

14. WATER

- A. Describe the existing hydrologic conditions (both ground and surface water) on and abutting the site, including identification and discussion of any potential aquifer recharge areas. Please identify and describe any Outstanding Florida Waters, Wild and Scenic Rivers, Florida Aquatic Preserves or Florida Class I or II Waters that occur within, abutting or downstream of the site.

There are no surface waters on the Project site. The nearest surface waters are two nearby canals, L-31N and C-1W. **Map 14-1** shows the locations of these two canals relative to this DRI.

The nearest Outstanding Florida Water (OFW) is Everglades National Park, located about 1.5 miles west of this DRI. Biscayne Bay Aquatic Preserve, approximately thirteen miles east of this DRI, is another OFW. Both of these OFW's are shown on **Map 14-2**. There are no Wild and Scenic Rivers or Class I or II surface waters in this part of south Florida.

Map 14-3 shows the location of the subject DRI in relation to the recharge zones for Biscayne Aquifer. This DRI is in the 42"-60" annual recharge zone.

Maps 14-4 and **14-5** show the average annual ground water level and the average October (high) ground water levels, respectively, for the subject DRI. The average ground water level is between +4.5' and +5.0' NGVD. The average October ground water level is between +5.5' and +6.0' NGVD.

- B. Describe, in terms of appropriate water quality parameters, the existing ground and surface water quality conditions on and abutting the site. (The appropriate parameters and methodology should be agreed to by the regional planning council and other reviewing agencies at the pre-application conference stage.)

Surface water quality can best be quantified using Miami-Dade County Department of Environmental Resources Management (DERM) data. The nearest station for which data are available is Station BL12 in Canal C1-W where it crosses Krome Avenue, approximately 3/4 mile north of the DRI boundary as shown on **Map 14-1**. Descriptive statistics for a sample of parameters are presented in **Table 14-1** below.

TABLE 14-1 WATER QUALITY PARAMETERS STATION BL12				
Coliforms				
Parameter	N	Units	Median Value	
Fecal Coliform	162	cfu/100ml	10	
Fecal Strep	19	cfu/100ml	40	
Total Coliform	161	cfu/100ml	30	
Parameter	N	Units	Mean	Std. Dev.
Specific Conductiv.	490	Fmhos/cm	855.7	3610.8
Dissolved Oxygen	491	mg/l	1.4	1.5
BOD-5	51	mg/l	2.6	2.2
COD	55	mg/l	38.7	12.9
Chloride	22	mg/l	66.9	20.2
Turbidity	146	NTU	1.4	1.0
Oil & Grease	10	mg/l	4.2	2.0
Nutrients				
Parameter	N	Units	Mean	Std. Dev.
Ammonia-N	153	mg/l	0.36	0.15
Nitrate-Nitrite	144	mg/l	0.03	0.06
Nitrate-N	13	mg/l	0.03	0.03
Nitrite-N	10	mg/l	0.02	0.02
Phosphorous	155	mg/l	0.02	0.03
Ortho Phosphate	82	mg/l	0.01	0.02
TKN	71	mg/l	1.14	0.35
Metals				
Parameter	N	Units	Mean	Std. Dev.
Arsenic	20	µg/l	5.47	3.67
Barium	19	µg/l	57.2	38.03
Cadmium	74	µg/l	0.19	0.33
Chromium	22	µg/l	3.67	4.07
Copper	74	µg/l	3.36	5.27
Mercury	23	µg/l	0.49	0.72
Nickel	12	µg/l	3.54	1.16
Zinc	68	µg/l	6.12	8.36
Lead	74	µg/l	2.35	1.65
Source: Miami-Dade County DERM				

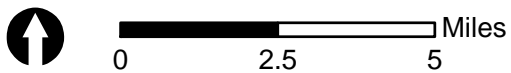
- C. Describe the measures which will be used to mitigate (or avoid where possible) potential adverse effects upon ground and surface water quality, including any resources identified in Sub question A.**

On-site retention of storm water will prevent any adverse effects on surface waters beyond the limits of the proposed development, since there will be no off-site discharge. The proposed drainage improvements, including detention swales and exfiltration trenches will cleanse storm water before it is returned to the ground water table, or discharged to on-site lakes in accordance with SFWMD and DERM requirements.

