

Attachment 2: Photographs of the Site Conditions Provided by Bechtel (September 2008)



Photograph 1: View of Site, facing Northeast



Photograph 2: View of Site, facing East

Attachment 3: Photographs of the Site Conditions (December 2008)



Photograph 1: Area Surrounding Shovel Test 1 in Southern End of Site, facing East



Photograph 2: South-Central Area of Site, facing North



Photograph 3: View of Mudflats on Site, facing East



Photograph 4: View of Site, facing South

**Attachment 4: Photographs of the
Radial Collector Wells Conditions (March 2009)**



**Photograph 1: Shovel Test 1 in Radial Collector Wells Corridor
Illustrating Limestone Fill and Water, facing North**



**Photograph 2: Representative Photograph of Radial Collector Wells
in the Northeastern Portion of the Peninsula, facing North**



**Photograph 3: Representative Photograph of Radial Collector Wells
on the Western Portion of the Turkey Point Peninsula, facing Southeast**

**Attachment 5: Photographs of the
FPL Reclaimed Water Treatment Facility Conditions (March 2009)**



**Photograph 1: Shovel Test 8 within FPL Reclaimed Water Treatment Facility
Illustrating Water Table**



**Photograph 2: Cluster of Australian Pine and Brazilian Pepper
within FPL Reclaimed Water Treatment Facility, facing West-Northwest**

**Attachment 6: Photographs of the
FPL-Owned Fill Source Conditions (April 2009)**



**Photograph 1: Representative Photograph of Planted Palms
within the FPL-Owned Fill Source, facing South**



**Photograph 2: Disturbed Area adjacent to Planted Palms
Within FPL-Owned Fill Source, facing East**

Attachment 7: Cultural Regions of Florida



Attachment 8: 2003 SHPO Letter for the Turkey Point Power Plant Expansion (Unit 5)



FLORIDA DEPARTMENT OF STATE
Glenda E. Hood
Secretary of State
DIVISION OF HISTORICAL RESOURCES

Mr. Richard Zwolak
Golder Associates Inc.
5100 West Lemon Street, Suite 114
Tampa, Florida 33609

November 7, 2003

Re: DHR No. 2003-9076 / Received by DHR: October 17, 2003 *sent 11/10/03*
FPL Turkey Point Expansion Project
Miami-Dade County, Florida

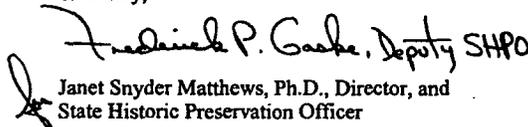
Dear Mr. Zwolak:

Our office received and reviewed the above referenced project in accordance with Section 106 of the *National Historic Preservation Act of 1966* (Public Law 89-665), as amended in 1992, *36 C.F.R., Part 800: Protection of Historic Properties*, Chapters 267, and 403, *Florida Statutes*, and implementing state regulations, regarding possible impact to historic properties listed, or eligible for listing, in the *National Register of Historic Places*, or otherwise of historical, architectural or archaeological value. The State Historic Preservation Officer is to advise and assist state and federal agencies when identifying historic properties (listed or eligible for listing, in the *National Register of Historic Places*), assessing the project's effects, and considering alternatives to avoid or reduce the project's effect on such properties.

A review of the Florida Master Site File and our records indicates that there are no recorded archaeological sites or historic structures located within the subject parcel. Based on the information provided, it is the opinion of this office that the proposed project will have no effect on historic properties listed, or eligible for listing, in the *National Register of Historic Places*, or otherwise of historical, architectural or archaeological value. However, fortuitous finds may occur within this parcel and our agency should be immediately notified if archaeological or historic remains are encountered. Ground disturbing activities in the immediate vicinity of artifact finds should also be halted until the area can be investigated. In the event that any unmarked human remains are encountered at anywhere on the subject property, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.

