has a groundwater allocation request which is sufficient to serve estimated Phase I demands only. Estimated potable water demands for Phases 2 and 3 entail an additional 1.49 MGD.

The referenced values do not reflect non-potable demands. The developer estimates a need for 0.838 MGD in Phase I and an additional 0.91 MGD for Phases 2 and 3, combined. Reclaimed water and/or stormwater sources will be required to satisfy non-potable water demands.

17F.1(b) The City has current average daily flows of approximately 2.10 MGD and outstanding commitments of approximately 0.5 MGD. The total committed capacity is approximately 2.6 MGD.

17F.1(c) The City intends to serve the proposed developments potable water demands. The City has adequate treatment capacity to meet the developments estimated demands. The treatment plant may also be expanded in the future to meet additional demands.

Based upon the City's pending CUP application, the City's groundwater allocation request is capable of satisfying the developer's estimated Phase I potable water demands. Modification of the City's CUP and/or implementation of alternative water supplies may be necessary in order to meet estimated Phase 2 and 3 demands.

Reclaimed water and/or stormwater sources will be required to satisfy projected non-potable demands.

17F.2 As stated in responses to Items 17F.1 (a,b and c), the City's current 2025 CUP allocation is 3.49 MGD. The pending CUP application has a 20 year requested duration. The current allocation request is sufficient to satisfy estimated potable demands in Phase 1 of the proposed development. The allocation is subject to revision every 5 years.

In order to serve Phases 2 and 3 of the proposed development, it will

be necessary to modify the City's CUP. The modification may require implementation of alternative water supply techniques or recharge enhancement programs to obtain additional water supplies.

Providing potable water service will require specific utility infrastructure components within the proposed development, in addition to distribution mains and components normally associated with residential and commercial developments. The specific components are as follows:

- Four (4) well sites, (50' x 50')
- Water storage tank and pump station site

17H. The proposed utilities and water service areas are within an established utility service area. There are no current disputes regarding adjacent utility service area boundaries.

WASTEWATER CAPACITY AVAILABILITY

18C.1 The City's existing wastewater treatment facility has a permitted capacity of 2.75 MGD. Current annual average flows at the facility are approximately 1.15 MGD. The committed capacity is 1.6 MGD. The City has approximately 1.15 MGD additional treatment capacity which is currently available to serve future developments. The existing site has no capacity for additional expansion.

The City intends to provide wastewater and reclaimed water service within the proposed development. Utility master planning efforts performed by the City set forth recommendations wherein availalbe capacity in the existing WWTP will be reserved for future development east of I-95. This is largely a function of hydraulic capacity within the City's sewage collection and transmission system.

Future wastewater generated in new development west of I-95 will be treated in a satellite treatment facility, sited west of I-95. From a utility master planning perspective, siting a proposed treatment facility in the same proximity of the sewage sources and reuse demand provides efficiency with respect to sewage collection/transmission and reclaimed water distribution.

18C.2 In order to provide wastewater service within the proposed development, a site for a satellite WWTP will be required within the DRI. The proposed facility will be a 2.0 MGD facility, with

expansion capacity to 3.0 MGD. Reclaimed water storage and pumping facilities will also be located on the same site as the WWTP. A total site area of approximately 8 – 10 acres are required for the described facility.

In order to accommodate phasing plans, it may be possible to provide wastewater treatment capacity at the existing WWTP, on a temporary basis. Costs for wastewater transmission would be borne by the developer.

18E. The proposed wastewater service will be provided within an established service area. There are no disputes with adjoining utility providers regarding service area boundaries.

The responses detailed above represent our firm's recommendations regarding the City's utility service potential and limitations for water and wastewater service. We are available at your convenience to discuss this project in greater detail.

Regards,

Brad T. Blais, P.E.
Vice President

btb