

18. 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.**

A table is presented below with all wastewater generation sources:

TABLE 18-1 WASTEWATER FLOWS				
Land Use	Number of Units	Sewage Loading (GPD/Unit)	Sewage Flows (MGD)(*)	Peak Sewage Flows (MGD)
Single Family, detached	1,257 du	350 gpd/unit	0.440	1.210
Single Family, attached	2,436 du	250 gpd/unit	0.609	1.675
Multi-Family	3,248 du	200 gpd/unit	0.650	1.788
Retail	200,000 sf	5/100 gpd/sf	0.010	0.028
Office	100,000 sf	10/100 gpd/sf	0.010	0.028
Industrial – Flex Space	550,000 sf	20/1000 gpd/sf	0.011	0.030
School				
K-8	3,200 stud.	15 gpd/stud	0.048	0.132
High School	1,600 stud.	15 gpd/stud.	0.024	0.066
Staff	360	15 gpd/person	0.005	0.014
Hospital	200 beds	250 gpd/bed	0.050	0.138
Community Uses	50,000 sf	10/100 gpd/sf	0.005	0.014
Parks	67 acres 200 per./day	5 gpd/person	0.001	0.003
Total			1.863 MGD	5.123 MGD

Source: Ford Engineers, Inc.

(*) MGD= Millions of Gallons per Day

The Average Daily Flow (A.D.D.) is 1.863 MGD
 The Peak Sewage Flow (275% of A.D.D.) is 5.123 MGD

Rates were obtained from Miami-Dade County sewage flows used by the Miami-Dade County Water and Sewer Department (Miami-Dade County Code Section 24-43 (5) Sewage Loading).

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

No pretreatments are anticipated.

- 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.

Offsite treatment will be provided by Miami-Dade County Water and Sewer Department. A letter to Miami-Dade Water and Sewer requesting the above information is included in Exhibit 18-1. A response letter from Miami-Dade Water and Sewer is also included.

- 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.**

To be determined. Parkland is planning to install an on-site reuse treatment facility to provide irrigation water to the project. It is expected that approximately 25% of the wastewater will be captured and used for reuse. The cost and operating entity will be determined during permitting and design.

- 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.**

No septic tanks are proposed. The project in its entirety will be served by public sanitary sewer lines.

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

If the project is brought within the Urban Development Boundary, Miami-Dade Water and Sewer Department has the closest points of connection and would be the agency to provide service.

Exhibit 18-1
Letters to and from Service Providers



- ADA Coordination
- Agenda Coordination
- Art in Public Places
- Audit and Management Services
- Aviation
- Building Code Compliance
- Building
- Business Development
- Capital Improvements
- Citizen's Independent Transportation Trust
- Communications
- Community Action Agency
- Community & Economic Development
- Community Relations
- Consumer Services
- Corrections & Rehabilitation
- Countywide Healthcare Planning
- Cultural Affairs
- Elections
- Emergency Management
- Employee Relations
- Enterprise Technology Services
- Environmental Resources Management
- Fair Employment Practices
- Finance
- Fire Rescue
- General Services Administration
- Historic Preservation
- Homeless Trust
- Housing Agency
- Housing Finance Authority
- Human Services
- Independent Review Panel
- International Trade Consortium
- Juvenile Assessment Center
- Medical Examiner
- Metropolitan Planning Organization
- Park and Recreation
- Planning and Zoning
- Police
- Procurement Management
- Property Appraiser
- Public Library System
- Public Works
- Safe Neighborhood Parks
- Seaport
- Solid Waste Management
- Strategic Business Management
- Team Metro
- Transit
- Urban Revitalization Task Force
- Vizcaya Museum and Gardens
- Water and Sewer**

June 28, 2006

Mr. Rob Curtis
The Curtis Group
7520 Red Road
South Miami, FL 33143

Re: Parkland Development of Regional Impact (DRI)

Dear Mr. Curtis:

This letter is in response to your June 8, 2006 request regarding the Department's capability of providing water and sewer services for the above named project.

