7/30/85

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION TO CONSTRUCT/OPERATE/ABANDON CLASS I, III, OR V INJECTION WELL SYSTEMS

PART I. Directions

A. All applicable items must be completed in full in order to avoid delay in processing this application. Where attached sheets or other technical documentation are utilized in lieu of the blank space provided, indicate appropriate cross-reference in the space and provide copies to the department in accordance with (C) below. Where certain items do not appear applicable to the project, indicate N/A in the appropriate spaces. When this form is used in conjunction with DER Form 17-1.209(1), duplicative information requests need to be completed only once.

B. All information is to be typed or printed in ink.

C. Four (4) copies of this application and four (4) copies of supporting information such as plans, reports, drawings and other documents shall be submitted to the appropriate District/Subdistrict office. An engineering report is also required to be submitted to support this application pursuant to the applicable sections of Florida Administrative Code Rule 17-28. The attached lists* shall be used to determine completeness of supporting data submitted or previously received. A check for the application fee in accordance with Florida Administrative Code Rule 17-4.05 made payable to the Department shall accompany the application.

D. For projects involving construction, this application is to be accompanied by four (4) sets of engineering drawings, specifications and design data as prepared by a Professional Engineer registered in Florida, where required by Chapter 471, Florida Statutes.

E. Attach 8 1/2" x 11" USGS site location map indicating township, range and section and latitude/longitude for the project.

PART II. General Information

A. Applicant: Name Mr. Timothy Hunt, Palm Beach County Solid Waste Authority Title Executive Director

Address 5114 Okeechobee Boulevard

City West Palm Beach, Florida Zip 33409

Telephone Number (305) 471-5770

B. Project Status: [X] New [ ] Existing

[ ] Modification (specify) _____

*"Engineering and Hydrogeologic Data Required for Support of Application to Construct, Operate and Abandon Class I, III, or V Injection Wells"

C. Well Type:

( ) Exploratory Well (X) Test/Injection Well

D. Type of Permit Application:

( ) Class I Exploratory Well Construction and Testing Permit

(X) Class I Test/Injection Well Construction and Testing Permit

( ) Class I Well Operating Permit

( ) Class I Well Plugging and Abandonment Permit

( ) Class III Well Construction/Operation/Plugging and Abandonment Permit

( ) Class V well Construction Permit

( ) Class V Well Operating Permit

( ) Class V Well Plugging and Abandonment Permit

E. Facility Identification:

Name: Resource Recovery Facility

Facility Location: Street: North of 45th St., West of Florida's Turnpike

City: West Palm Beach County: Palm Beach

SIC Code: _____

F. Proposed facility located on Indian Lands: Yes ____ No X

G. Well Identification:

Well No. 1&2 of 2 Wells
(total #)

Purpose (Proposed Use): Disposal of blowdown water

Well Location: Latitude: 26° 46' 45" Longitude 80° 8' 22"

(attach separate sheet, if necessary, for multiple wells.)

Subpart B. General Projection Description:

(1) Describe the nature, extent and schedule of the injection well project. Refer to existing and/or future pollution control facilities, expected improvement in performance of the facilities and state whether the project will result in full compliance with the requirements of Chapter 403, Florida Statutes, and all rules and regulations of the Department. Attach additional sheet(s) if necessary or cross-reference the engineering report.

See injection well construction and testing program, March 1985, by Geraghty & Miller, Inc.

PART III Statement by Applicant and Engineer

A. Applicant

I, the owner/authorized representative* of the Palm Beach County Solid Waste Authority, certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I understand that this certification also applies to all subsequent reports submitted pursuant to this permit. Where construction is involved, I agree to retain the design engineer, or other professional engineer registered in Florida, to provide inspection of construction in accordance with Florida Administrative Code Rule 17-28.34(1)(c).

Timothy L. Hunt Jr. — Signed

7/30/85 — Date

Timothy Hunt, Executive Director, PBCSWA — Name and Title (Please Type)

(305)471-5770 — Telephone Number

*Attach a Letter of Authorization.

B. Professional Engineer Registered in Florida

This is to certify that the engineering features of this injection well have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgement, that the well, when properly maintained and operated, will discharge the effluent in compliance with all applicable statutes of the State of Florida and the rules and regulations of the Department. It is also agreed that the undersigned will furnish the applicant a set of instructions for proper maintenance and operation of the well.

Signed: Peter Louis Palmer

Peter Louis Palmer
Name (Please Type)

GERAGHTY & MILLER GROUND WATER ENGINEERS, INC.
Company Name (Please Type)

P.O. Box 271173, Tampa FL 33688
Mailing Address (Please Type)

(Please Affix Seal)

FLORIDA REGISTRATION NUMBER 18324 Date: 7/19/85 Phone No. 813-961-1931

PALM BEACH COUNTY
SOLID WASTE AUTHORITY

July 30, 1985

Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Attn: Mr. Hamilton S. Oven, Jr., P.E.
Administrator
Siting Coordination Section

Re: Response to July 2, 1985 Letter
Application for Power Plant Siting Certification
Resource Recovery Facility
Palm Beach County
Solid Waste Authority

Dear Mr. Oven:

Accompanying this letter are 45 copies of the response to your letter of July 2, 1985 to Mr. William J. Kendrick in which 21 questions/comments were raised concerning the application. Individual responses to each of the 21 items are included in each response book for distribution. Should you have any further questions please contact our office.

Very truly yours,

Thomas R. Keith
Environmental Compliance
Administrator

TRK/pc
enclosures

5114 Okeechobee Blvd. / Suite 2C / West Palm Beach, Florida 33409 / Telephone (305) 471-5770

Letter Dated July 2, 1985

ITEM 1: Section 2.2.4 fails to discuss how drainage structures may affect the works of the water management agencies in the area.

RESPONSE: In accordance with the South Florida Water Management District, the proposed drainage system will not discharge more than the maximum allowable 129 CFS during a 25 year 72 hour storm. This discharge will not affect the EPB-10 canal or the surrounding area in the immediate site vicinity. However, according to the Northern Palm Beach County Water Control District a downstream culvert may require some modification. No other adverse affects to the water control district works are anticipated.

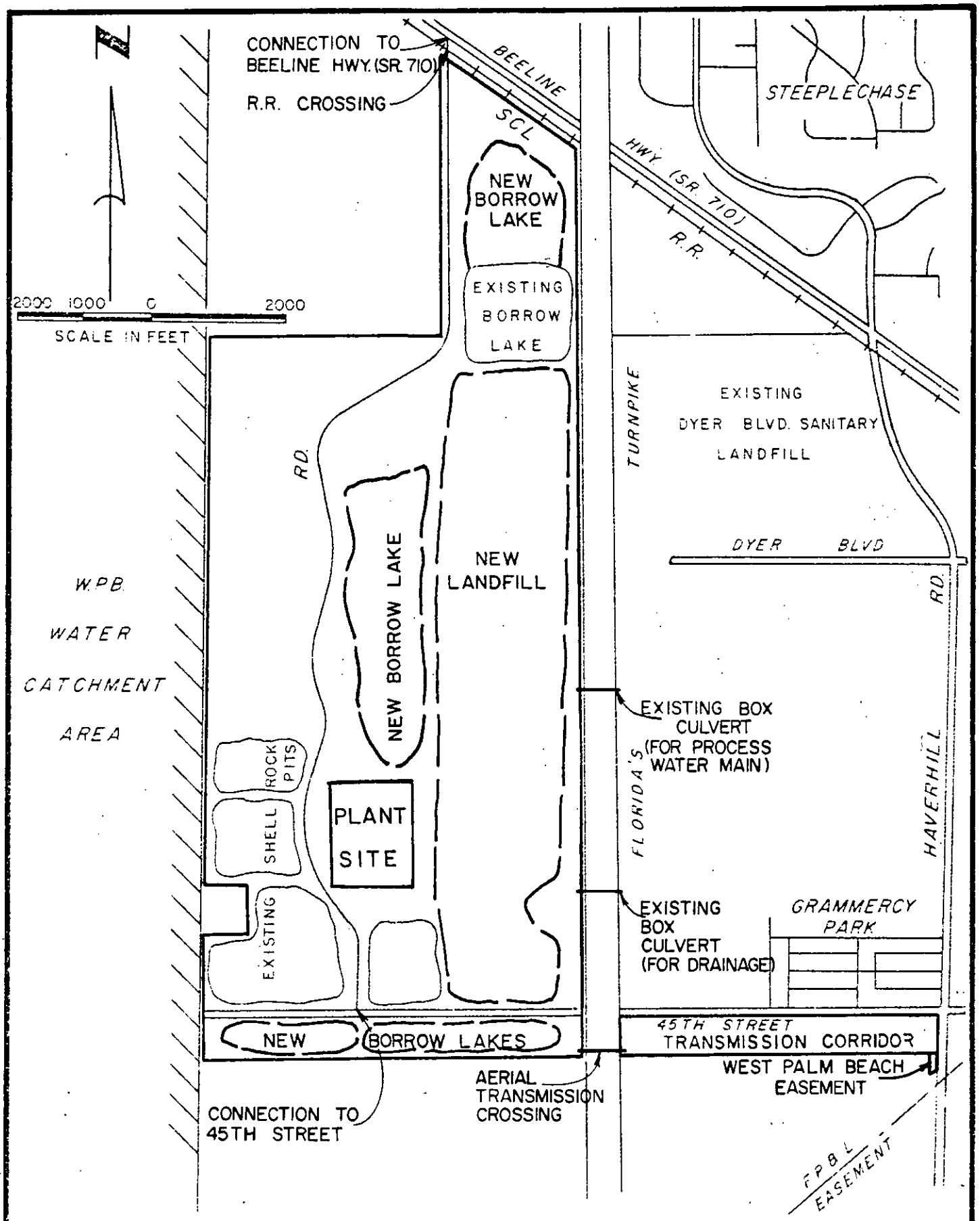
As described in Section 2.2.4, Easements, Title, Agency Works, the Solid Waste Authority has agreed to grant right-of-way and fund construction of a roadway through the project site from 45th Street to the Beeline Highway (S.R. 710). The construction of this roadway will require approval from Palm Beach County for the intersection with 45th Street. It will also require the approval of the Seaboard Coastline Railroad to traverse the railroad right-of-way. Florida Department of Transportation approval will be required for the intersection with the Beeline Highway (S.R. 710).

The Department of Transportation will also have to grant approval of several crossings of Florida's Turnpike. The first approval would be for the use of an existing box culvert for the discharge of stormwater runoff from the project site to the Northern Palm Beach County Water Control District EPB-10 canal. The second approval would be for the use of an existing box culvert north of

the drainage box culvert on Florida's Turnpike for the construction of the process water main from Dyer Boulevard Landfill's interceptor wells no. 1 and 2 to the project site. The process water main would run through the box culvert secured to the ceiling and wall. This box culvert would also provide a means of travel from the closed Dyer Boulevard Landfill to the project site by the Solid Waste Authority personnel. The third approval will be for the aerial crossing of Florida's Turnpike with the electrical transmission lines discussed in Chapter 6. The fourth approval will be for an underground crossing of Florida's Turnpike at 45th Street for a natural gas main using the bore and jack method.

The City of West Palm Beach will also have to grant an easement for the construction of the electrical transmission lines from the transmission corridor to the Florida Power & Light transmission corridor in the vicinity of 45th Street and Haverhill Road. The width of the easement required will be 50 feet.

The accompanying Figure 1-1 shows the locations of the Turnpike crossing and the easement from the City of West Palm Beach as discussed above.



RESPONCE: JULY 2, 1985

PALM BEACH COUNTY
SOLID WASTE AUTHORITY
RESOURCE RECOVERY FACILITY

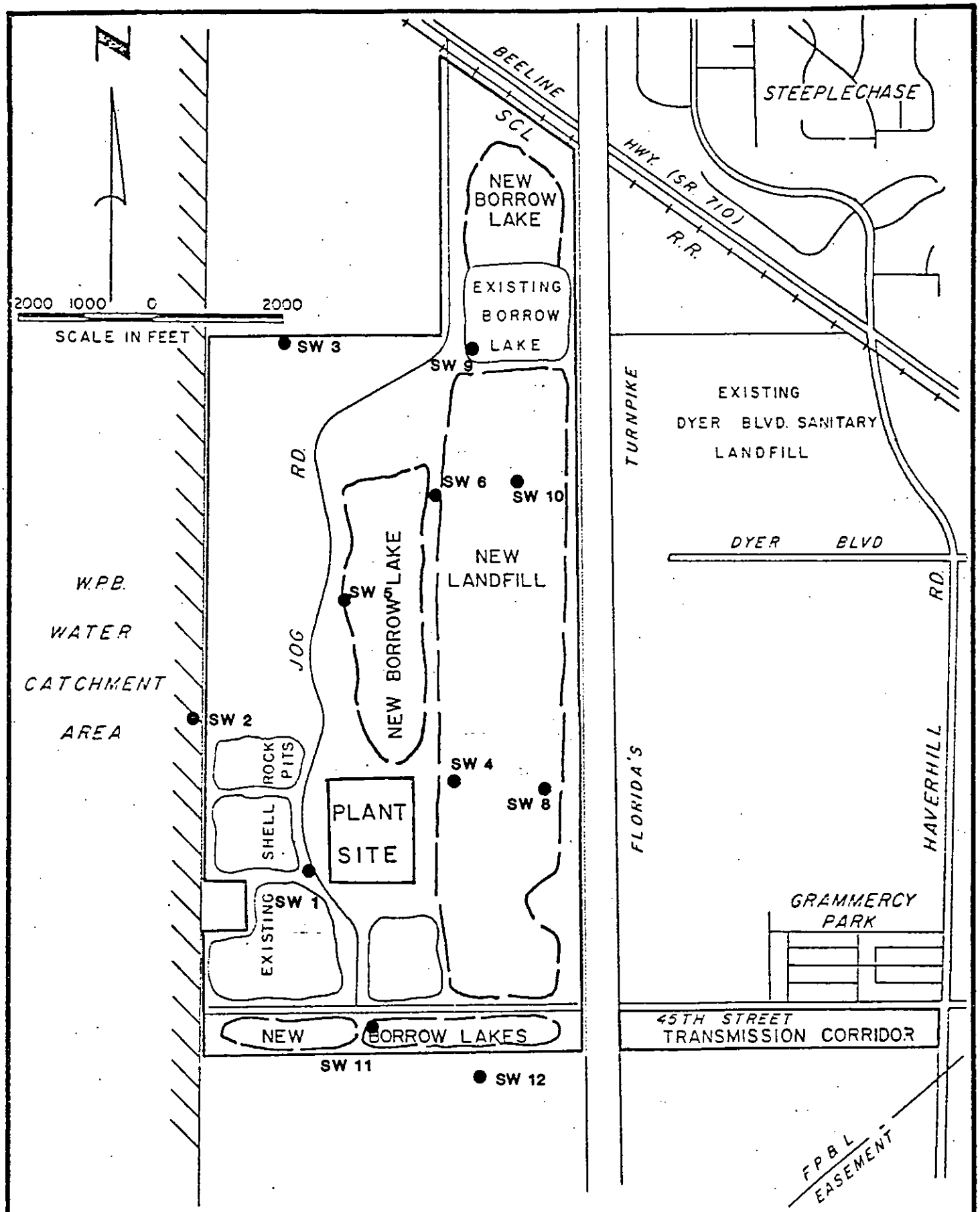
AGENCY WORKS AND EASEMENTS

FIG. 1-1

Letter Dated July 2, 1985

ITEM 2: Section 2.3.4.2, Measurement Programs, should describe the background physical and chemical parameters of surface waters with respect to spatial and temporal changes. The data submitted does not include a station location map indicating where the samples were taken nor are the dates of sampling indicated.