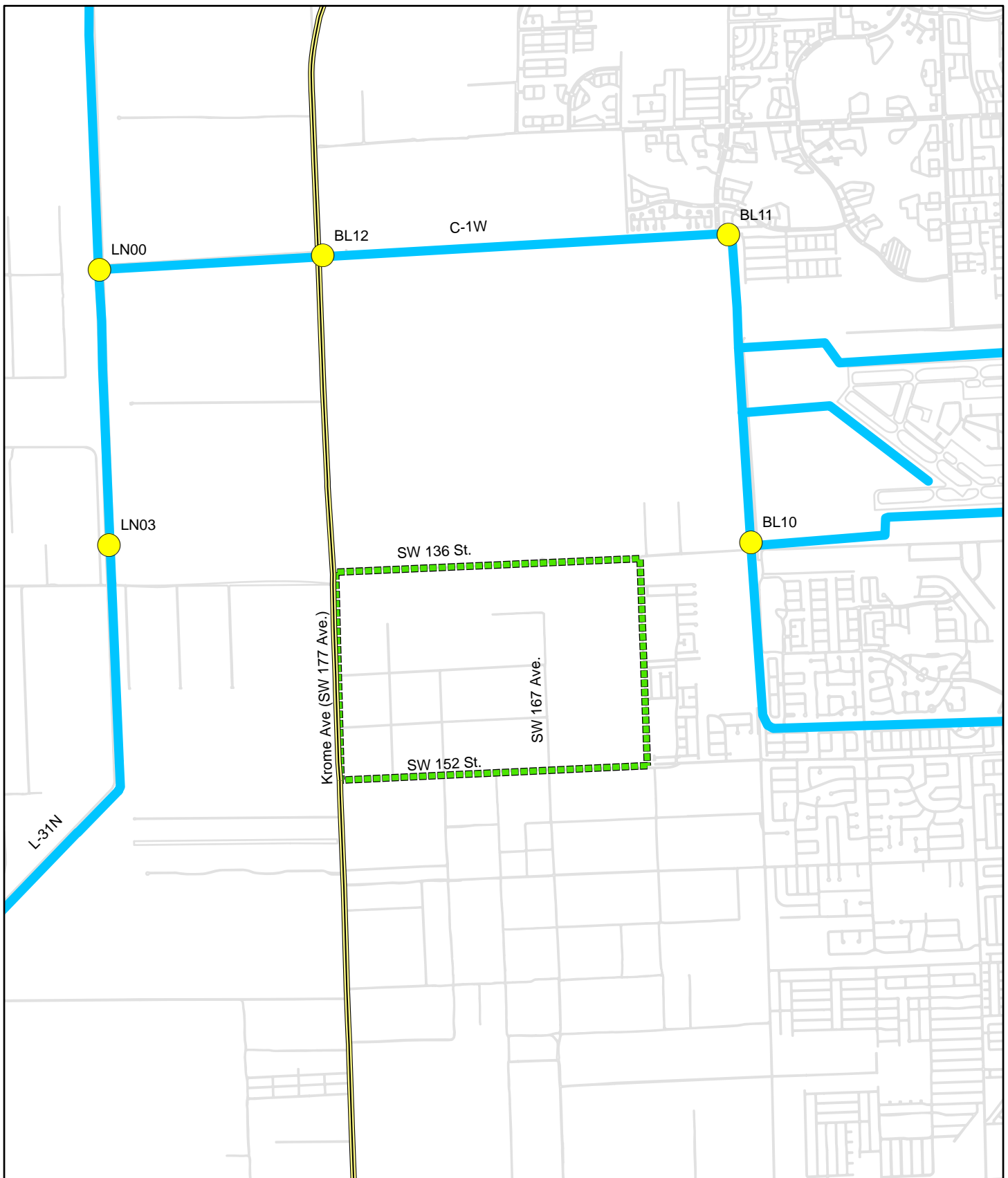


Legend
 ■ DRI Boundary

Map 14-2
Outstanding Florida Waters



Parkland
 August 2006



Legend