As noted on your letter, the Parkland DRI consist of 960 acres bounded by SW 136th Street on the north, SW 162nd Avenue on the east, SW 152nd Street on the south, and SW 177th Avenue on the west. This project is outside the Urban Development Boundary (UDB), and the Department's Water and Wastewater Master Plans do not include infrastructure to provide service outside the UDB. Please note that the County's Comprehensive Development Master Plan (CDMP) indicates that urban infrastructure is discouraged outside the UDB.

Thank you for the opportunity to provide these comments to you. Should you have any questions, please call me at (786) 552- 8120.

Sincerely,

Bertha M. Goldenberg, P.E.
Associate Director
Planning and Performance Measurement



June 8, 2006

VIA EMAIL & MAIL

Ms. Maria Valdes
Miami-Dade Water and Sewer Department
3071 S.W. 38th Avenue
Room 554-30
Miami, Florida 33146

**Re: Parkland DRI
Sanitary Sewer Service**

Dear Ms. Valdes:

In accordance with Chapter 380.06, Florida Statutes, regarding Developments of Regional Impact (DRI), we are required to obtain information from Miami-Dade Water and Sewer Authority on its ability to provide the proposed Parkland development with sanitary sewer services.

Lennar Homes is seeking to develop a mixed-use project in unincorporated Miami-Dade County. **Parkland DRI** consists of 960 acres bounded by SW 136 Street on the north, SW 162 Avenue on the east (generally), SW 152 Street on the south (generally) and SW 177 Avenue on the west.

Enclosed for your use are the following:

- Aerial Photograph showing project location
- Table 1 describing the proposed development program
- Table 2 describing water demand rates

Please indicate in your response whether the present facilities and staffing are capable of serving the Project or specifying the additional staffing/equipment necessary to serve the development.

I respectfully request your written response as soon as possible, since this will be an integral part of the DRI application process. Your prompt attention to this matter is greatly appreciated.

If you have any questions, please do not hesitate to contact me at (305) 663-5800.

Sincerely,



Alicia Corral
The Curtis Group

Development Program

The Applicant proposes development of the following mix of uses:

Parkland DRI Development Program Revised June 29, 2006	
Land Use	Units
Residential	
Single Family	1,700 du
Townhouse	2,250 du
Condominium (MF)	<u>2,850 du</u>
Total	6,800 du
Retail	200,000 sf 20 acres
Industrial – Flex space	550,000 sf 33 acres
Schools	K-8 – 3,200 students High School – 1,600 students
Hospital	200 beds
Medical Office	100,000 sf 15 acres
Community Uses	50,000 sf
Library, Police, Fire	5 acres
Parks	46 acres