RESPONSE: The accompanying Figure 2-1 delineates the sample locations. Table 1 cross references the surface water sample locations and respective dates of sampling. Also, included in this response is the report of analysis of the surface water sampling program.



RESPONCE: JULY 2, 1985

PALM BEACH COUNTY
SOLID WASTE AUTHORITY
RESOURCE RECOVERY FACILITY

SURFACE WATER SAMPLING POINTS

FIGURE 2-1

TABLE 1

SURFACE WATER QUALITY

Sample No.	Date Sampled
SW-1	5-11-84
SW-2	5-11-84
SW-3	8-3-84
SW-4	7-27-84
SW-5	7-27-84
SW-6	7-27-84
SW-8	5-11-84
SW-9	5-11-84
SW-10	7-27-84
SW-11	5-11-84
SW-12	5-11-84

Date Sampled taken from Orlando Laboratories, Inc. Reports of Analysis.

There is not a Sample No. SW-7.

Orlando Laboratories, Inc.

P. O. Box 19127 • Orlando, Florida 32814 • 305/896-6645

REPORT OF ANALYSIS

Post Buckley, Schuh & Jernigan, Inc.
Attention: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report #: 42333 (4946)
Sampled by: OLI-M. Smar/D. Bungo
Date sampled: 07-27-84
Date received: 07-30-84
Date reported: 09-18-84

SITE SEVEN SAMPLES
FIELD INFORMATION

Sample #1: SW-4 @ 1120 hrs, Water Depth: 0.05 ft, Temperature: 27.0°C, Water Condition: Turbid.

Sample #2: SW-5 @ 1310 hrs, Water Depth: 0.05 ft, Temperature: 31.0°C, Water Condition: Clear.

Sample #3: SW-6 @ 1510 hrs, Water Depth: 0.79 ft, Temperature: 27.5°C, Water Condition: Clear.

Sample #4: SW-10 @ 1230 hrs, Water Depth: 0.25 ft, Temperature: 29.0°C, Water Condition: Clear.

Our Florida Department of Health & Rehabilitative Service Identification Number is 83141.

Respectfully submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

GENERAL WATER ANALYSIS FOR SECONDARY DRINKING WATER REGULATIONS

Post Buckley, Schuh & Jernigan, Inc.
Attention: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report: 42333 (4946)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 07-27-84
Date Received: 07-30-84
Date Reported: 09-18-84

IDENTIFICATION: SW-4, Water Condition: Yellowish/Clear.

METHODS

This water was analyzed according to "Standard Methods for the Examination of Water and Wastewater," Latest Edition, APHA, AWWA and WPCF.

2.1.a

RESULTS

DETERMINATION	(MCL)	mg/l	DETERMINATION	(MCL)	mg/l
Total Dissolved Solids, TDS	(500)	58	Hydrogen Sulfide, H_2S	[F-F]	0.03
Phenolphthalein Alkalinity, $CaCO_3$		0	Specific Conductance, umhos		91
Total Alkalinity, $CaCO_3$		59.8	Foaming Agents (MBAS)	(0.5)	<0.01
Carbonate Alkalinity, $CaCO_3$		0	Sodium, Na	(160)	3.25
Bicarbonate Alkalinity, $CaCO_3$		59.8	Nitrate Nitrogen, N	(10)	<0.02
Carbonates, $CaCO_3$		0	Total Hardness, $CaCO_3$		33.9
Bicarbonates, HCO_3		72.9	Calcium Hardness, $CaCO_3$		29.8
Hydroxides, as OH		0	Magnesium Hardness, $CaCO_3$		4.15
Carbon Dioxide, CO_2		12.2	Calcium, Ca		11.9
Chloride, Cl	(250)	4.7	Magnesium, Mg		1.01
Sulfate, SO_4	(250)	<1.0	Iron, Fe	(0.3)	0.17
Fluoride, F	(1.4-2.4)	0.043	Manganese, Mn	(0.05)	<0.05
pH (Laboratory)	(6.5-8.5)	7.0	Copper, Cu	(1.0)	<0.01
pHs		8.47	Zinc, Zn	(5)	<0.05
Stability Index		9.94			
Saturation Index, corrosivity	(±0.2)	-1.47			
Color, PCU	(15)	>100			
Odor Threshold	(3)	1			
Turbidity, NTU	(5)	1.1			

Our Florida Department of Health & Rehabilitative Services Identification Number is 83141.
Results expressed in mg/l unless otherwise designated. < = Less Than.
MCL - Maximum Contaminant Levels.

Signed: _____ / _____ /

Chemist/Biologist Chemist/Biologist Chemist/Biologist

GENERAL WATER ANALYSIS FOR
SECONDARY DRINKING WATER REGULATIONS

Post Buckley, Schuh & Jernigan, Inc.
Attention: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report: 42333 (4946)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 07-27-84
Date Received: 07-30-84
Date Reported: 09-18-84

IDENTIFICATION: SW-5, Water Condition: Yellow.

METHODS

This water was analyzed according to "Standard Methods for the Examination of Water and Wastewater," Latest Edition, APHA, AWWA and WPCF.

2.1.a

RESULTS

DETERMINATION	(MCL)	mg/l	DETERMINATION	(MCL)	mg/l
Total Dissolved Solids, TDS	(500)	84	Hydrogen Sulfide, H_2S [F-F]		<0.01
Phenolphthalein Alkalinity, $CaCO_3$		0	Specific Conductance, umhos		140
Total Alkalinity, $CaCO_3$		49.7	Foaming Agents (MBAS)	(0.5)	<0.01
Carbonate Alkalinity, $CaCO_3$		0	Sodium, Na	(160)	7.20
Bicarbonate Alkalinity, $CaCO_3$		49.7	Nitrate Nitrogen, N	(10)	<0.02
Carbonates, $CaCO_3$		0	Total Hardness, $CaCO_3$		<61.21
Bicarbonates, HCO_3		60.6	Calcium Hardness, $CaCO_3$		57.1
Hydroxides, as OH		0	Magnesium Hardness, $CaCO_3$		<4.12
Carbon Dioxide, CO_2		2.03	Calcium, Ca		22.84
Chloride, Cl	(250)	3.7	Magnesium, Mg		<1.00
Sulfate, SO_4	(250)	<1.0	Iron, Fe	(0.3)	<0.10
Fluoride, F	(1.4-2.4)	0.023	Manganese, Mn	(0.05)	<0.05
pH (Laboratory)	(6.5-8.5)	7.7	Copper, Cu	(1.0)	<0.01
pHs		8.27	Zinc, Zn	(5)	<0.05
Stability Index		8.85			
Saturation Index, corrosivity	(±0.2)	-0.57			
Color, PCU	(15)	80			
Odor Threshold	(3)	1			
Turbidity, NTU	(5)	0.9			

Our Florida Department of Health & Rehabilitative Services Identification Number is 83141.
Results expressed in mg/l unless otherwise designated. < = Less Than.
MCL - Maximum Contaminant Levels.

Signed: _____ / _____ /
Chemist/Biologist Chemist/Biologist Chemist/Biologist

GENERAL WATER ANALYSIS FOR SECONDARY DRINKING WATER REGULATIONS

Post Buckley, Schuh & Jernigan, Inc.
Attention: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report: 42333 (4946)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 07-27-84
Date Received: 07-30-84
Date Reported: 09-18-84

IDENTIFICATION: SW-6, Water Condition: Yellow.

METHODS

This water was analyzed according to "Standard Methods for the Examination of Water and Wastewater," Latest Edition, APHA, AWWA and WPCF.

RESULTS

2.1.a

DETERMINATION	(MCL)	mg/l	DETERMINATION	(MCL)	mg/l
Total Dissolved Solids, TDS	(500)	158	Hydrogen Sulfide, H_2S	[F-F]	<0.01
Phenolphthalein Alkalinity, $CaCO_3$		0	Specific Conductance, umhos		225
Total Alkalinity, $CaCO_3$		110	Foaming Agents (MBAS)	(0.5)	<0.01
Carbonate Alkalinity, $CaCO_3$		0	Sodium, Na	(160)	12.6
Bicarbonate Alkalinity, $CaCO_3$		110	Nitrate Nitrogen, N	(10)	<0.02
Carbonates, $CaCO_3$		0	Total Hardness, $CaCO_3$		105
Bicarbonates, HCO_3		134	Calcium Hardness, $CaCO_3$		96.4
Hydroxides, as OH		0	Magnesium Hardness, $CaCO_3$		8.47
Carbon Dioxide, CO_2		7.11	Calcium, Ca		38.6
Chloride, Cl	(250)	21.0	Magnesium, Mg		2.06
Sulfate, SO_4	(250)	<1.0	Iron, Fe	(0.3)	<0.10
Fluoride, F	(1.4-2.4)	0.075	Manganese, Mn	(0.05)	<0.05
pH (Laboratory)	(6.5-8.5)	7.5	Copper, Cu	(1.0)	<0.01
pHs		7.75	Zinc, Zn	(5)	<0.05
Stability Index		8.00			
Saturation Index, corrosivity	(+0.2)	-0.25			
Color, PCU	(15)	50			
Odor Threshold	(3)	1			
Turbidity, NTU	(5)	0.2			

Our Florida Department of Health & Rehabilitative Services Identification Number is 83141.
Results expressed in mg/l unless otherwise designated. < = Less Than.
MCL - Maximum Contaminant Levels.

Signed: _____ / _____ /

Chemist/Biologist Chemist/Biologist Chemist/Biologist

GENERAL WATER ANALYSIS FOR
SECONDARY DRINKING WATER REGULATIONS

Post Buckley, Schuh & Jernigan, Inc.
Attention: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report: 42333 (4946)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 07-27-84
Date Received: 07-30-84
Date Reported: 09-18-84

IDENTIFICATION: SW-10, Water Condition: Yellow.

METHODS

This water was analyzed according to "Standard Methods for the Examination of Water and Wastewater," Latest Edition, APHA, AWWA and WPCF.

RESULTS

2.1.a

DETERMINATION	(MCL)	mg/l	DETERMINATION	(MCL)	mg/l
Total Dissolved Solids, TDS	(500)	166	Hydrogen Sulfide, H_2S	[F-F]	<0.01
Phenolphthalein Alkalinity, $CaCO_3$		0	Specific Conductance, umhos		248
Total Alkalinity, $CaCO_3$		106	Foaming Agents (MBAS)	(0.5)	<0.01
Carbonate Alkalinity, $CaCO_3$		0	Sodium, Na	(160)	12.8
Bicarbonate Alkalinity, $CaCO_3$		106	Nitrate Nitrogen, N	(10)	<0.02
Carbonates, $CaCO_3$		0	Total Hardness, $CaCO_3$		105
Bicarbonates, HCO_3		129	Calcium Hardness, $CaCO_3$		96.9
Hydroxides, as OH		0	Magnesium Hardness, $CaCO_3$		8.49
Carbon Dioxide, CO_2		1.72	Calcium, Ca		38.8
Chloride, Cl	(250)	20.1	Magnesium, Mg		2.06
Sulfate, SO_4	(250)	<1.0	Iron, Fe	(0.3)	<0.10
Fluoride, F	(1.4-2.4)	0.087	Manganese, Mn	(0.05)	<0.05
pH (Laboratory)	(6.5-8.5)	8.1	Copper, Cu	(1.0)	<0.01
pHs		7.77	Zinc, Zn	(5)	<0.05
Stability Index		7.43			
Saturation Index, corrosivity	(±0.2)	0.33			
Color, PCU	(15)	50			
Odor Threshold	(3)	1			
Turbidity, NTU	(5)	0.4			

Our Florida Department of Health & Rehabilitative Services Identification Number is 83141.
Results expressed in mg/l unless otherwise designated. < = Less Than.
MCL - Maximum Contaminant Levels.

Signed: _____ / _____ /
Chemist/Biologist Chemist/Biologist Chemist/Biologist

PRIMARY DRINKING WATER REGULATIONS ANALYSIS (ORG. & INORG.)

Post Buckley, Schuh & Jernigan, Inc.
Attention: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report #: 42333 (4946)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 07-27-84
Date Received: 07-30-84
Date Reported: 09-18-84
6 of 9

Identification: #1. SW-4 #2. SW-5 #3. SW-6 #4. SW-10

METHODS & LIMITS: In accordance with Federal Register-Vol. 40, No. 248, Part IV-Wednesday, December 24, 1975. U.S. Environmental Protection Agency, National Interim Primary Drinking Water Regulations.

2.1.b

CONTAMINANT	*MCL	#1	#2	#3	#4
INORGANIC:					
Arsenic, As	0.05	<0.01	<0.01	<0.01	<0.01
Barium, Ba	1.0	<0.10	<0.10	<0.10	<0.10
Cadmium, Cd	0.010	<0.005	<0.005	<0.005	<0.005
Chromium, Cr	0.05	<0.01	<0.01	<0.01	<0.01
Lead, Pb	0.05	<0.01	<0.01	<0.01	<0.01
Mercury, Hg	0.002	<0.0005	<0.0005	<0.0005	<0.0005
Selenium, Se	0.01	<0.005	<0.005	<0.005	<0.005
Silver, Ag	0.05	<0.01	<0.01	<0.01	<0.01
Fluoride, F	1.4 - 2.4	0.043	0.023	0.075	0.087
Turbidity, NTU	5	1.1	0.9	0.2	0.4
Nitrate Nitrogen, NO_3-N	10	<0.02	<0.02	<0.02	<0.02
ORGANIC:					
Endrin	0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Lindane	0.004	<0.001	<0.001	<0.001	<0.001
Methoxychlor	0.1	<0.01	<0.01	<0.01	<0.01
Toxaphene	0.005	<0.001	<0.001	<0.001	<0.001
2,4-D	0.1	<0.01	<0.01	<0.01	<0.01
2,4,5-TP (Silvex)	0.01	<0.001	<0.001	<0.001	<0.001

Results are expressed in mg/l (ppm). *MCL - Maximum Contaminant Levels.
Our Florida Department of Health & Rehabilitative Services Laboratory Identification Number is 83141.

Respectfully Submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

Post Buckley, Schuh & Jernigan, Inc. Report #: 42333 (4946)
Attention: Mr. David E. Deans, P.E. 09-18-84 8 of 9

Identification: #1. SW-4 #2. SW-5 #3. SW-6 #4. SW-10

2.1.c

BASE NEUTRALS	#1	#2	#3	#4
bis(2-Ethylhexyl)phthalate	<0.01	<0.01	<0.01	<0.01
Di-n-octyl phthalate	<0.01	<0.01	<0.01	<0.01
Dimethyl phthalate	<0.01	<0.01	<0.01	<0.01
Diethyl phthalate	<0.01	<0.01	<0.01	<0.01
Di-n-butyl phthalate	<0.01	<0.01	<0.01	<0.01
Butyl benzyl phthalate	<0.01	<0.01	<0.01	<0.01
ACID EXTRACTABLE ORGANICS				
Phenol	<0.01	<0.01	<0.01	<0.01
2-Nitrophenol	<0.01	<0.01	<0.01	<0.01
4-Nitrophenol	<0.01	<0.01	<0.01	<0.01
2,4-Dinitrophenol	<0.01	<0.01	<0.01	<0.01
Pentachlorophenol	<0.01	<0.01	<0.01	<0.01
2-Chlorophenol	<0.01	<0.01	<0.01	<0.01
2,4-Dichlorophenol	<0.01	<0.01	<0.01	<0.01
2,4,6-Trichlorophenol	<0.01	<0.01	<0.01	<0.01
2,4-Dimethylphenol	<0.01	<0.01	<0.01	<0.01
2-Methyl-4,6-Dinitrophenol	<0.01	<0.01	<0.01	<0.01
4-Chloro-3-Methyl Phenol	<0.01	<0.01	<0.01	<0.01
PESTICIDES/PCB's				
Aroclor 1016	<0.001	<0.001	<0.001	<0.001
Aroclor 1221	<0.001	<0.001	<0.001	<0.001
Aroclor 1232	<0.001	<0.001	<0.001	<0.001
Aroclor 1242	<0.001	<0.001	<0.001	<0.001
Aroclor 1248	<0.001	<0.001	<0.001	<0.001
Aroclor 1254	<0.001	<0.001	<0.001	<0.001
Aroclor 1260	<0.001	<0.001	<0.001	<0.001
Parathion	<0.001	<0.001	<0.001	<0.001
Mirex	<0.001	<0.001	<0.001	<0.001
Aldrin	<0.001	<0.001	<0.001	<0.001
Dieldrion	<0.001	<0.001	<0.001	<0.001

Results are expressed in mg/l (ppm). *MCL - Maximum Contaminant Levels.
Our Florida Department of Health & Rehabilitative Services Laboratory Identification Number is 83141.