● DERM Water Quality Stations ■ DRI Boundary

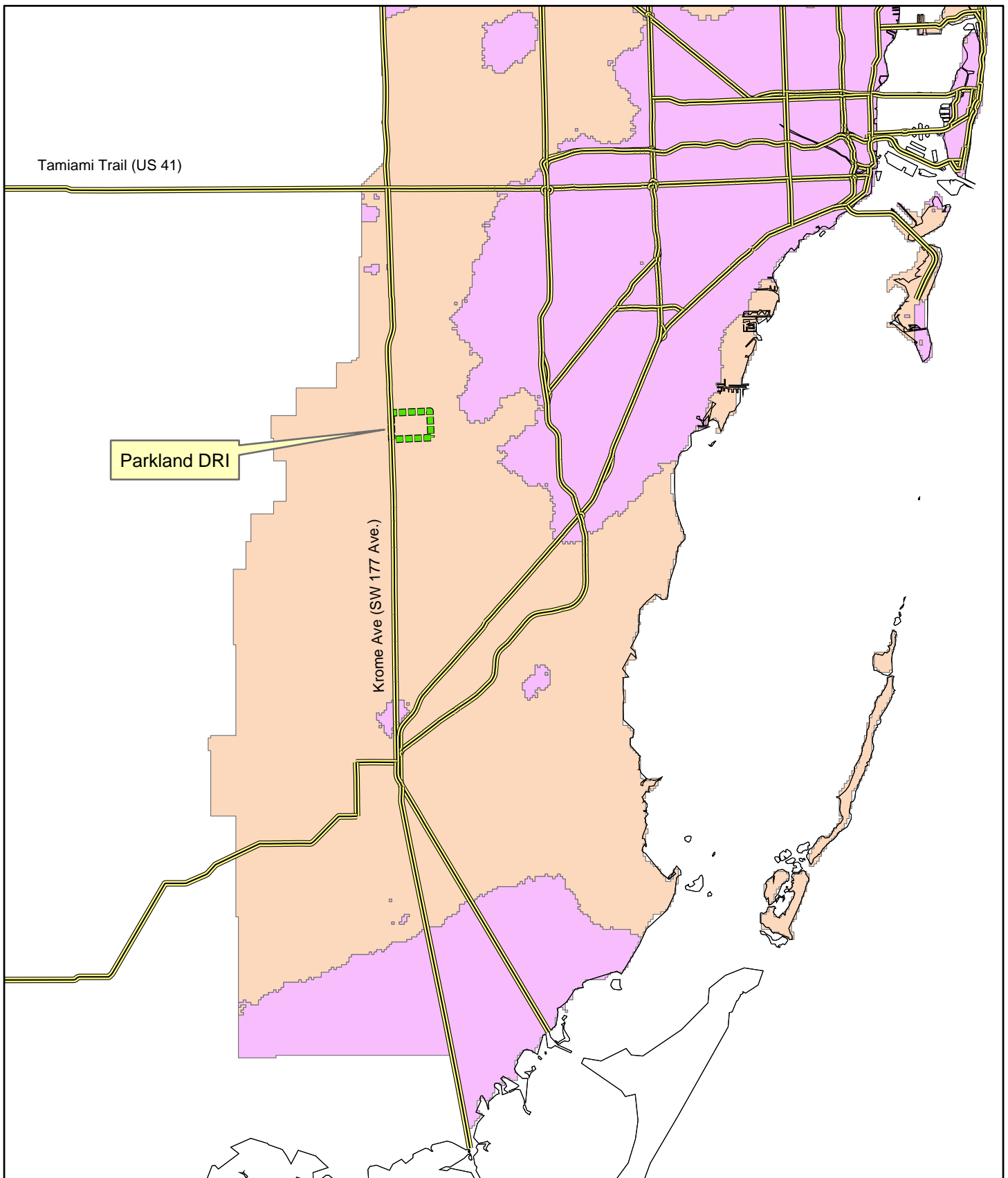
— Canals



0 0.25 0.5 Miles

Map 14-1
Canals & Water Quality Stations

Parkland