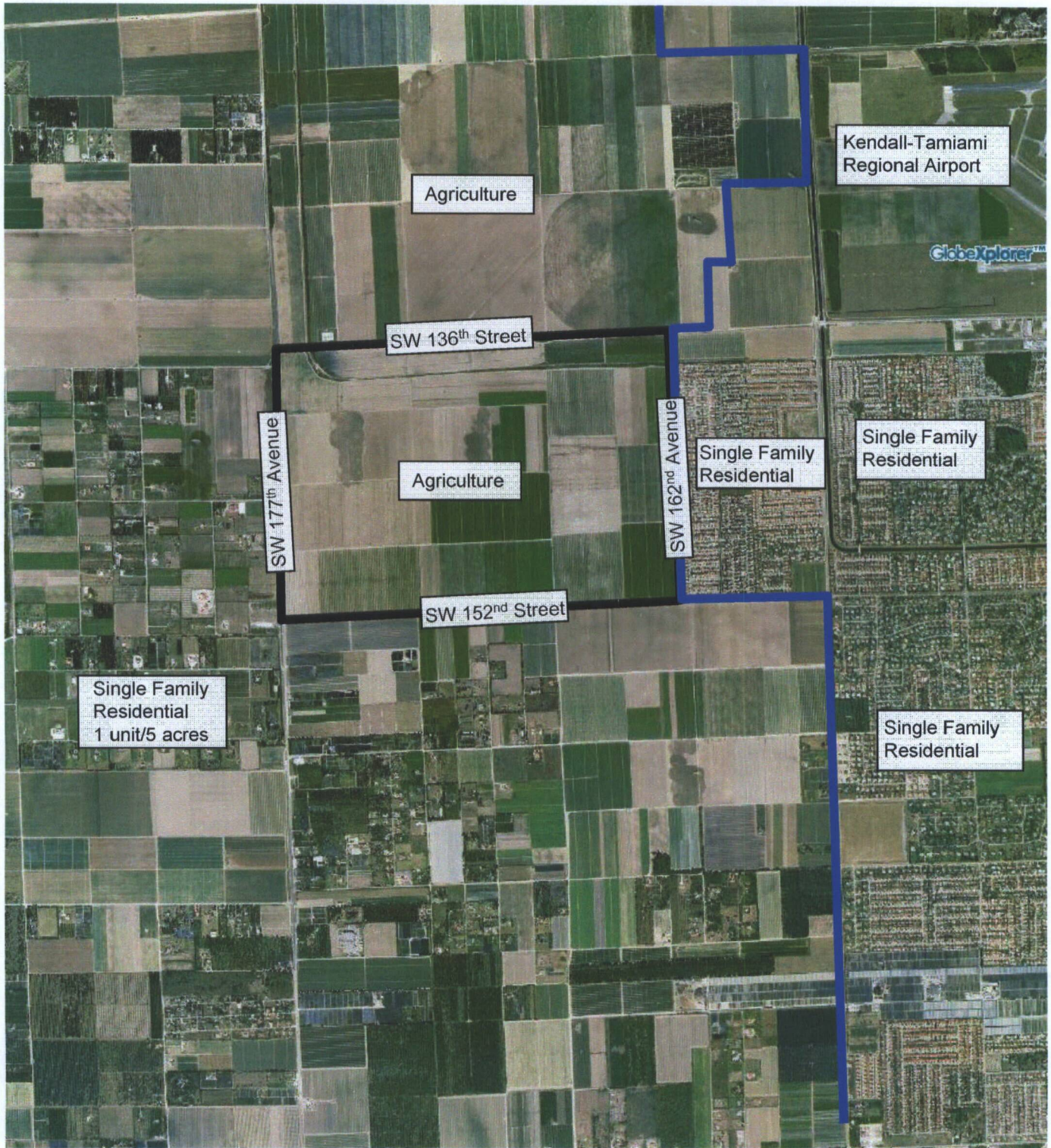
The following table shows water demand for the project:

TABLE 17-1 WATER DEMAND Revised June 29, 2006				
Land Use	Number of Units	Water Use (GPD/Unit)	Potable Water Demand (MGD)(*)	Maximum Water Demand (MGD)
Single Family, detached	1,700 du	350 gpd/unit	0.595	1.339
Single Family, attached	2,250 du	250 gpd/unit	0.563	1.267
Multi-Family	2,850 du	200 gpd/unit	0.570	1.283
Retail	200,000 sf	5/100 gpd/sf	0.010	0.023
Office	100,000 sf	10/100 gpd/sf	0.010	0.023
Industrial – Flex Space	550,000 sf	20/1000 gpd/sf	0.011	0.025
School				
K-8	3,200stud.	20 gpd/stud	0.064	0.144
High School	1,600 stud.	20 gpd/stud.	0.032	0.072
Staff	360	15 gpd/person	0.005	0.011
Hospital	200 beds	250 gpd/bed	0.05	0.113
Community Uses	50,000 sf	10/100 gpd/sf	0.005	0.011
Parks	46 acres	5 gpd/person	0.001	0.002
Total			1.916 MGD	4.311 MGD



Source: Ford Armenteros

(*) MGD= Millions of Gallons per Day

The Average Daily Demand (A.D.D.) is 1.916 MGD
 The Maximum Daily Demand (225% of A.D.D.) is 4.311 MGD
 The Peak Hour Demand (450% of A.D.D.) is 0.359 MGH



Legend

-  Site Location
-  2005 Urban Development Boundary

Map D
 Existing Land Use Map
 Parkland
 October 2005