Respectfully Submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

Post Buckley, Schuh & Jernigan, Inc. Report #: 42333 (4946)
Attention: Mr. David E. Deans, P.E. 09-18-84 9 of 9

Identification: #1. SW-4 #2. SW-5 #3. SW-6 #4. SW-10

2.1.c

PESTICIDES/PCB's - cont.	#1	#2	#3	#4
Chlorodane	<0.001	<0.001	<0.001	<0.001
DDT	<0.001	<0.001	<0.001	<0.001
Demeton	<0.001	<0.001	<0.001	<0.001
Endosulfan	<0.001	<0.001	<0.001	<0.001
Guthion	<0.001	<0.001	<0.001	<0.001

No Table

RADIOCHEMISTRY	GROSS ALPHA, pCi/l Storet # 01501	Counting error, pCi/l Storet # 01502
#1	0.4	± 0.5
#2	0.2	± 0.5
#3	0.2	± 0.7
#4	0.6	± 1.0

	RADIUM 226, pCi/l Storet # 09501	Counting error, pCi/l Storet # 09502
#1	<0.2	± 0.2
#2	<0.2	± 0.2
#3	<0.2	± 0.2
#4	<0.2	± 0.2

	RADIUM 228, pCi/l Storet # 11501	Counting error, pCi/l Storet # 11502
#1	0.7	± 0.2
#2	<0.2	± 0.2
#3	0.7	± 0.2
#4	<0.2	± 0.2

Results are expressed in mg/l (ppm). *MCL - Maximum Contaminant Levels.
Our Florida Department of Health & Rehabilitative Services Laboratory Identification Number is 83141.

Respectfully Submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

Orlando Laboratories, Inc.

P. O. Box 19127 • Orlando, Florida 32814 • 305/896-6645

REPORT OF ANALYSIS

Post Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E
889 North Orange Avenue
Orlando, Florida 32801-1088

Report #: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date sampled: 05-11-84
Date received: 05-11-84
Date reported: 07-17-84

PALM BEACH COUNTY, SITE 7 SAMPLING
SURFACE WATER SAMPLES

Sample #1: SW-1 @ 1505 hrs, Water Depth: 2.08 ft, pH: 8.6, Water Temperature: 28.°C, Specific Conductance: 451 umhos, Water Condition: Clear, Chlorine Residual: <0.1 mg/1, Dissolved Oxygen: 7.9 mg/1, Light chop, wind 10-15 MPH out of east, sunny.

Sample #2: SW-2 @ 1600 hrs, Water Depth: 0.5 ft, pH: 7.1, Water Temperature: 28.1°C, Specific Conductance: 104 umhos, Water Condition: Clear, Chlorine Residual: <0.1 mg/1, Dissolved Oxygen: 5.81 mg/1, Calm, sunny.

Sample #3: SW-8 @ 1700 hrs, Water Depth: 1.0 ft, pH: 7.2, Water Temperature: 28.0°C, Specific Conductance: 211 umhos, Water Condition: Clear, Chlorine Residual: <0.1 mg/1, Dissolved Oxygen: 9.8 mg/1, Light chop, wind 5-10 MPH out of north, sunny.

Sample #4: SW-9 @ 1745 hrs, Water Depth: 16.58 ft, pH: 8.9, Water Temperature: 27.5°C, Specific Conductance: 450 umhos, Water Condition: Turbid, Chlorine Residual: <0.1 mg/1, Dissolved Oxygen: not field-fixed, no value, Heavy chop, wind 20 MPH out of north.

Sample #5: SW-11 @ 1320 hrs, Water Depth: 3.92 ft, pH: 7.1, Water Temperature: 29.8°C, Specific Conductance: 432 umhos, Water Condition: Clear, Chlorine Residual: <0.1 mg/1, Dissolved Oxygen: 9.5 mg/1, Light chop, wind 10-15 MPH out or east, sunny.

Sample #6: SW-12 @ 1215 hrs, Water Depth: 2.83 ft, pH: 27.0°C, Water Temperature: 27.°C, Specific Conductance: 390 umhos, Water Condition: Turbid, Chlorine Residual: <0.1 mg/1, Dissolved Oxygen: 0.5 mg/1, Calm, wind <5 MPH, sunny.

Our Florida Department of Health & Rehabilitative Service Identification Number is 83141.

Respectfully submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist

PRIMARY DRINKING WATER REGULATIONS ANALYSIS (ORG. & INORG.)

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report #: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 05-11-84
Date Received: 05-11-84
Date Reported: 07-17-84

Identification: SW-1

METHODS & LIMITS: In accordance with Federal Register-Vol. 40, No. 248, Part IV-Wednesday, December 24, 1975. U.S. Environmental Protection Agency, National Interim Primary Drinking Water Regulations.

2.1.b

CONTAMINANT	*MCL	SAMPLE
INORGANIC:		
Arsenic, As	0.05	<0.01
Barium, Ba	1.0	<0.10
Cadmium, Cd	0.010	<0.005
Chromium, Cr	0.05	<0.01
Lead, Pb	0.05	<0.01
Mercury, Hg	0.002	<0.0005
Selenium, Se	0.01	<0.005
Silver, Ag	0.05	<0.01
Fluoride, F	1.4 - 2.4	0.164
Turbidity, NTU	5	0.7
Nitrate Nitrogen, NO_3-N	10	<0.02
ORGANIC:		
Endrin	0.0002	<0.0001
Lindane	0.004	<0.001
Methoxychlor	0.1	<0.01
Toxaphene	0.005	<0.001
2,4-D	0.1	<0.01
2,4,5-TP (Silvex)	0.01	<0.001

Results are expressed in mg/l (ppm). *MCL - Maximum Contaminant Levels.
Our Florida Department of Health & Rehabilitative Services Laboratory Identification Number is 83141.

Respectfully Submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

PRIMARY DRINKING WATER REGULATIONS ANALYSIS (ORG. & INORG.)

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report #: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 05-11-84
Date Received: 05-11-84
Date Reported: 07-17-84

Identification: SW-2

METHODS & LIMITS: In accordance with Federal Register-Vol. 40, No. 248, Part IV-Wednesday, December 24, 1975. U.S. Environmental Protection Agency, National Interim Primary Drinking Water Regulations.

2.1.b

CONTAMINANT	*MCL	SAMPLE
INORGANIC:		
Arsenic, As	0.05	<0.01
Barium, Ba	1.0	<0.10
Cadmium, Cd	0.010	<0.005
Chromium, Cr	0.05	<0.01
Lead, Pb	0.05	<0.01
Mercury, Hg	0.002	<0.0005
Selenium, Se	0.01	<0.005
Silver, Ag	0.05	<0.01
Fluoride, F	1.4 - 2.4	0.054
Turbidity, NTU	5	1.9
Nitrate Nitrogen, NO_3-N	10	<0.02
ORGANIC:		
Endrin	0.0002	<0.0001
Lindane	0.004	<0.001
Methoxychlor	0.1	<0.01
Toxaphene	0.005	<0.001
2,4-D	0.1	<0.01
2,4,5-TP (Silvex)	0.01	<0.001

Results are expressed in mg/l (ppm). *MCL - Maximum Contaminant Levels.
Our Florida Department of Health & Rehabilitative Services Laboratory Identification Number is 83141.

Respectfully Submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

PRIMARY DRINKING WATER REGULATIONS ANALYSIS (ORG. & INORG.)

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report #: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 05-11-84
Date Received: 05-11-84
Date Reported: 07-17-84

Identification: SW-8

METHODS & LIMITS: In accordance with Federal Register-Vol. 40, No. 248, Part IV-Wednesday, December 24, 1975. U.S. Environmental Protection Agency, National Interim Primary Drinking Water Regulations.

2.1.b

CONTAMINANT	*MCL	SAMPLE
INORGANIC:		
Arsenic, As	0.05	<0.01
Barium, Ba	1.0	<0.10
Cadmium, Cd	0.010	<0.005
Chromium, Cr	0.05	<0.01
Lead, Pb	0.05	<0.01
Mercury, Hg	0.002	<0.0005
Selenium, Se	0.01	<0.005
Silver, Ag	0.05	<0.01
Fluoride, F	1.4 - 2.4	0.055
Turbidity, NTU	5	1.3
Nitrate Nitrogen, NO_3-N	10	<0.02
ORGANIC:		
Endrin	0.0002	<0.0001
Lindane	0.004	<0.001
Methoxychlor	0.1	<0.01
Toxaphene	0.005	<0.001
2,4-D	0.1	<0.01
2,4,5-TP (Silvex)	0.01	<0.001

Results are expressed in mg/l (ppm). *MCL - Maximum Contaminant Levels.
Our Florida Department of Health & Rehabilitative Services Laboratory Identification Number is 83141.

Respectfully Submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

PRIMARY DRINKING WATER REGULATIONS ANALYSIS (ORG. & INORG.)

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report #: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 05-11-84
Date Received: 05-11-84
Date Reported: 07-17-84

Identification: SW-9

METHODS & LIMITS: In accordance with Federal Register-Vol. 40, No. 248, Part IV-Wednesday, December 24, 1975. U.S. Environmental Protection Agency, National Interim Primary Drinking Water Regulations.

2.1.b

CONTAMINANT	*MCL	SAMPLE
INORGANIC:		
Arsenic, As	0.05	<0.01
Barium, Ba	1.0	<0.10
Cadmium, Cd	0.010	<0.005
Chromium, Cr	0.05	<0.01
Lead, Pb	0.05	<0.01
Mercury, Hg	0.002	<0.0005
Selenium, Se	0.01	<0.005
Silver, Ag	0.05	<0.01
Fluoride, F	1.4 - 2.4	0.373
Turbidity, NTU	5	89
Nitrate Nitrogen, NO_3-N	10	0.39
ORGANIC:		
Endrin	0.0002	<0.0001
Lindane	0.004	<0.001
Methoxychlor	0.1	<0.01
Toxaphene	0.005	<0.001
2,4-D	0.1	<0.01
2,4,5-TP (Silvex)	0.01	<0.001

Results are expressed in mg/l (ppm). *MCL - Maximum Contaminant Levels.
Our Florida Department of Health & Rehabilitative Services Laboratory Identification Number is 83141.

Respectfully Submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

PRIMARY DRINKING WATER REGULATIONS ANALYSIS (ORG. & INORG.)

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report #: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 05-11-84
Date Received: 05-11-84
Date Reported: 07-17-84

Identification: SW-11

METHODS & LIMITS: In accordance with Federal Register-Vol. 40, No. 248, Part IV-Wednesday, December 24, 1975. U.S. Environmental Protection Agency, National Interim Primary Drinking Water Regulations.

2.1.b

CONTAMINANT	*MCL	SAMPLE
INORGANIC:		
Arsenic, As	0.05	<0.01
Barium, Ba	1.0	<0.10
Cadmium, Cd	0.010	<0.005
Chromium, Cr	0.05	<0.01
Lead, Pb	0.05	<0.01
Mercury, Hg	0.002	<0.0005
Selenium, Se	0.01	<0.005
Silver, Ag	0.05	<0.01
Fluoride, F	1.4 - 2.4	0.162
Turbidity, NTU	5	1.1
Nitrate Nitrogen, NO_3-N	10	<0.02
ORGANIC:		
Endrin	0.0002	<0.0001
Lindane	0.004	<0.001
Methoxychlor	0.1	<0.01
Toxaphene	0.005	<0.001
2,4-D	0.1	<0.01
2,4,5-TP (Silvex)	0.01	<0.001

Results are expressed in mg/l (ppm). *MCL - Maximum Contaminant Levels.
Our Florida Department of Health & Rehabilitative Services Laboratory Identification Number is 83141.

Respectfully Submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

PRIMARY DRINKING WATER REGULATIONS ANALYSIS (ORG. & INORG.)

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report #: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 05-11-84
Date Received: 05-11-84
Date Reported: 07-17-84

Identification: SW-12

METHODS & LIMITS: In accordance with Federal Register-Vol. 40, No. 248, Part IV-Wednesday, December 24, 1975. U.S. Environmental Protection Agency, National Interim Primary Drinking Water Regulations.

2.1.b

CONTAMINANT	*MCL	SAMPLE
INORGANIC:		
Arsenic, As	0.05	<0.01
Barium, Ba	1.0	<0.10
Cadmium, Cd	0.010	<0.005
Chromium, Cr	0.05	<0.01
Lead, Pb	0.05	<0.01
Mercury, Hg	0.002	<0.0005
Selenium, Se	0.01	<0.005
Silver, Ag	0.05	<0.01
Fluoride, F	1.4 - 2.4	0.135
Turbidity, NTU	5	2.4
Nitrate Nitrogen, NO_3-N	10	<0.02
ORGANIC:		
Endrin	0.0002	<0.0001
Lindane	0.004	<0.001
Methoxychlor	0.1	<0.01
Toxaphene	0.005	<0.001
2,4-D	0.1	<0.01
2,4,5-TP (Silvex)	0.01	<0.001

Results are expressed in mg/l (ppm). *MCL - Maximum Contaminant Levels.
Our Florida Department of Health & Rehabilitative Services Laboratory Identification Number is 83141.

Respectfully Submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

GENERAL WATER ANALYSIS FOR SECONDARY DRINKING WATER REGULATIONS

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 05-11-84
Date Received: 05-11-84
Date Reported: 07-17-84

IDENTIFICATION: SW-1, Water Appearance: Slightly yellow.

METHODS

This water was analyzed according to "Standard Methods for the Examination of Water and Wastewater," Latest Edition, APHA, AWWA and WPCF.

2.1.9

RESULTS

DETERMINATION	(MCL)	mg/l	DETERMINATION	(MCL)	mg/l
Total Dissolved Solids, TDS	(500)	224	Hydrogen Sulfide, H_2S [F-F]		<0.01
Phenolphthalein Alkalinity, $CaCO_3$		0	Specific Conductance, umhos		320
Total Alkalinity, $CaCO_3$		151	Foaming Agents (MBAS)	(0.5)	<0.01
Carbonate Alkalinity, $CaCO_3$		0	Sodium, Na	(160)	19.6
Bicarbonate Alkalinity, $CaCO_3$		151	Nitrate Nitrogen, N	(10)	<0.02
Carbonates, $CaCO_3$		0	Total Hardness, $CaCO_3$		153
Bicarbonates, HCO_3		184	Calcium Hardness, $CaCO_3$		139
Hydroxides, as OH		0	Magnesium Hardness, $CaCO_3$		13.7
Carbon Dioxide, CO_2		6.16	Calcium, Ca		55.6
Chloride, Cl	(250)	26.2	Magnesium, Mg		3.32
Sulfate, SO_4	(250)	2.7	Iron, Fe	(0.3)	0.20
Fluoride, F	(1.4-2.4)	0.164	Manganese, Mn	(0.05)	<0.05
pH (Laboratory)	(6.5-8.5)	7.7	Copper, Cu	(1.0)	<0.01
pHs		7.49	Zinc, Zn	(5)	<0.01
Stability Index		7.28			
Saturation Index, corrosivity	(+0.2)	0.21			
Color, PCU	(15)	10			
Odor Threshold	(3)	1			
Turbidity, NTU	(5)	0.7			

Our Florida Department of Health & Rehabilitative Services Identification Number is 83141.
Results expressed in mg/l unless otherwise designated. < = Less Than.
MCL - Maximum Contaminant Levels.