 August 2006



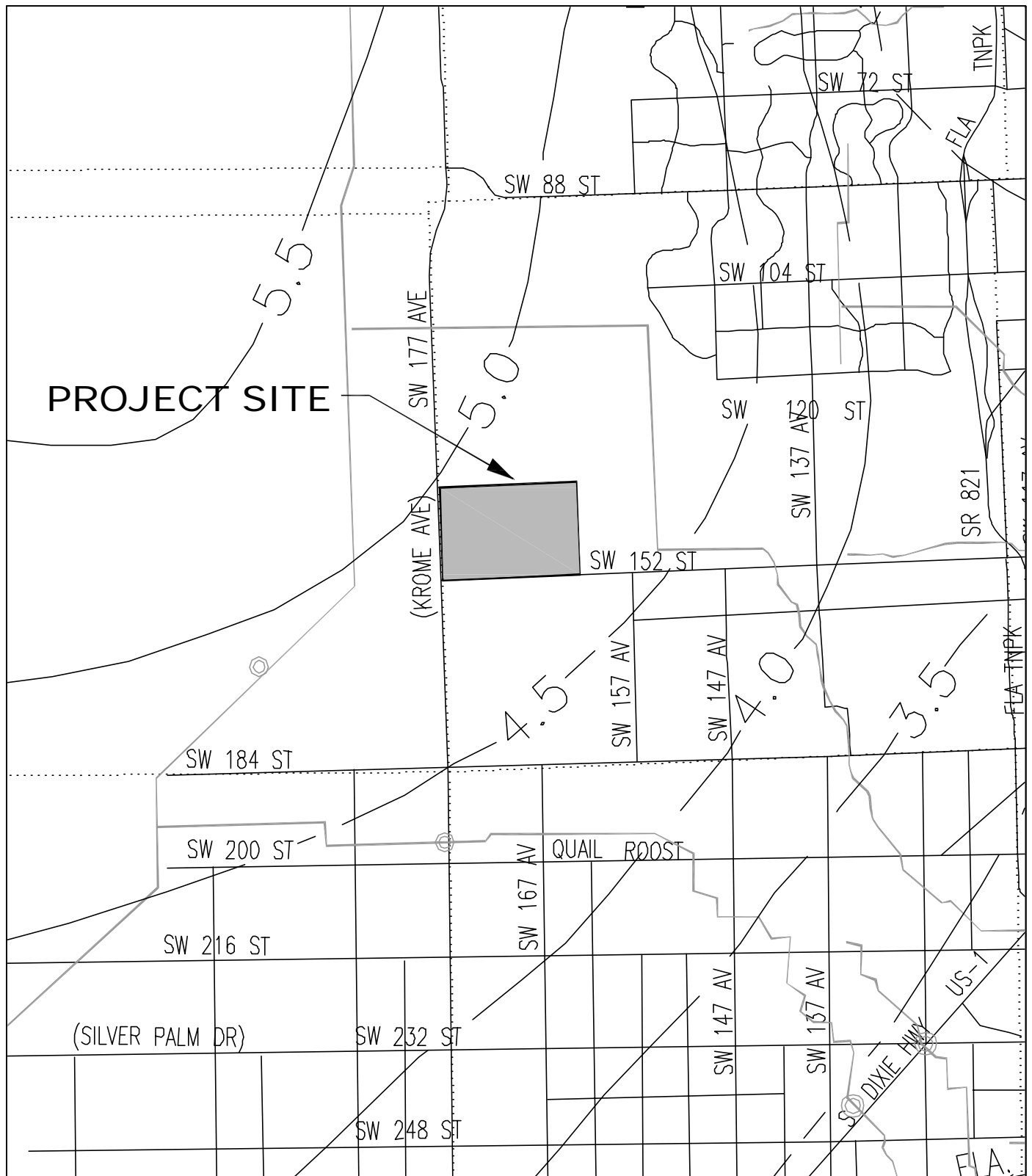
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- "1 to < 21"
- "21 to < 42"
- "42 to 60"