If you have any questions concerning our comments, please contact Samantha Earnest, Historic Sites Specialist, at searnest@dos.state.fl.us or (850) 245-6333. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,


Janet Snyder Matthews, Ph.D., Director, and
State Historic Preservation Officer

500 S. Bronough Street • Tallahassee, FL 32399-0250 • <http://www.flheritage.com>

<input type="checkbox"/> Director's Office (850) 245-6300 • FAX: 245-6435	<input type="checkbox"/> Archaeological Research (850) 245-6444 • FAX: 245-6436	<input checked="" type="checkbox"/> Historic Preservation (850) 245-6333 • FAX: 245-6437	<input type="checkbox"/> Historical Museums (850) 245-6400 • FAX: 245-6433
<input type="checkbox"/> Palm Beach Regional Office (561) 279-1475 • FAX: 279-1476	<input type="checkbox"/> St. Augustine Regional Office (904) 825-5045 • FAX: 825-5044	<input type="checkbox"/> Tampa Regional Office (813) 272-3843 • FAX: 272-2340	



FLORIDA DEPARTMENT OF STATE
Glenda E. Hood
Secretary of State
DIVISION OF HISTORICAL RESOURCES

June 9, 2003

David Gatchel
Golder Associates, Inc.
5100 West Lemon St. #114
Tampa, FL 33609
FAX (813) 287-1716

Dear Mr. Gatchel,

In response to your inquiry of June 9th, 2003, the Florida Master Site File lists no previously recorded archaeological sites, no standing structures, and one field survey in the following parcels of Dade County:

T57S, R40E, Sections: 27, 28

In interpreting the results of our search, please remember the following points:

- Areas which have not been completely surveyed, such as yours, may contain unrecorded archaeological sites or historical structures.
- While many of our records relate to historically significant properties, the entry of an archaeological site or an historical structure on the Florida Master Site File does not necessarily mean that the structure is significant.
- Since vandalism is common at Florida sites, we ask that you limit the distribution of location information on archaeological sites.
- As you may know, federal and state laws require formal environmental review for some projects. Record searches by the staff of the Florida Master Site File do not constitute such a review. If your project falls under these laws, you should contact the Compliance Review Section of the Bureau of Historic Preservation at 850-245-6333 or at this address.

If you have any further questions concerning the Florida Master Site File, please contact us as below.

Sincerely,

Patrick Gensler
Data Analyst, Florida Master Site File
Division of Historical Resources
R. A. Gray Building
500 South Bronough Street

Phone 850-245-6440, Fax: 850-245-6439
State SunCom: 205-6440
Email: fmsfile@mail.dos.state.fl.us
Web: <http://www.dos.state.fl.us/dhr/fmsff>

500 S. Bronough Street • Tallahassee, FL 32399-0250 • <http://www.flheritage.com>

Director's Office (850) 245-6300 • FAX: 245-6435
 Archaeological Research (850) 245-6444 • FAX: 245-6436
 Historic Preservation (850) 245-6338 • FAX: 245-6437
 Historical Museums (850) 245-6400 • FAX: 245-6423
 Palm Beach Regional Office
 St. Augustine Regional Office
 Tampa Regional Office

Attachment 9: Historic Plat Maps, Field Surveyor's Notes, and Aerial Photographs

- **Figure 1: 1875 GLO Plat Map of Township 58S, Range 40E and 1925 GLO Plat Map of Township 57S, Range 40E**
- **Figure 2: 1874 Field Surveyor's Notes for Township 58S, Range 40E**
- **Figures 3-6: Aerial Photographs Illustrating the APE (with the Exception of the FPL-Owned Fill Source and Spoils Areas)**
- **Figures 7-10: Aerial Photographs Illustrating the Spoils Areas APE**
- **Figures 11-14: Aerial Photographs Illustrating the FPL-Owned Fill Source APE**

40

T58 S R40E

Continued 3rd Mile - N Boundary Sec 4.