Signed: _____ / _____ / _____

Chemist/Biologist Chemist/Biologist Chemist/Biologist

GENERAL WATER ANALYSIS FOR SECONDARY DRINKING WATER REGULATIONS

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 05-11-84
Date Received: 05-11-84
Date Reported: 07-17-84

IDENTIFICATION: SW-2, Water Appearance: Yellow.

METHODS

This water was analyzed according to "Standard Methods for the Examination of Water and Wastewater," Latest Edition, APHA, AWWA and WPCF.

RESULTS

2.1.a

DETERMINATION	(MCL)	mg/l	DETERMINATION	(MCL)	mg/l
Total Dissolved Solids, TDS	(500)	90	Hydrogen Sulfide, H_2S [F-F]		<0.01
Phenolphthalein Alkalinity, $CaCO_3$		0	Specific Conductance, umhos		63
Total Alkalinity, $CaCO_3$		20.0	Foaming Agents (MBAS)	(0.5)	<0.01
Carbonate Alkalinity, $CaCO_3$		0	Sodium, Na	(160)	6.49
Bicarbonate Alkalinity, $CaCO_3$		20.0	Nitrate Nitrogen, N	(10)	<0.02
Carbonates, $CaCO_3$		0	Total Hardness, $CaCO_3$		23.1
Bicarbonates, HCO_3		24.8	Calcium Hardness, $CaCO_3$		16.6
Hydroxides, as OH		0	Magnesium Hardness, $CaCO_3$		6.54
Carbon Dioxide, CO_2		4.19	Calcium, Ca		6.64
Chloride, Cl	(250)	11.1	Magnesium, Mg		1.59
Sulfate, SO_4	(250)	<1.0	Iron, Fe	(0.3)	<0.10
Fluoride, F	(1.4-2.4)	0.054	Manganese, Mn	(0.05)	<0.05
pH (Laboratory)	(6.5-8.5)	7.0	Copper, Cu	(1.0)	<0.01
pHs		9.21	Zinc, Zn	(5)	<0.01
Stability Index		11.4			
Saturation Index, corrosivity	(±0.2)	-2.21			
Color, PCU	(15)	40			
Odor Threshold	(3)	1			
Turbidity, NTU	(5)	1.9			

Our Florida Department of Health & Rehabilitative Services Identification Number is 83141.
Results expressed in mg/l unless otherwise designated. < = Less Than.
MCL - Maximum Contaminant Levels.

Signed: _____ / _____ / _____

Chemist/Biologist Chemist/Biologist Chemist/Biologist

GENERAL WATER ANALYSIS FOR SECONDARY DRINKING WATER REGULATIONS

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 05-11-84
Date Received: 05-11-84
Date Reported: 07-17-84

IDENTIFICATION: SW-8, Water Appearance: Yellow.

METHODS

This water was analyzed according to "Standard Methods for the Examination of Water and Wastewater," Latest Edition, APHA, AWWA and WPCF.

2.1.a

RESULTS

DETERMINATION	(MCL)	mg/l	DETERMINATION	(MCL)	mg/l
Total Dissolved Solids, TDS	(500)	124	Hydrogen Sulfide, H_2S	[F-F]	<0.01
Phenolphthalein Alkalinity, $CaCO_3$		0	Specific Conductance, umhos		150
Total Alkalinity, $CaCO_3$		70.0	Foaming Agents (MBAS)	(0.5)	<0.01
Carbonate Alkalinity, $CaCO_3$		0	Sodium, Na	(160)	4.25
Bicarbonate Alkalinity, $CaCO_3$		70.0	Nitrate Nitrogen, N	(10)	<0.02
Carbonates, $CaCO_3$		0	Total Hardness, $CaCO_3$		<78.9
Bicarbonates, HCO_3		85.4	Calcium Hardness, $CaCO_3$		74.8
Hydroxides, as OH		0	Magnesium Hardness, $CaCO_3$		<4.12
Carbon Dioxide, CO_2		2.26	Calcium, Ca		29.9
Chloride, Cl	(250)	5.8	Magnesium, Mg		<1.00
Sulfate, SO_4	(250)	5.0	Iron, Fe	(0.3)	<0.10
Fluoride, F	(1.4-2.4)	0.055	Manganese, Mn	(0.05)	<0.05
pH (Laboratory)	(6.5-8.5)	7.8	Copper, Cu	(1.0)	<0.01
pHs		8.04	Zinc, Zn	(5)	<0.01
Stability Index		8.27			
Saturation Index, corrosivity	(±0.2)	-0.24			
Color, PCU	(15)	40			
Odor Threshold	(3)	1			
Turbidity, NTU	(5)	1.3			

Our Florida Department of Health & Rehabilitative Services Identification Number is 83141.
Results expressed in mg/l unless otherwise designated. < = Less Than.
MCL - Maximum Contaminant Levels.

Signed: _____ / _____ / _____
Chemist/Biologist Chemist/Biologist Chemist/Biologist

GENERAL WATER ANALYSIS FOR SECONDARY DRINKING WATER REGULATIONS

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 05-11-84
Date Received: 05-11-84
Date Reported: 07-17-84

IDENTIFICATION: SW-9, Water Appearance: Very Turbid.

METHODS

This water was analyzed according to "Standard Methods for the Examination of Water and Wastewater," Latest Edition, APHA, AWWA and WPCF.

2.1.a

RESULTS

DETERMINATION	(MCL)	mg/l
Total Dissolved Solids, TDS	(500)	262
Phenolphthalein Alkalinity, $CaCO_3$		0
Total Alkalinity, $CaCO_3$		151
Carbonate Alkalinity, $CaCO_3$		0
Bicarbonate Alkalinity, $CaCO_3$		151
Carbonates, $CaCO_3$		0
Bicarbonates, HCO_3		184
Hydroxides, as OH		0
Carbon Dioxide, CO_2		3.09
Chloride, Cl	(250)	15.5
Sulfate, SO_4	(250)	3.0
Fluoride, F	(1.4-2.4)	0.373
pH (Laboratory)	(6.5-8.5)	8.0
pHs		7.38
Stability Index		6.77
Saturation Index, corrosivity	(±0.2)	0.62
Color, PCU	(15)	>100
Odor Threshold	(3)	1
Turbidity, NTU	(5)	89

DETERMINATION	(MCL)	mg/l
Hydrogen Sulfide, H_2S [F-F]		<0.01
Specific Conductance, umhos		310
Foaming Agents (MBAS)	(0.5)	<0.01
Sodium, Na	(160)	13.0
Nitrate Nitrogen, N	(10)	0.39
Total Hardness, $CaCO_3$		191
Calcium Hardness, $CaCO_3$		181
Magnesium Hardness, $CaCO_3$		10.6
Calcium, Ca		72.2
Magnesium, Mg		2.58
Iron, Fe	(0.3)	1.44
Manganese, Mn	(0.05)	<0.05
Copper, Cu	(1.0)	<0.01
Zinc, Zn	(5)	<0.01

Our Florida Department of Health & Rehabilitative Services Identification Number is 83141.
Results expressed in mg/l unless otherwise designated. < = Less Than.
MCL - Maximum Contaminant Levels.

Signed: _____ / _____ / _____

Chemist/Biologist Chemist/Biologist Chemist/Biologist

GENERAL WATER ANALYSIS FOR SECONDARY DRINKING WATER REGULATIONS

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 05-11-84
Date Received: 05-11-84
Date Reported: 07-17-84

IDENTIFICATION: SW-11, Water Appearance: Slight Color.

METHODS

This water was analyzed according to "Standard Methods for the Examination of Water and Wastewater," Latest Edition, APHA, AWWA and WPCF.

2.1.a

RESULTS

DETERMINATION	(MCL)	mg/l	DETERMINATION	(MCL)	mg/l
Total Dissolved Solids, TDS	(500)	162	Hydrogen Sulfide, H_2S [F-F]		<0.01
Phenolphthalein Alkalinity, $CaCO_3$		0	Specific Conductance, umhos		230
Total Alkalinity, $CaCO_3$		90.5	Foaming Agents (MBAS)	(0.5)	<0.01
Carbonate Alkalinity, $CaCO_3$		0	Sodium, Na	(160)	18.1
Bicarbonate Alkalinity, $CaCO_3$		90.5	Nitrate Nitrogen, N	(10)	<0.02
Carbonates, $CaCO_3$		0	Total Hardness, $CaCO_3$		103
Bicarbonates, HCO_3		110	Calcium Hardness, $CaCO_3$		91.2
Hydroxides, as OH		0	Magnesium Hardness, $CaCO_3$		11.9
Carbon Dioxide, CO_2		2.32	Calcium, Ca		36.5
Chloride, Cl	(250)	23.7	Magnesium, Mg		2.90
Sulfate, SO_4	(250)	4.6	Iron, Fe	(0.3)	0.13
Fluoride, F	(1.4-2.4)	0.162	Manganese, Mn	(0.05)	<0.05
pH (Laboratory)	(6.5-8.5)	7.9	Copper, Cu	(1.0)	<0.01
pHs		7.87	Zinc, Zn	(5)	<0.01
Stability Index		7.83			
Saturation Index, corrosivity	(±0.2)	0.03			
Color, PCU	(15)	10			
Odor Threshold	(3)	1			
Turbidity, NTU	(5)	1.1			

Our Florida Department of Health & Rehabilitative Services Identification Number is 83141.
Results expressed in mg/l unless otherwise designated. < = Less Than.
MCL - Maximum Contaminant Levels.

Signed: _____

Chemist/Biologist Chemist/Biologist Chemist/Biologist

GENERAL WATER ANALYSIS FOR SECONDARY DRINKING WATER REGULATIONS

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date Sampled: 05-11-84
Date Received: 05-11-84
Date Reported: 07-17-84

IDENTIFICATION: SW-12, Water Appearance: Yellow.

METHODS

This water was analyzed according to "Standard Methods for the Examination of Water and Wastewater," Latest Edition, APHA, AWWA and WPCF.

2.1.a

RESULTS

DETERMINATION	(MCL)	mg/l	DETERMINATION	(MCL)	mg/l
Total Dissolved Solids, TDS	(500)	220	Hydrogen Sulfide, H_2S	[F-F]	<0.01
Phenolphthalein Alkalinity, $CaCO_3$		0	Specific Conductance, umhos		290
Total Alkalinity, $CaCO_3$		80.0	Foaming Agents (MBAS)	(0.5)	<0.01
Carbonate Alkalinity, $CaCO_3$		0	Sodium, Na	(160)	32.95
Bicarbonate Alkalinity, $CaCO_3$		80.0	Nitrate Nitrogen, N	(10)	<0.02
Carbonates, $CaCO_3$		0	Total Hardness, $CaCO_3$		105
Bicarbonates, HCO_3		98	Calcium Hardness, $CaCO_3$		80.3
Hydroxides, as OH		0	Magnesium Hardness, $CaCO_3$		24.9
Carbon Dioxide, CO_2		3.28	Calcium, Ca		32.1
Chloride, Cl	(250)	42.6	Magnesium, Mg		6.04
Sulfate, SO_4	(250)	7.5	Iron, Fe	(0.3)	0.11
Fluoride, F	(1.4-2.4)	0.135	Manganese, Mn	(0.05)	<0.05
pH (Laboratory)	(6.5-8.5)	7.7	Copper, Cu	(1.0)	<0.01
pHs		7.95	Zinc, Zn	(5)	<0.01
Stability Index		8.2			
Saturation Index, corrosivity	(+0.2)	-0.25			
Color, PCU	(15)	60			
Odor Threshold	(3)	1			
Turbidity, NTU	(5)	2.4			

Our Florida Department of Health & Rehabilitative Services Identification Number is 83141.
Results expressed in mg/l unless otherwise designated. < = Less Than.
MCL - Maximum Contaminant Levels.

Signed: _____ / _____ / _____

Chemist/Biologist Chemist/Biologist Chemist/Biologist

Orlando Laboratories, Inc.

P. O. Box 19127 • Orlando, Florida 32814 • 305/896-6645

REPORT OF ANALYSIS

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report #: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date sampled: 05-11-84
Date received: 05-11-84
Date reported: 07-17-84

IDENTIFICATION: #1. SW-1 #2. SW-2 #3. SW-3

2.1.d

RESULTS OF ANALYSIS

MISCELLANEOUS	#1	#2	#3
Ammonia, ionized	0.04	0.07	0.04
Ammonia, unionized	0.014	0.0007	0.0005
Total Kjeldahl Nitrogen, TKN	0.86	2.07	0.81
Total Nitrogen, TN	0.86	2.07	0.81
Nitrite Nitrogen, N (NO_2-N)	<0.01	<0.01	<0.01
Nitrate Nitrogen, N (NO_3-N)	<0.02	<0.02	<0.02
Organic Nitrogen, ON	0.82	2.0	0.77
Fecal Coliform/100 ml (MFT)	<1	<1	<1
Total Coliform/100 ml (MFT)	5	2	<1
Oil & Grease, infrared	<0.1	<0.1	<0.1
BOD_5-day	7.9	5.4	4.2
Cyanide, CN	<0.005	<0.005	<0.005
Chemical Oxygen Demand, COD	26.0	61.0	27.0
Dissolved Oxygen, DO (Field-Fixed)	7.9	5.8	9.8
Total Phosphate, P (T-PO_4-P)	0.32	0.32	0.16

BOD started 5/14/84 @ 1400 hrs, finished 5/19/84 @ 1400 hrs.

MISCELLANEOUS - METALS			
Beryllium, Be	<0.01	<0.01	<0.01
Chromium Trivalent, Cr^{+3}	<0.01	<0.01	<0.01
Chromium Hexavalent, Cr^{+6}	<0.01	<0.01	<0.01
Nickel, Ni	<0.01	<0.01	<0.01

Results expressed in mg/l unless otherwise designated. < = Less Than.
Our Florida Department of Health & Rehabilitative Service Identification Number is 83141.

Respectfully submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

REPORT OF ANALYSIS

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report #: 41917 (4379)
Sampled by: OLI-M. Smar/D. Bungo
Date sampled: 05-11-84
Date received: 05-11-84
Date reported: 07-17-84

IDENTIFICATION: #4. SW-9 #5. SW-11 #6. SW-12

2.1.d

RESULTS OF ANALYSIS

MISCELLANEOUS	#4	#5	#6
Ammonia, ionized	0.07	0.04	0.16
Ammonia, unionized	0.03	0.0005	0.0013
Total Kjeldahl Nitrogen, TKN	0.98	0.98	1.30
Total Nitrogen, TN	0.98	0.98	1.30
Nitrite Nitrogen, N (NO_2-N)	<0.01	<0.01	<0.01
Nitrate Nitrogen, N (NO_3-N)	0.39	<0.02	<0.02
Organic Nitrogen, ON	0.91	0.94	1.14
Fecal Coliform/100 ml (MFT)	<1	6	<1
Total Coliform/100 ml (MFT)	3	7	2
Oil & Grease, infrared	<0.1	<0.1	<0.1
BOD_5-day	2.9	5.0	12.0
Cyanide, CN	<0.005	<0.005	<0.005
Chemical Oxygen Demand, COD	48.0	38.0	65.0
Dissolved Oxygen, DO (Field-Fixed)	*	9.55	0.5
Total Phosphate, P (T-PO_4-P)	0.22	0.16	<0.03

MISCELLANEOUS - METALS			
Beryllium, Be	<0.01	<0.01	<0.01
Chromium Trivalent, Cr^{+3}	<0.01	<0.01	<0.01
Chromium Hexabalent, Cr^{+6}	<0.01	<0.01	<0.01
Nickel, Ni	<0.01	<0.01	<0.01

*Sample not field-fixed, no value.