Map 14-3
Biscayne Aquifer Recharge Zones

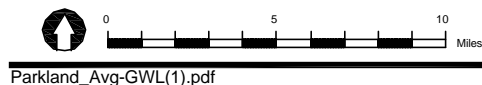
Parkland
 August 2006

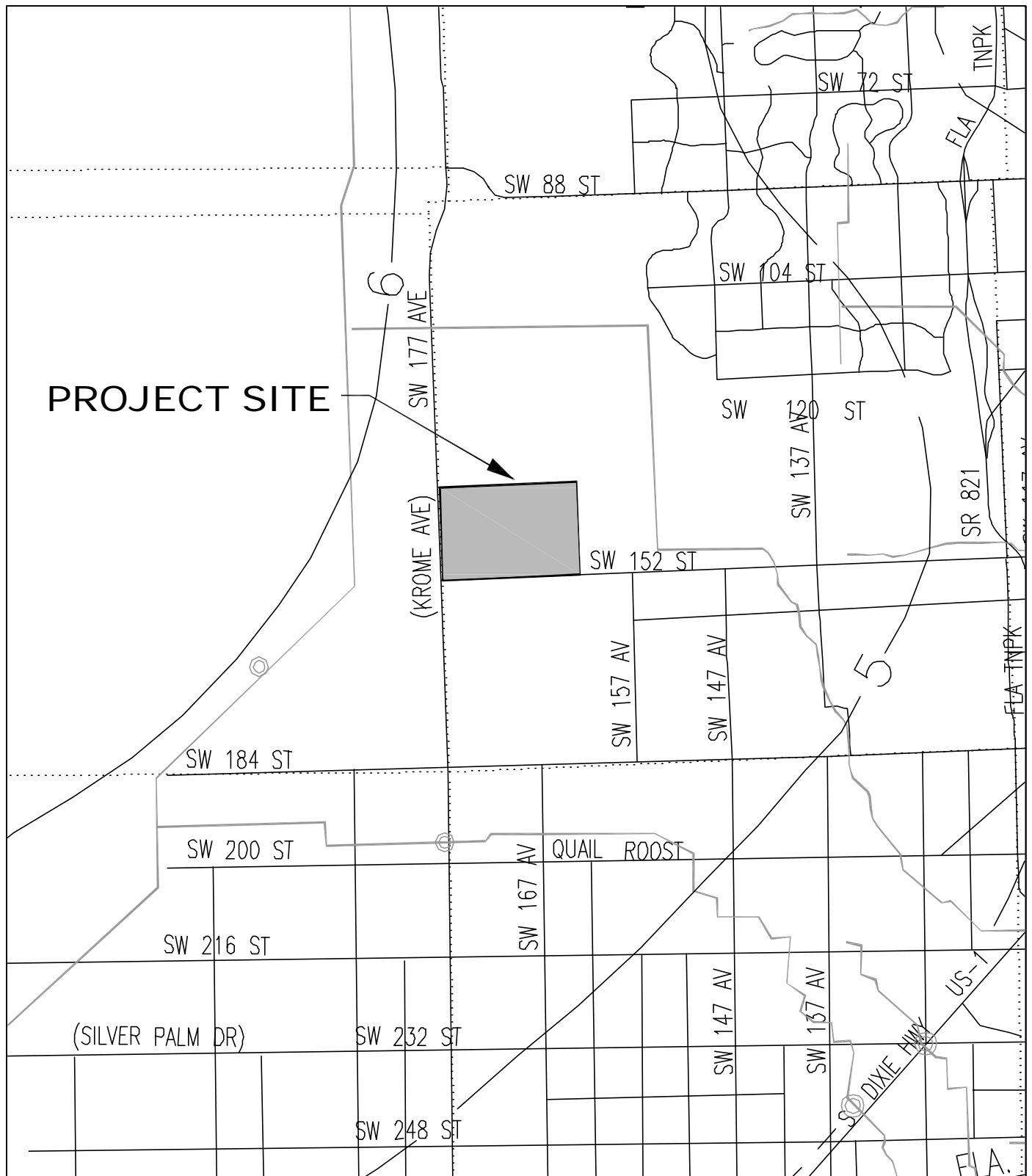




Map 14-4
**Average Ground
 Water Level**

Parkland
 August 2006





PROJECT SITE

(KROME AVE)

5

SO DIXIE HWY

Map 14-5
**October Ground
 Water Level**

Parkland
 August 2006