Results expressed in mg/l unless otherwise designated. < = Less Than
Our Florida Department of Health & Rehabilitative Service Identification Number is 83141.

Respectfully submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

REPORT OF ANALYSIS

Post, Buckley, Schuh & Jernigan, Inc. Report #: 41917 (4379)
Attn: Mr. David E. Deans, P.E. Page 16 of 19

IDENTIFICATION: #1. SW-1 #2. SW-2 #3. SW-8 #4. SW-9

2.1.c

ACID EXTRACTABLE ORGANICS	#1	#2	#3	#4
Phenol	<0.01	<0.01	<0.01	<0.01
2-Nitrophenol	<0.01	<0.01	<0.01	<0.01
4-Nitrophenol	<0.01	<0.01	<0.01	<0.01
2, 4-Dinitrophenol	<0.01	<0.01	<0.01	<0.01
2-Chlorophenol	<0.01	<0.01	<0.01	<0.01
2,4-Dichlorophenol	<0.01	<0.01	<0.01	<0.01
2,4,6-Trichlorophenol	<0.01	<0.01	<0.01	<0.01
2,4-Dimethylphenol	<0.01	<0.01	<0.01	<0.01
2-Methyl-4,6-Dinitrophenol	<0.01	<0.01	<0.01	<0.01
4-Chloro-3-Methyl Phenol	<0.01	<0.01	<0.01	<0.01
BASE NEUTRALS				
bis(2-Ethylhexyl)phthalate	<0.01	<0.01	<0.01	<0.01
Di-n-octyl phthalate	<0.01	<0.01	<0.01	<0.01
Dimethyl phthalate	<0.01	<0.01	<0.01	<0.01
Diethyl phthalate	<0.01	<0.01	<0.01	<0.01
Diethyl phthalate	<0.01	<0.01	<0.01	<0.01
Di-n-butyl phthalate	<0.01	<0.01	<0.01	<0.01
Butyl benzyl phthalte	<0.01	<0.01	<0.01	<0.01
PCB'S				
Aroclor 1016	<0.001	<0.001	<0.001	<0.001
Aroclor 1221	<0.001	<0.001	<0.001	<0.001
Aroclor 1232	<0.001	<0.001	<0.001	<0.001
Aroclor 1242	<0.001	<0.001	<0.001	<0.001
Aroclor 1248	<0.001	<0.001	<0.001	<0.001
Aroclor 1254	<0.001	<0.001	<0.001	<0.001
Aroclor 1260	<0.001	<0.001	<0.001	<0.001

Results expressed in mg/l unless otherwise designated. < = Less Than
Our Florida Department of Health & Rehabilitative Service Identification Number is 83141.

Respectfully submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

REPORT OF ANALYSIS

Post, Buckley, Schuh & Jernigan, Inc.
Attn: Mr. David E. Deans, P.E.

Report #: 41917 (4379)

IDENTIFICATION: #5. SW-11 #6. SW-12.
2.1.c

ACID EXTRACTABLE ORGANICS	#5	#6
Phenol	<0.01	<0.01
2-Nitrophenol	<0.01	<0.01
4-Nitrophenol	<0.01	<0.01
2, 4-Dinitrophenol	<0.01	<0.01
2-Chlorophenol	<0.01	<0.01
2,4-Dichlorophenol	<0.01	<0.01
2,4,6-Trichlorophenol	<0.01	<0.01
2,4-Dimethylphenol	<0.01	<0.01
2-Methyl-4,6-Dinitrophenol	<0.01	<0.01
4-Chloro-3-Methyl Phenol	<0.01	<0.01
BASE NEUTRALS		
bis(2-Ethylhexyl)phthalate	<0.01	<0.01
Di-n-octyl phthalate	<0.01	<0.01
Dimethyl phthalate	<0.01	<0.01
Diethyl phthalate	<0.01	<0.01
Diethyl phthalate	<0.01	<0.01
Di-n-butyl phthalate	<0.01	<0.01
Butyl benzyl phthalte	<0.01	<0.01
PCB'S		
Aroclor 1016	<0.001	<0.001
Aroclor 1221	<0.001	<0.001
Aroclor 1232	<0.001	<0.001
Aroclor 1242	<0.001	<0.001
Aroclor 1248	<0.001	<0.001
Aroclor 1254	<0.001	<0.001
Aroclor 1260	<0.001	<0.001

Results expressed in mg/l unless otherwise designated. < = Less Than
Our Florida Department of Health & Rehabilitative Service Identification Number is 83141.

Respectfully submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

REPORT OF ANALYSIS

Post, Buckley, Schuh & Jernigan, Inc. Report #: 41917 (4379)
Attn: Mr. David E. Deans, P.E. Page 18 of 19

IDENTIFICATION: #1. SW-1 #2. SW-2 #3. SW-8 #4. SW-9 #5. SW-11 #6. SW-12

2.1.c

~~PESTICIDES~~ Acid Extractable Organics	#1	#2	#3	#4
Phenol	<0.001	<0.001	<0.001	<0.001
2-Nitrophenol	<0.001	<0.001	<0.001	<0.001
4-Nitrophenol	<0.001	<0.001	<0.001	<0.001
2, 4-Dinitrophenol	<0.001	<0.001	<0.001	<0.001
2-Chlorophenol	<0.001	<0.001	<0.001	<0.001
2,4-Dichlorophenol	<0.001	<0.001	<0.001	<0.001
2,4,6-Trichlorophenol	<0.001	<0.001	<0.001	<0.001
2,4-Dimethylphenol	<0.001	<0.001	<0.001	<0.001
2-Methyl-4,6-Dinitrophenol	<0.001	<0.001	<0.001	<0.001
4-Chloro-3-Methyl Phenol	<0.001	<0.001	<0.001	<0.001

BASE NEUTRALS	#5	#6
bis(2-Ethylhexyl)phthalate	<0.001	<0.001
Di-n-octyl phthalate	<0.001	<0.001
Dimethyl phthalate	<0.001	<0.001
Diethyl phthalate	<0.001	<0.001
Diethyl phthalate	<0.001	<0.001
Di-n-butyl phthalate	<0.001	<0.001
Butyl benzyl phthalte	<0.001	<0.001

Results expressed in mg/l unless otherwise designated. < = Less Than
Our Florida Department of Health & Rehabilitative Service Identification Number is 83141.

Respectfully submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

REPORT OF ANALYSIS

Post, Buckley, Schuh & Jernigan, Inc. Report #: 41917 (4379)
Attn: Mr. David E. Deans, P.E. Page 19 of 19

IDENTIFICATION: #1. SW-1 #2. SW-2 #3. SW-8 #4. SW-9 #5. SW-11 #6. SW-12

Not on Tables

RADIOCHEMISTRY

SAMPLES

	GROSS ALPHA, pCi/l Storet # 01501	Counting error, pCi/l Storet # 01502
#1	2.3	± 2.2
#2	0.3	± 0.4
#3	0.5	± 0.8
#4	35.4	± 8.7
#5	1.0	± 1.4
#6	0.3	± 0.8

	RADIUM 226, pCi/l Storet # 09501	Counting error, pCi/l Storet # 09502
#1	<0.2	± 0.2
#2	<0.2	± 0.2
#3	<0.2	± 0.2
#4	1.0	± 0.2
#5	<0.2	± 0.2
#6	0.3	± 0.2

	RADIUM 228, pCi/l Storet # 11501	Counting error,pCi/l Storet # 11502
	<2.0	± 0.3
#1	<2.0	± 0.3
#2	<2.0	± 0.3
#3	<2.0	± 0.3
#4	<2.0	± 0.3
#5	<2.0	± 0.3
#6		

Results expressed in mg/l unless otherwise designated. < = Less Than
Our Florida Department of Health & Rehabilitative Service Identification Number is 83141.

Respectfully submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

Orlando Laboratories, Inc.
P. O. Box 19127 • Orlando, Florida 32814 • 305/896-6645

PRIMARY DRINKING WATER REGULATIONS ANALYSIS (ORG. & INORG.)

Post, Buckley, Schuh & Jernigan, Inc.
Attention: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report #: 42379 (4992)
Sampled by: OLI-D. Bungo/C. Baker
Date Sampled: 08-03-84 1200-1500 hrs
Date Received: 08-06-84
Date Reported: 09-24-84

Identification: Site 7, Surface #3, Temperature: 34°C, Depth: 0.5 ft, Specific Conductance: 230 umhos.

METHODS & LIMITS: In accordance with Federal Register-Vol. 40, No. 248, Part IV-Wednesday, December 24, 1975. U.S. Environmental Protection Agency, National Interim Primary Drinking Water Regulations.

2.1.b

CONTAMINANT	*MCL	SAMPLE
INORGANIC:		
Arsenic, As	0.05	<0.01
Barium, Ba	1.0	<0.10
Cadmium, Cd	0.010	<0.005
Chromium, Cr	0.05	<0.01
Lead, Pb	0.05	<0.01
Mercury, Hg	0.002	<0.0005
Selenium, Se	0.01	<0.005
Silver, Ag	0.05	<0.01
Fluoride, F	1.4 - 2.4	0.076
Turbidity, NTU	5	1.6
Nitrate Nitrogen, NO_3-N	10	<0.02
ORGANIC:		
Endrin	0.0002	<0.0001
Lindane	0.004	<0.001
Methoxychlor	0.1	<0.01
Toxaphene	0.005	<0.001
2,4-D	0.1	<0.01
2,4,5-TP (Silvex)	0.01	<0.001

Results are expressed in mg/l (ppm). *MCL - Maximum Contaminant Levels.
Our Florida Department of Health & Rehabilitative Services Laboratory Identification Number is 83141.

Respectfully Submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

GENERAL WATER ANALYSIS FOR
SECONDARY DRINKING WATER REGULATIONS

Post, Buckley, Schuh & Jernigan, Inc.
Attention: Mr. David E. Deans, P.E.
889 North Orange Avenue
Orlando, Florida 32801-1088

Report: 42379 (4992)
Sampled by: OLI-D. Bungo/C. Baker
Date Sampled: 08-03-84 1200-1500 hrs
Date Received: 08-06-84
Date Reported: 09-24-84

IDENTIFICATION: Site 7, Surface Water #3, Water appearance: Yellow.

METHODS

This water was analyzed according to "Standard Methods for the Examination of Water and Wastewater," Latest Edition, APHA, AWWA and WPCF.

2.1.a

RESULTS

DETERMINATION	(MCL)	mg/l	DETERMINATION	(MCL)	mg/l
Total Dissolved Solids, TDS	(500)	94	Hydrogen Sulfide, H_2S	[F-F]	<0.01
Phenolphthalein Alkalinity, $CaCO_3$		0	Specific Conductance, umhos		155
Total Alkalinity, $CaCO_3$		47.6	Foaming Agents (MBAS)	(0.5)	<0.01
Carbonate Alkalinity, $CaCO_3$		0	Sodium, Na	(160)	7.17
Bicarbonate Alkalinity, $CaCO_3$		47.6	Nitrate Nitrogen, N	(10)	<0.02
Carbonates, $CaCO_3$		0	Total Hardness, $CaCO_3$		<59.8
Bicarbonates, HCO_3		58.1	Calcium Hardness, $CaCO_3$		55.7
Hydroxides, as OH		0	Magnesium Hardness, $CaCO_3$		<4.12
Carbon Dioxide, CO_2		1.94	Calcium, Ca		22.3
Chloride, Cl	(250)	18.9	Magnesium, Mg		<1.00
Sulfate, SO_4	(250)	<1	Iron, Fe	(0.3)	0.21
Fluoride, F	(1.4-2.4)	0.076	Manganese, Mn	(0.05)	<0.05
pH (Laboratory)	(6.5-8.5)	7.7	Copper, Cu	(1.0)	0.01
pHs		8.31	Zinc, Zn	(5)	<0.05
Stability Index		8.92			
Saturation Index, corrosivity	(±0.2)	-0.61			
Color, PCU	(15)	60			
Odor Threshold	(3)	1			
Turbidity, NTU	(5)	1.6			

Our Florida Department of Health & Rehabilitative Services Identification Number is 83141.
Results expressed in mg/l unless otherwise designated. < = Less Than.
MCL - Maximum Contaminant Levels.

Signed: _____ / _____ /
Chemist/Biologist Chemist/Biologist Chemist/Biologist

IDENTIFICATION: Site 7, Surface Water #3.

2.1.d

MISCELLANEOUS METALS	SAMPLE
Beryllium, Be	<0.01
Chromium, trivalent, Cr^{+3}	<0.01
Chromium, hexavalent, Cr^{+6}	<0.01
Nickel, Ni	<0.02

MISCELLANEOUS	
Ammonia Nitrogen, N (ionized)	0.12
Ammonia Nitrogen, N (unionized)	<0.03
Total Kjeldahl Nitrogen, TKN	2.13
Total Nitrogen, TN	2.13
Nitrate Nitrogen, N (NO_3-N)	<0.02
Nitrite Nitrogen, N (NO_2-N)	<0.01
Organic Nitrogen, ON	2.01
Fecal Coliform/100 ml (MFT)	<1
Total Coliform/100 ml (MFT)	360
Fecal Streptococci/100 ml (MFT)	19,700
Oil & Grease, infrared	<0.1
BOD_5-day	5.0
Cyanide, CN	<0.005
Chemical Oxygen Demand, COD	67
Dissolved Oxygen, DO (Field-Fixed)	11.3
Total Phosphate, P (T-PO_4-P)	0.05

BOD_5-day Analysis set up 08-04-84 @ 1600 hrs, analyzed 08-09-84 @ 1600 hrs.

Fecal Streptococci set up 08-04-84 @ 1500 hrs, read 08-06-84 @ 1500 hrs.

Coliform set up 08-04-84 @ 1500 hrs, read 08-05-84 @ 1220 hrs.

Results expressed in mg/l unless otherwise designated. < = Less Than.
Our Florida Department of Health & Rehabilitative Services Identification Number is 83141.

Signed: _____ / _____ / _____

Chemist/Biologist Chemist/Biologist Chemist/Biologist

2.1.c

Post, Buckley, Schuh & Jernigan, Inc. Report: 42379 (4992)
Attention: Mr. David E. Deans, P.E. Page 4 of 5

IDENTIFICATION: Site 7, Surface Water #3.

ACID EXTRACTABLE ORGANICS	
Phenol	<0.01
2-Nitrophenol	<0.01
4-Nitrophenol	<0.01
2,4-Dinitrophenol	<0.01
Pentachlorophenol	<0.01
2-Chlorophenol	<0.01
2,4-Dichlorophenol	<0.01
2,4,6-Trichlorophenol	<0.01
2,4-Dimethylphenol	<0.01
2-Methyl-4,6-Dinitrophenol	<0.01
4-Chloro-3-Methyl Phenol	<0.01
Chlorinated Creasols	<0.01
BASE NEUTRALS	
bis(2-Ethylhexyl)phthalate	<0.01
Di-n-octyl phthalate	<0.01
Dimethyl phthalate	<0.01
Diethyl phthalate	<0.01
Di-n-butyl phthalate	<0.01
Butyl benzyl phthalate	<0.01
PESTICIDES/PCB's	
Mirex	<0.001
Parathion	<0.001
Aldrin	<0.001
Dieldrin	<0.001
Chlordane	<0.001
DDT	<0.001
Demeton	<0.001
Endosulfan	<0.001
Guthion	<0.001
Aroclor 1016	<0.001
Aroclor 1221	<0.001
Aroclor 1232	<0.001
Aroclor 1242	<0.001
Aroclor 1248	<0.001
Aroclor 1254	<0.001
Aroclor 1260	<0.001

Results expressed in mg/l unless otherwise designated. < = Less Than.
Our Florida Department of Health & Rehabilitative Service Identification Number is 83141.

Respectfully submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist

IDENTIFICATION: Site 7, Surface Water #3.

Not on Table

RADIOCHEMISTRY	SAMPLE
Results expressed in pCi/l.	
Gross Alpha, Storet #01501	0.4
Counting error, Storet #01502	± 0.8
Radium 226, Storet #09501	<0.2
Counting error, Storet #09502	± 0.2
Radium 228, Storet #11501	<0.2
Counting error, Storet #11502	± 0.2

Results expressed in mg/l unless otherwise designated. < = Less Than.
Our Florida Department of Health & Rehabilitative Service Identification Number is 83141.

Respectfully submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist

Post Buckley, Schuh & Jernigan, Inc. Report #: 42333 (4946)
Attention: Mr. David E. Deans, P.E. 09-18-84 7 of 9

Identification: #1. SW-4 #2. SW-5 #3. SW-6 #4. SW-10

2.1.d

MISCELLANEOUS METALS	#1	#2	#3	#4
Beryllium, Be	<0.01	<0.01	<0.01	<0.01
Chromium, Hexavalent Cr^{+6}	<0.01	<0.01	<0.01	<0.01
Chromium, Trivalent Cr^{+3}	<0.01	<0.01	<0.01	<0.01
Nickel, Ni	<0.02	<0.02	<0.02	<0.02

MISCELLANEOUS				
Ammonia Nitrogen, N (ionized)	0.50	1.47	0.07	0.30
Ammonia Nitrogen, N (unionized)	<0.03	0.07	<0.03	0.03
Total Kjeldahl Nitrogen, TKN	4.37	4.16	1.0	1.08
Nitrate Nitrogen, N (NO_3-N)	<0.02	<0.02	<0.02	<0.02
Nitrite Nitrogen, N (NO_2-N)	<0.01	<0.01	<0.01	<0.01
Organic Nitrogen, ON	3.87	2.62	0.93	0.75
Total Nitrogen, TN	4.37	4.16	1.0	1.08
Oil & Grease, infrared	<0.1	<0.1	<0.1	<0.1
BOD_5-day	6.2	1.8	0.7	0.9
Cyanide, CN	<0.005	<0.005	<0.005	<0.005
Chemical Oxygen Demand, COD	95	72	55	51
Dissolved Oxygen, DO (Field-Fixed)	5.6	11.7	4.4	9.4
Fecal Coliform/100 ml (MFT)	6	11	53	300
Total Coliform/100 ml (MFT)	3,700	80	500	600
Total Phosphate, P (T-PO_4-P)	<0.03	<0.03	<0.03	<0.03
pH, units	7.0	7.7	7.5	8.1

BOD set up 07-30-84 @ 1600 hrs, analyzed 08-04-84 @ 1600 hrs.
Coliform set up 07-30-84 @ 1700 hrs, read 08-01-84 @ 1700 hrs.

Results are expressed in mg/l (ppm). *MCL - Maximum Contaminant Levels.
Our Florida Department of Health & Rehabilitative Services Laboratory Identification Number is 83141.

Respectfully Submitted,
ORLANDO LABORATORIES, INC.

Chemist/Biologist / Chemist/Biologist / Chemist/Biologist

Letter Dated July 2, 1985

ITEM 3: A dredge and fill jurisdicational of the project site was conducted prior to the passage of the Henderson Wetland Protection Act. This jurisdictional was not grandfathered pursuant to Chapter 17.4.022, FAC, and therefore is not a valid dredge and fill jurisdicational under the current rules. The acreage of jurisdicational wetland impacted given in Appendix 10.1 may therefore not be correct.

RESPONSE: The dredge and fill jurisdicational of the project site in regards to the recently passed Henderson Wetland Protection Act is currently being discussed with the Department of Environmental Regulation, southeast Florida district office. The acreage of jurisdictional wetland impacted by this project will be forwarded under a separate cover as soon as it is determined by the Department of Environmental Regulation, southeast Florida district office.

Letter Dated July 2, 1985

ITEM 4: No dredge and fill jurisdictional has been conducted for the transmission line corridor. The transmission line corridor is not included in the dredge and fill application in Appendix 10.1. No acreage of jurisdictional wetlands impacted by the transmission line is given.

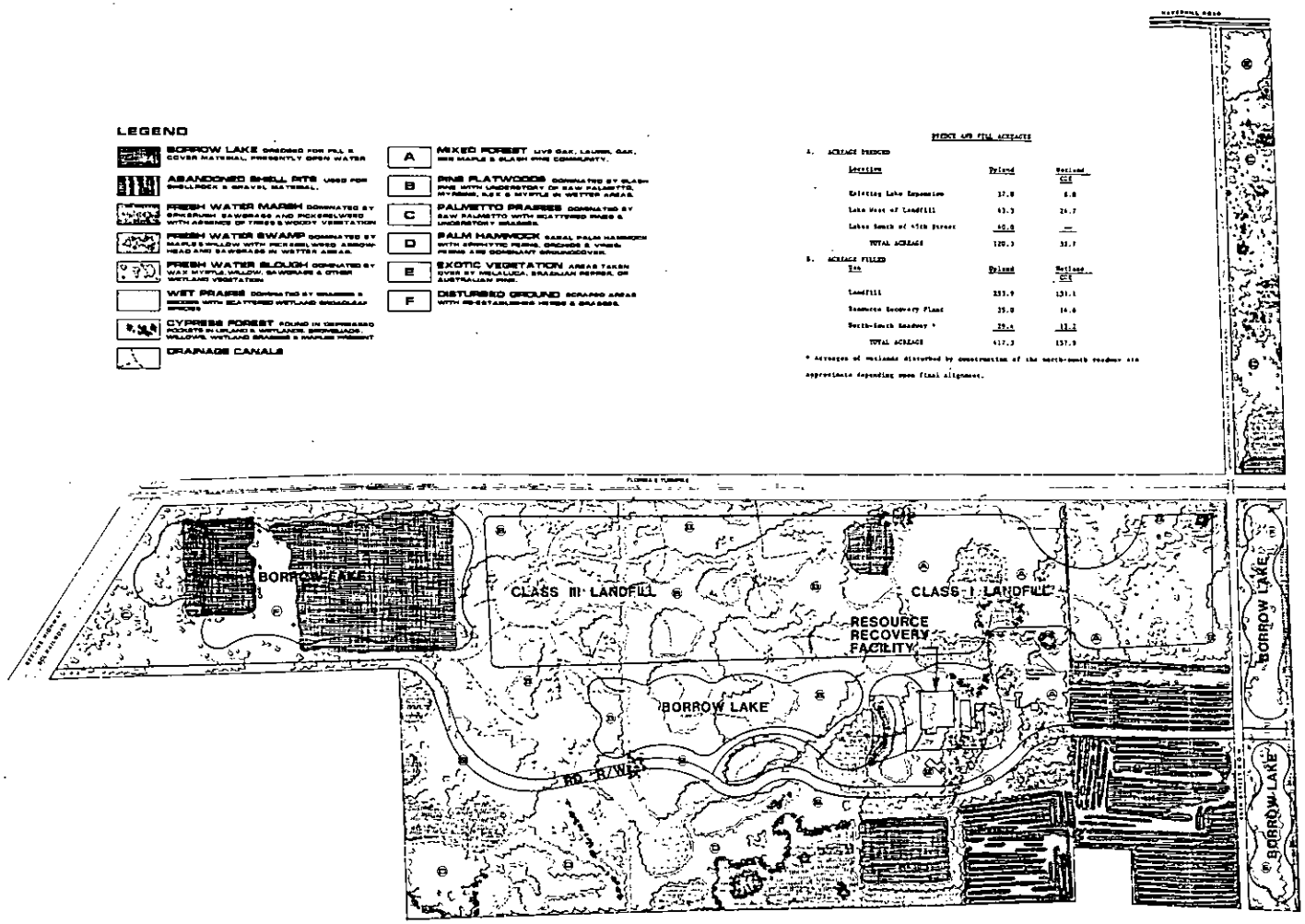
RESPONSE: The dredge and fill jurisdicational of the project site in regards to the recently passed Henderson Wetland Protection Act is currently being discussed with the Department of Environmental Regulation, southeast Florida district office. The acreage of jurisdictional wetland impacted by this project will be forwarded under a separate cover as soon as it is determined by the Department of Environmental Regulation, southeast Florida district office.

Letter Dated July 2, 1985

ITEM 5: A plan view drawing showing the location and indicating the acreage of created wetlands should be submitted.

RESPONSE: In order to show the locations of the wetlands which will be mitigated, two Figures have been developed. The accompanying Figure 5-1 shows the existing conditions of the Resource Recovery Facility site indicating the location of the proposed borrow lakes, Class I and III Landfills, resource recovery plant and the north-south roadway. Also, shown in table form are the dredge and fill acreages. The DER acreages are not shown. See Item Numbers 3 and 4 of this reponse concerning DER jurisdictional acreage.

The accompanying Figure 5-2 is the Master Site Plan showing the proposed areas of mitigated wetlands. The mitigated wetland areas are the existing shell pits and the littoral zones of the proposed borrow lakes. The mitigated wetland details are shown on Figure 3D, Wetland Establishment, Appendix 10.1.4.

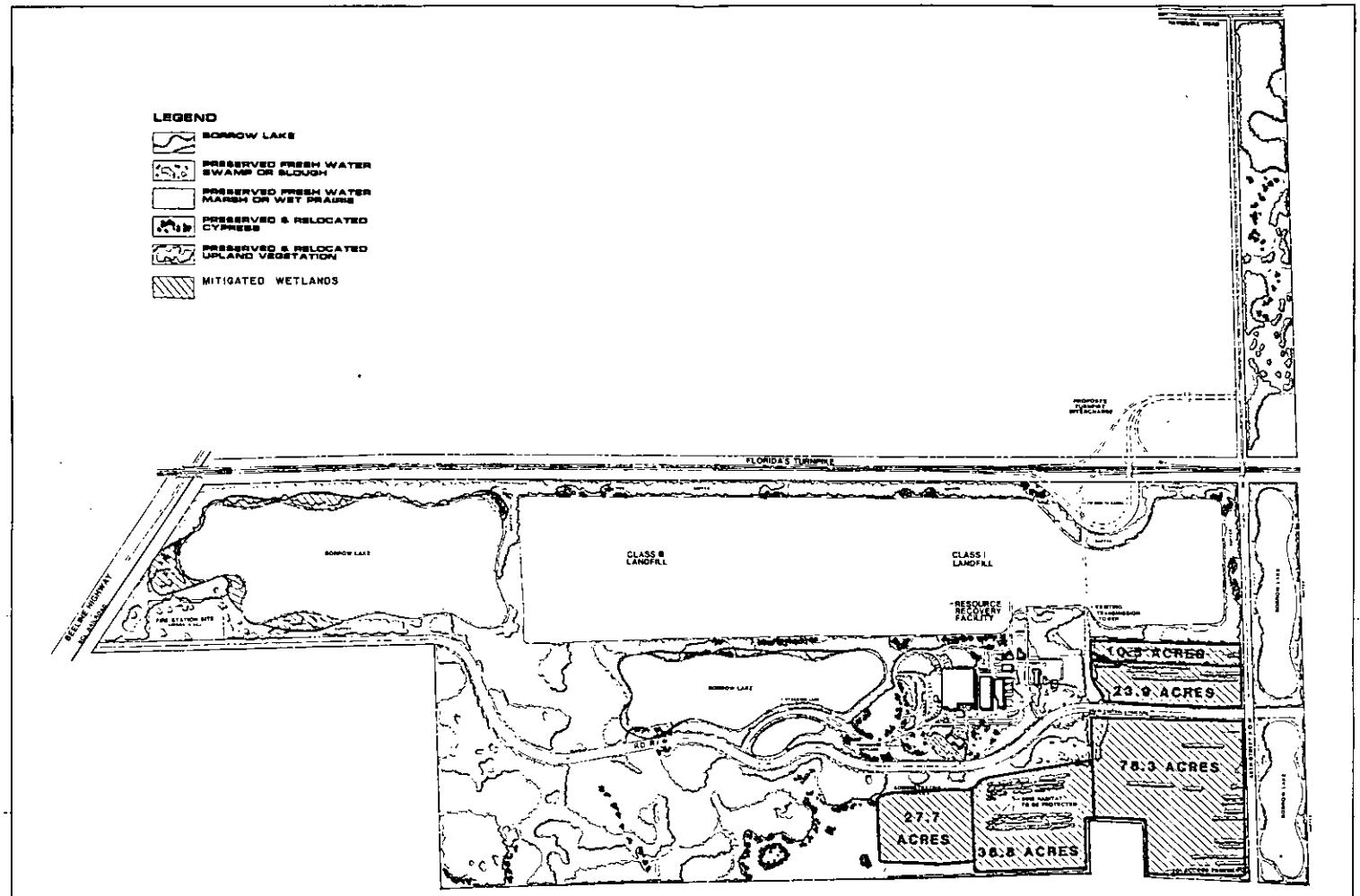


RESPONCE: JULY 2, 1985 FIGURE 5-1

PALM BEACH COUNTY SOLID WASTE AUTHORITY

RESOURCE RECOVERY FACILITY

EXISTING CONDITIONS



TOTAL MITIGATED WETLANDS - ± 190 ACRES

RESPONCE: JULY 2, 1985 FIGURE 5-2

PALM BEACH COUNTY SOLID WASTE AUTHORITY

RESOURCE RECOVERY FACILITY

MASTER SITE PLAN

Letter Dated July 2, 1985

ITEM 6: Table 2.3-13, Table 3.3-1, and Table 3.4-1 do not agree with respect to sulfur content. Please explain.

RESPONSE: The second footnote of Table 2.3-13, Comparison of Impact of Palm Beach County RDF Fired Spreader Stoker Furnaces to De-Minimus Levels (ISC Model), should be corrected to read "Model analysis for SO_2 based on 2,100 TPD and a controlled emission factor of 9 lb/ton."

Tables 3.3-1 and 3.4-1 remain unchanged.

Letter Dated July 2, 1985

ITEM 7: Design criteria on page 3-11 (3.4.1.4.1.2) mentions that the furnaces will have assistance from gas fed auxiliary burners to aid in the combustion process, yet on page 3-7 (section 3.3) it states that no provision is made for auxiliary fuels except for natural gas which is to be used as a start-up fuel. Page 3-18 mentions natural gas and oil firing. Please clarify.

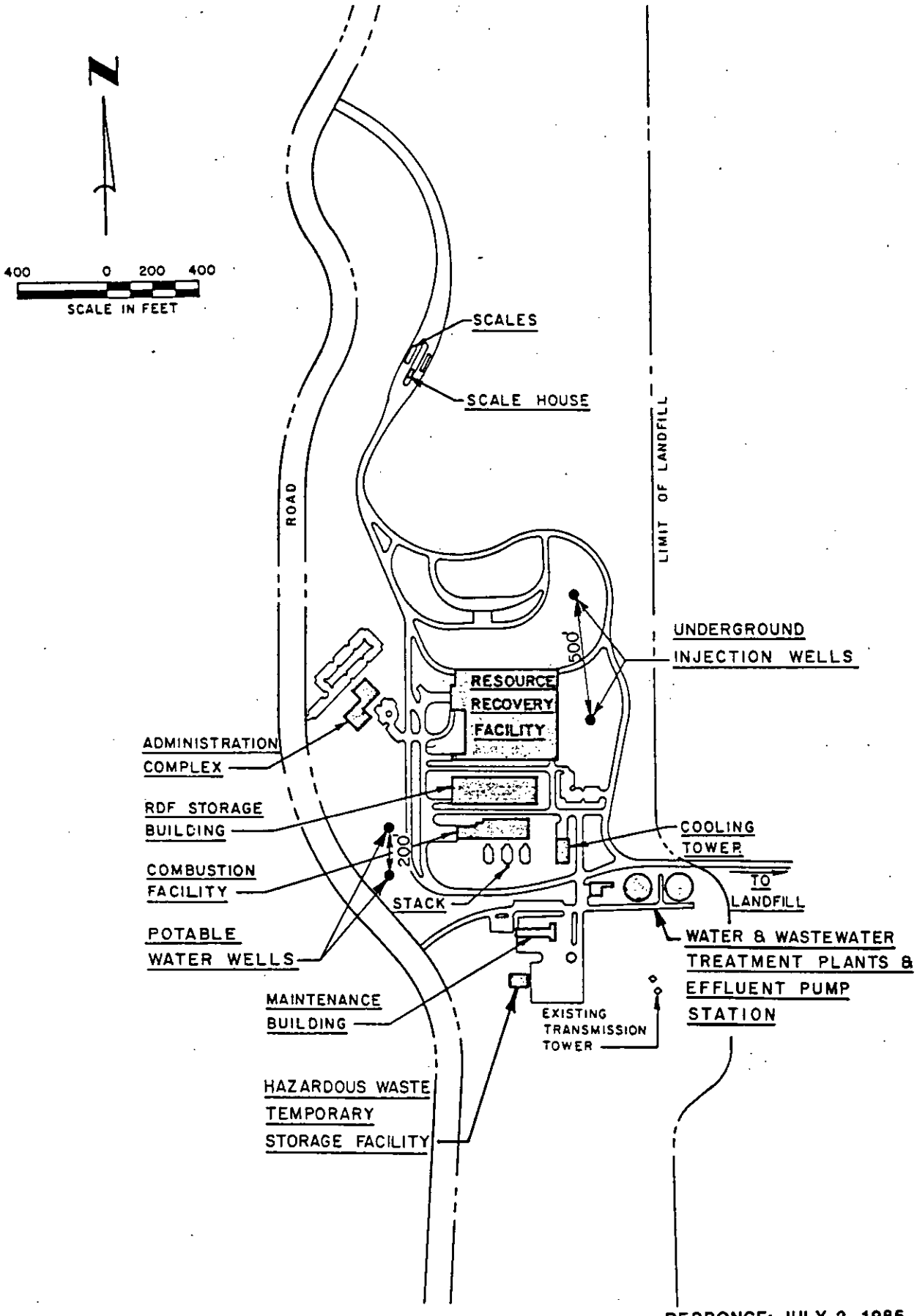
RESPONSE: To clarify the statements made on pages 3-7, 3-11 and 3-18 concerning the use of natural gas to assist the combustion process, the following sentence should be substituted on page 3-7, Section 3.3, Fuel, second paragraph. "Provisions will be made for auxiliary fuel firing of natural gas for start-up and shut-down of the furnace/stoker/boiler systems and also to assist the combustion process when RDF is wet or otherwise difficult to burn."

Letter Dated July 2, 1985

ITEM 8: Please show on the appropriate Figure or map the location of well DW 10A and its proximity to the proposed landfill.

RESPONSE: The location of the potable wells as described in Section 3.5.3, Potable Water Systems, are shown on the accompanying figure. As discussed, two wells will provide the potable water demands. The well DW 10A as discussed in the application will not be used as a supply source. However, the deep well water quality analysis as presented in Appendix 10.14 is an indication of the quality of water which is available on the site for a potable water system.

As shown on Figure 8-1, the wells will be located on the south western portion of the plant site. The two wells will be separated by a distance of approximately 200 feet. Each well will have a minimum separation of 200 feet to the nearest possible source of contamination. As the studies of the groundwater movement have indicated, the movement of groundwater on the site is from west to east. Locating the potable water wells on the southwest portion of the plant site will also protect the wells from sources of groundwater contamination.



RESPONCE: JULY 2, 1985

PALM BEACH COUNTY
SOLID WASTE AUTHORITY
RESOURCE RECOVERY FACILITY

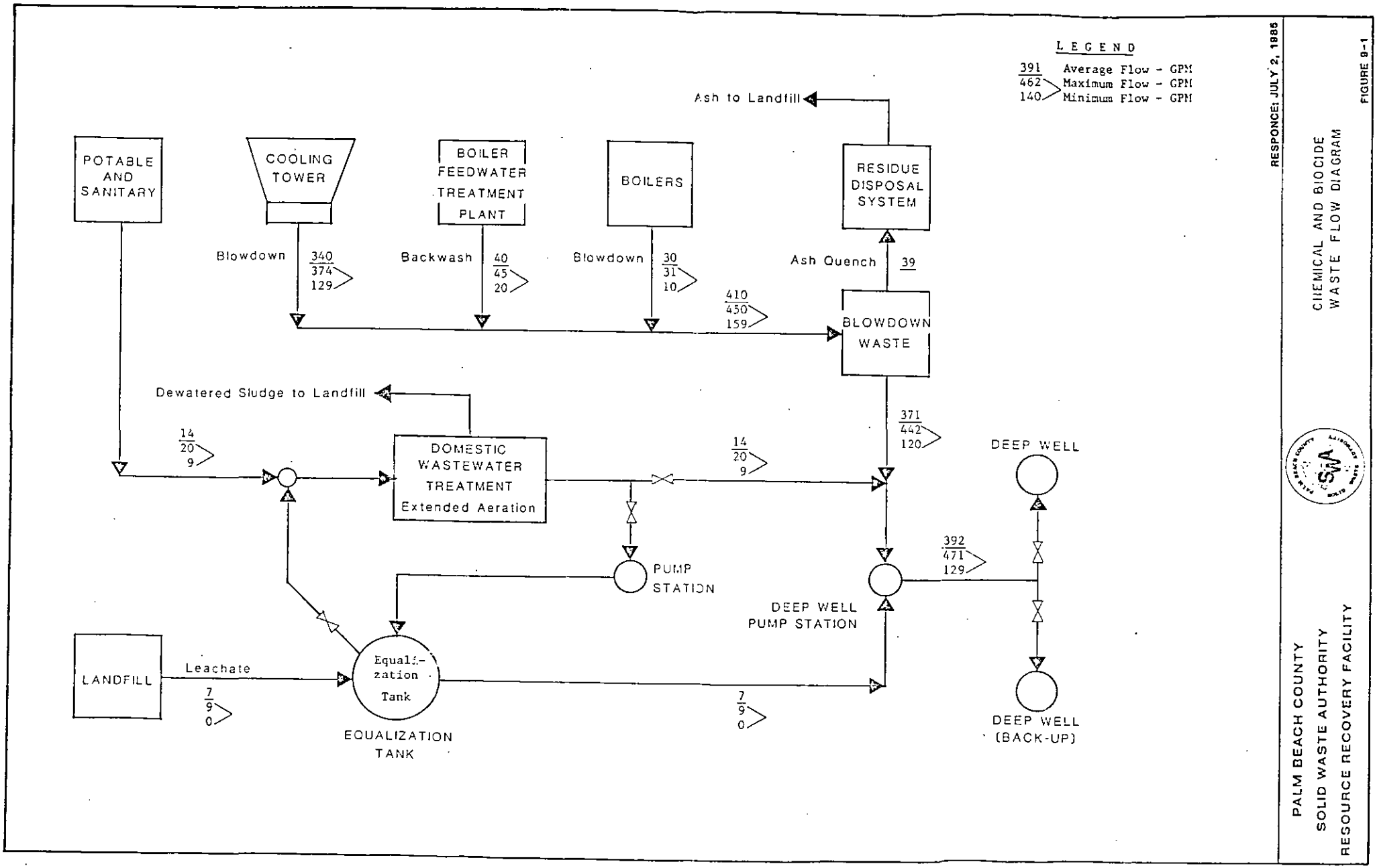
RESOURCE RECOVERY PLANT
SITE PLAN

FIG. 8-1

Letter Dated July 2, 1985

ITEM 9: No flow diagrams are provided as asked for in 3.6 of the application format guide for the chemical waste system.

RESPONSE: The chemical waste system flow diagram is shown on Figure 9-1.



PALM BEACH COUNTY
SOLID WASTE AUTHORITY
RESOURCE RECOVERY FACILITY

CHEMICAL AND BIOCIDE WASTE FLOW DIAGRAM

RESPONCE: JULY 2, 1986

FIGURE 8-1

Letter Dated July 2, 1985

ITEM 10: Does Palm Beach County have any plans to possibly use the ash in road construction, fill or other purposes?

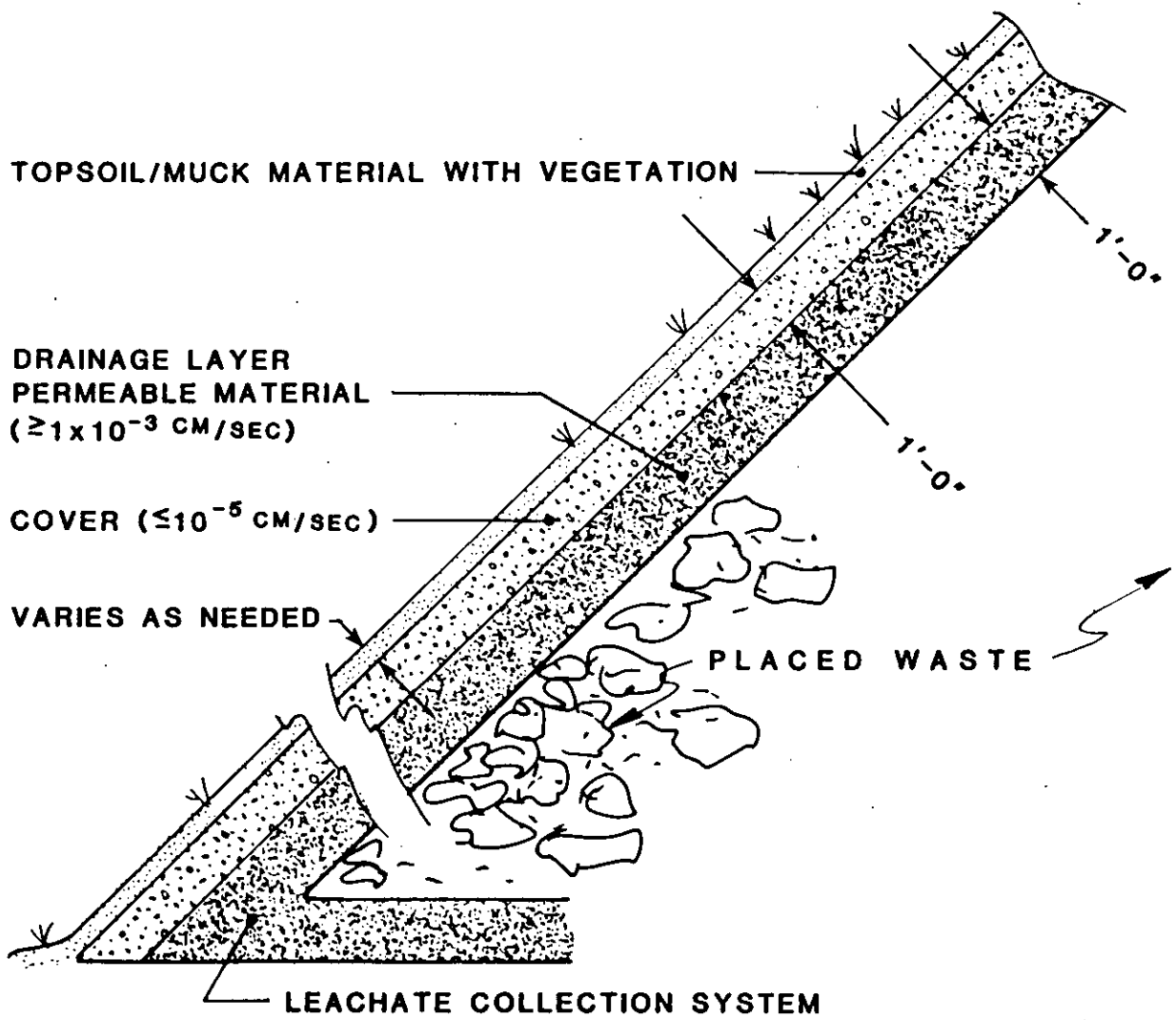
RESPONSE: At the present time the ash will be disposed of in the Class I Landfill as described in the Application. However, the ash will be tested for possible utilization in concrete, road construction or other beneficial uses if it is approved for such uses by the Department of Environmental Regulation.

Letter Dated July 2, 1985

ITEM 11: Could more specific information be provided on how Palm Beach County plans to keep stormwater run-off and leachate separated while the landfill is active?

RESPONSE: While the landfill is active, a leachate collection system will collect all rainfall which percolates through the landfill and becomes leachate. All runoff not coming into contact with solid waste will be directed to the conservation area via the drainage ditches. These ditches will be constructed during each phase according to the current topography. At closure they will be designed in accordance with the proposed plan.

Also, to insure against lateral seepage of leachate, a side slope drainage layer is proposed. The accompanying drawing illustrates the proposed drainage layer. This permeable drainage layer will be constructed between the outside cover material and the buried waste. If lateral and horizontal seepages occur, the drainage layer will intercept the leachate from migrating horizontally through the cover. In addition, rain water which penetrates through the side slope will be channeled downward by the less permeable layer to the leachate collection system.



RESPONCE: JULY 2, 1985

PBSJ

PROPOSED SIDE SLOPE DETAIL

N.T.S.

FIGURE 11-1

Letter Dated July 2, 1985

ITEM 12: If ash may be used as a daily cover for the Class III Landfill (page 3-43), why will only a single liner leachate collection system be utilized?

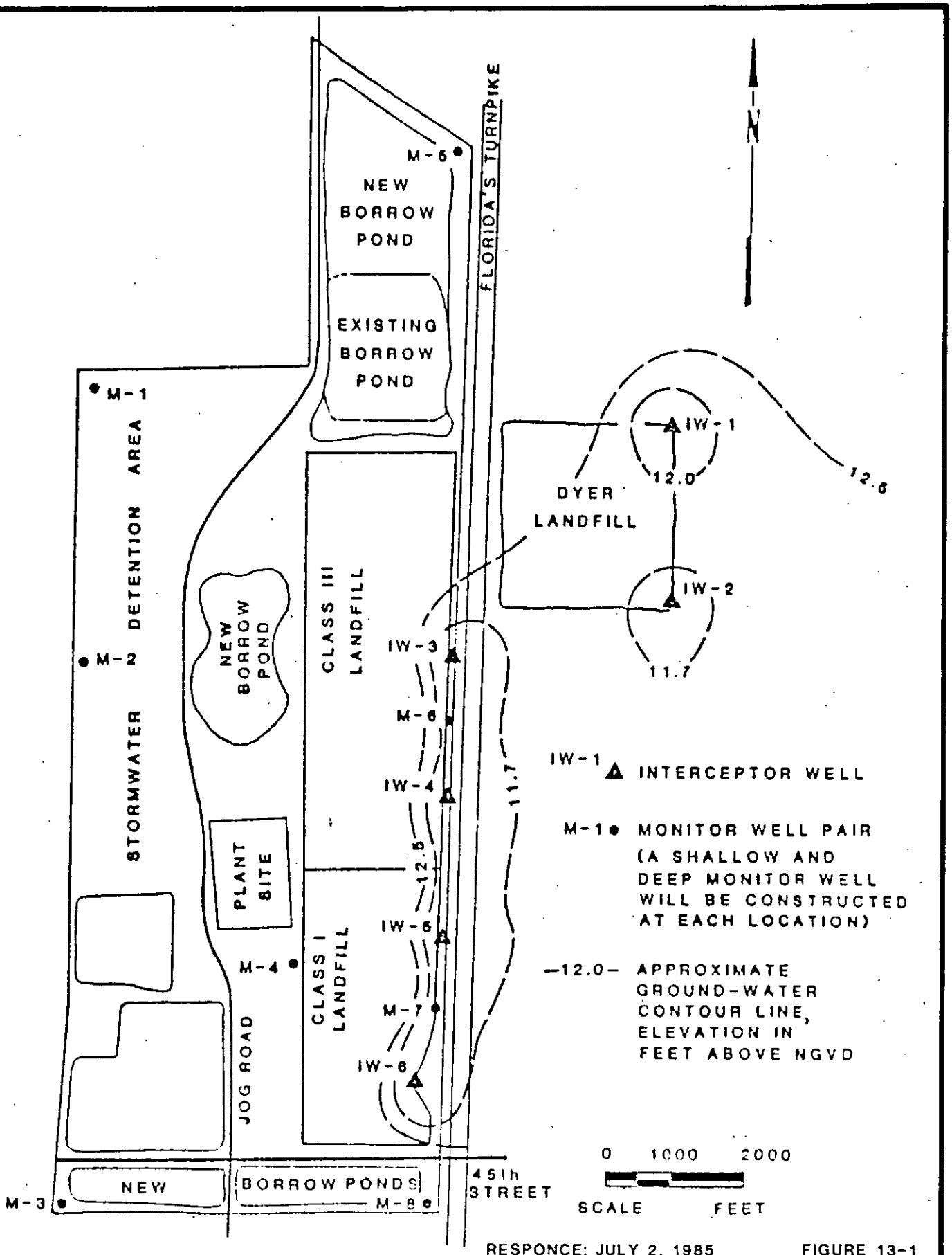
RESPONSE: As discussed in Section 3.7.1, ash will be used as weekly cover in the single-lined Class III landfill only if such practice has been proven to be environmentally sound and has received the approval of the Department of Environmental Regulation.

Letter Dated July 2, 1985

ITEM 13: Figure 4.2-1 is referenced to (page 5-9) but is not present in the application. Drawdown contours (plotted) are not present for the area within 5 miles of the plant's water supply wells.

RESPONSE: Figure 4.2-1 was inadvertantly omitted from the Application. This figure is first referred to on page 4-8 and should be placed after that page. Figure 4.2-1 is enclosed.

Drawdowns created by pumping the interceptor wells were calculated with the use of ground-water flow model described in Appendix 10.14.7. Contour lines representing drawdowns of 0.1 feet and 0.5 feet are shown on the accompanying Figure 13-2. These drawdowns were calculated by simulating water-availability during a 1-in-10-year dry-season drought after pumping 2 mgd for 180 days. These drawdowns will have no significant impact on neighboring water-supply wells. This matter also is discussed in Section 5.3.3 and Appendix 10.14.7.

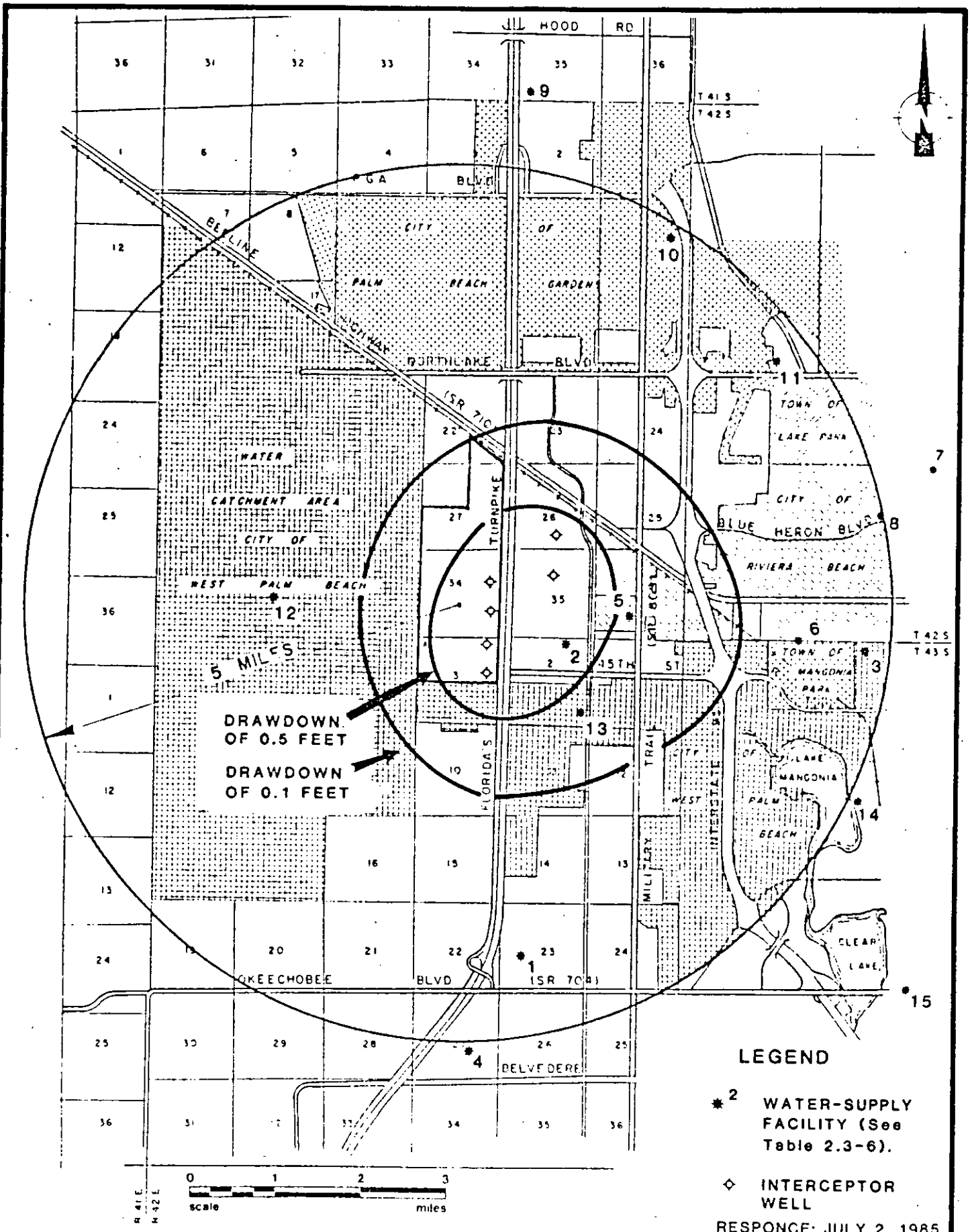


RESPONCE: JULY 2, 1985 FIGURE 13-1

PALM BEACH COUNTY
SOLID WASTE AUTHORITY
RESOURCE RECOVERY FACILITY

INTERCEPTOR AND MONITOR WELL LOCATIONS AND APPROXIMATE CONES OF DEPRESSION

Figure 4.2-1



PALM BEACH COUNTY
SOLID WASTE AUTHORITY
RESOURCE RECOVERY FACILITY

Cones of Depression Within Five Miles of the Resource Recovery Facility Caused by Pumping Interceptor Wells.

FIGURE 13-2

Letter Dated July 2, 1985

ITEM 14: In Section 4.5.2.2 please clarify what chemicals are potentially to be used for dust control.

RESPONSE: As discussed in Section 4.5.2.2, a comprehensive watering program is the best means of dust control in terms of cost effectiveness. The Solid Waste Authority currently uses watering as its primary means of dust control. The Authority also uses calcium chloride on a limited basis during the dry season for dust control

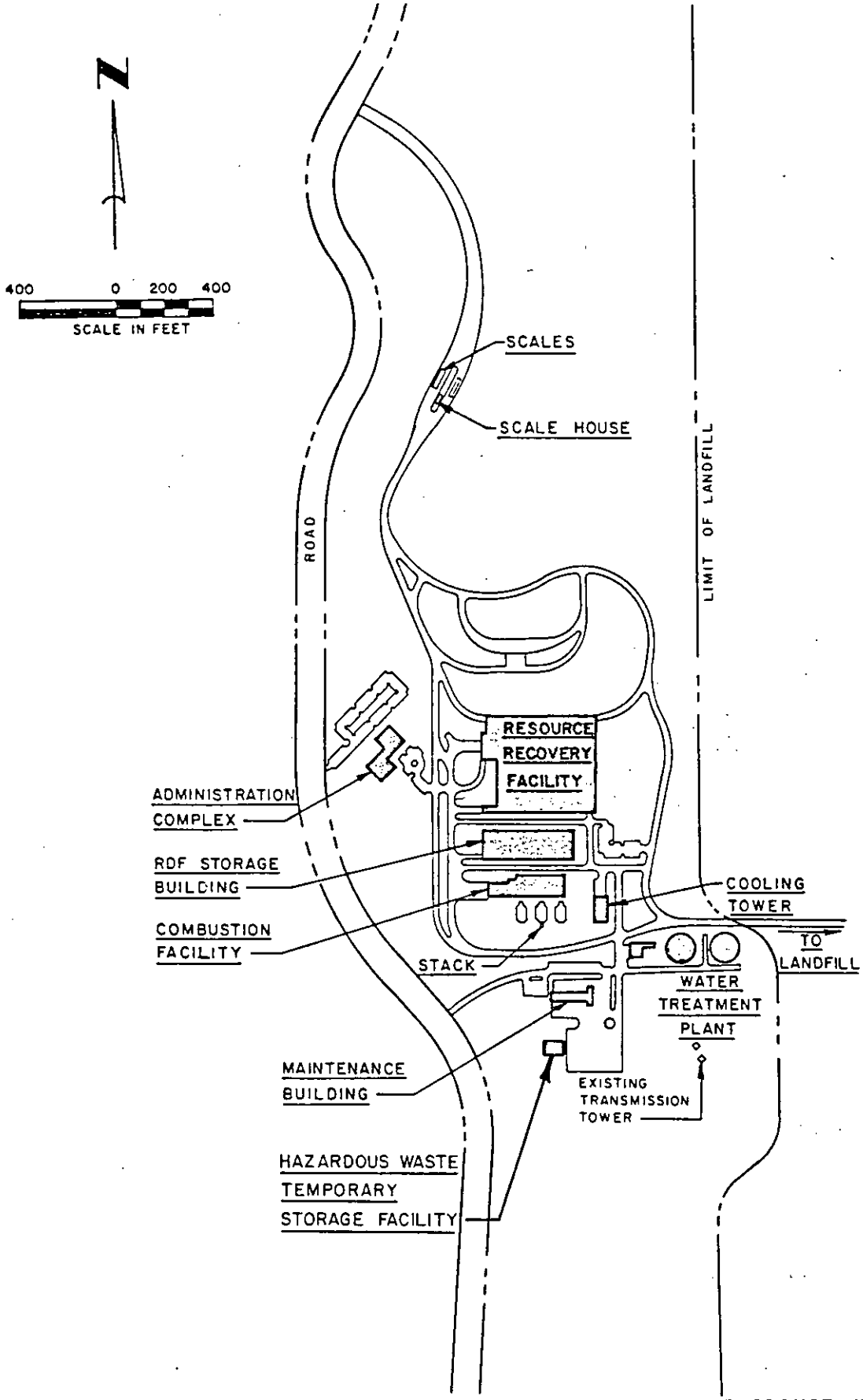
Authority personnel regularly study the use of other dust control products in terms of economic and environmental feasibility. One product currently being investigated is Coherex, a hard crude-oil resin. No product will be employed without prior approval by appropriate agencies.

Finally, all permanent roadways on the construction site will have a bituminous prime coat as early as possible in the process, reducing potential particulate emissions and the need for dust control measures.

Letter Dated July 2, 1985

ITEM 15: Location of the hazardous waste storage facility is not shown on any of the provided maps although it is mentioned that it will be located next to the maintenance building.

RESPONSE: The hazardous waste temporary storage facility will be located next to the maintenance building as shown on the accompanying Figure 15-1.



RESPONCE: JULY 2, 1985

PALM BEACH COUNTY
SOLID WASTE AUTHORITY
RESOURCE RECOVERY FACILITY

RESOURCE RECOVERY PLANT
SITE PLAN

FIG. 15-1

Letter Dated July 2, 1985

ITEM 16: What are the units for Table 5.3.1?

RESPONSE: Table 5.3.1, Soil Loss Summary, represents the expected soil loss in tons per year.

Letter Dated July 2, 1985

ITEM 17: When will Palm Beach County know if they will need a Special Exception to the RS zoning for a switching station?

RESPONSE: As presented in Chapter 6: "Transmission Lines and Other Linear Facilities", three (3) alternatives were presented for interconnecting with Florida Power and Light Company's system. The three alternatives are as follows:

1. A 138kV transmission line from the resource recovery plant substation south along the roadway across 45th Street to the south edge of the Authority's property, east along the south edge of the property across Florida's Turnpike to Haverhill Road, south on the west side of Haverhill Road right-of-way to the existing FP&L transmission corridor. Connection to the transmission line would be by gang operated disconnect switches. The Solid Waste Authority line would be protected as a part of the FP&L line by means of remote tripping.

2. This alternative is the same as No. 1 except that a switching station would be required at the FP&L transmission corridor.

3. The transmission line route is the same as No. 1 and after reaching the FP&L corridor, the transmission line would be continued north-east down the corridor approximately three (3) miles to the Riviera Beach Plant.

Negotiations are presently being held between Florida Power and Light Company and the Palm Beach County Solid Waste Authority to finalize the energy sales agreement and the method, location, and type of interconnection. As described in Chapter 6, only Alternate No. 2 would require a Special Exception to the current RS Zoning.

It is anticipated that negotiations with Florida Power and Light Company will proceed so that a determination of the interconnection will be decided within the next several weeks. For the present, all three (3) alternatives are still being considered.

Letter Dated July 2, 1985

ITEM 18: For section 6.1.9.1, list any herbicides proposed for use and provide aquatic organism toxicity data. Also discuss application techniques and impacts on off-property vegetation.

RESPONSE: The first choice for maintenance of the right of way will be mechanical control. In the event herbicidal control is necessary, only chemicals approved by the Florida Department of Agriculture and the Florida Department of Natural Resources for use in aquatic sites will be utilized. The chemicals to be considered will be:

- 2,4-D
- Glyphosate (ie., RODEO).

These compounds are approved for use in aquatic sites. Both are EPA registered. Aquatic organism toxicity data was developed and evaluated in both the EPA and the State of Florida registration processes. This data is available through both the manufacturer and the agencies responsible for herbicide registration. Generation references on herbicide toxicity to aquatic organisms are available from Mississippi State University[1] and the Weed Science Society of America[2].

Any herbicide application that may take place will be done through ground application. This eliminates drift problems that

may arise from aerial application. Invert emulsions, polymers and drift control adjuvants approved by the State of Florida and recommended by the manufacturer will be used where appropriate to prevent impacts on off-property vegetation.

1. Mississippi State University - Cooperative Extension Service. Publication 1455: Agricultural Chemical Toxicity to Selected Aquatic Animals: Bluehill, Channel Catfish, Rainbow Trout, Crawfish and Freshwater Shrimp.

2. Herbicide Handbook of the WSSA. 5th Edition. 1983. Published by the Weed Science Society of America.

Letter Dated July 2, 1985

ITEM 19: How many flail mills will there be?

RESPONSE: As shown in the application on Figure 3.1-2, Mass Balance, three (3) flail mills will be provided.

Letter Dated July 2, 1985

ITEM 20: Please fill out DER Form 17-1.209(9) for Construction and Operation of an Underground Injection Well. The information contained in the application insufficiently addresses the injection well.

RESPONSE: The DER Form 17-1.209(9) for the Construction and Operation of an Underground Injection Well accompanies this response.

Letter Dated July 2, 1985

ITEM 21: Are the air pollution impact modelling computer runs previously furnished to the department current?

RESPONSE: The air pollution impact modelling computer runs previously submitted to the Department of Environmental Regulation are current.