80.00 To Corner Section 4-3. 33. + 34 Set post
Mangrove 3 inches in dia N28 E 15
3 " " " N46 N 20
3 " " " S 17° E 16
3 " " " S 28 N 17

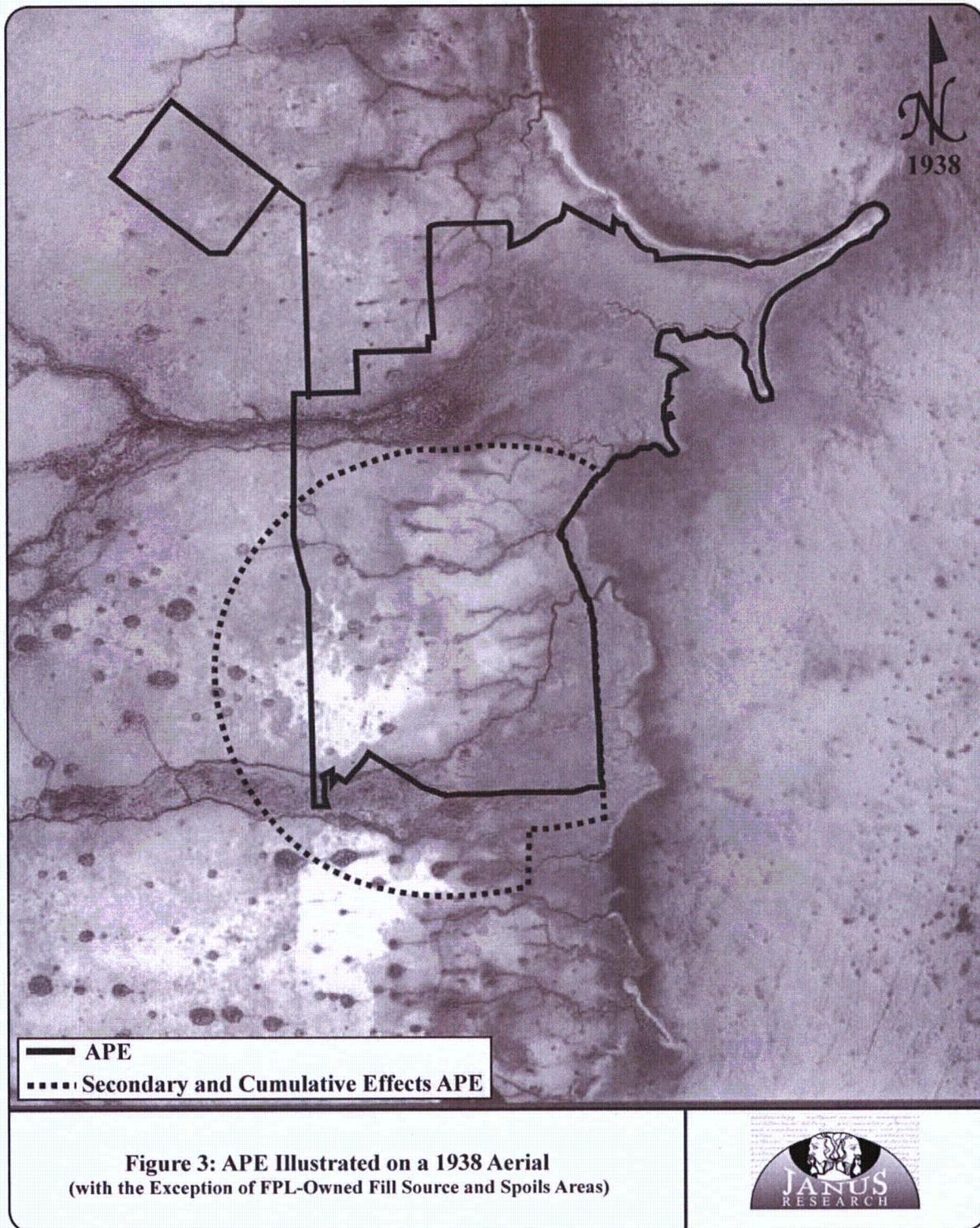
With the exception of a small hammock
balance Marsh. & Mangrove Swamp

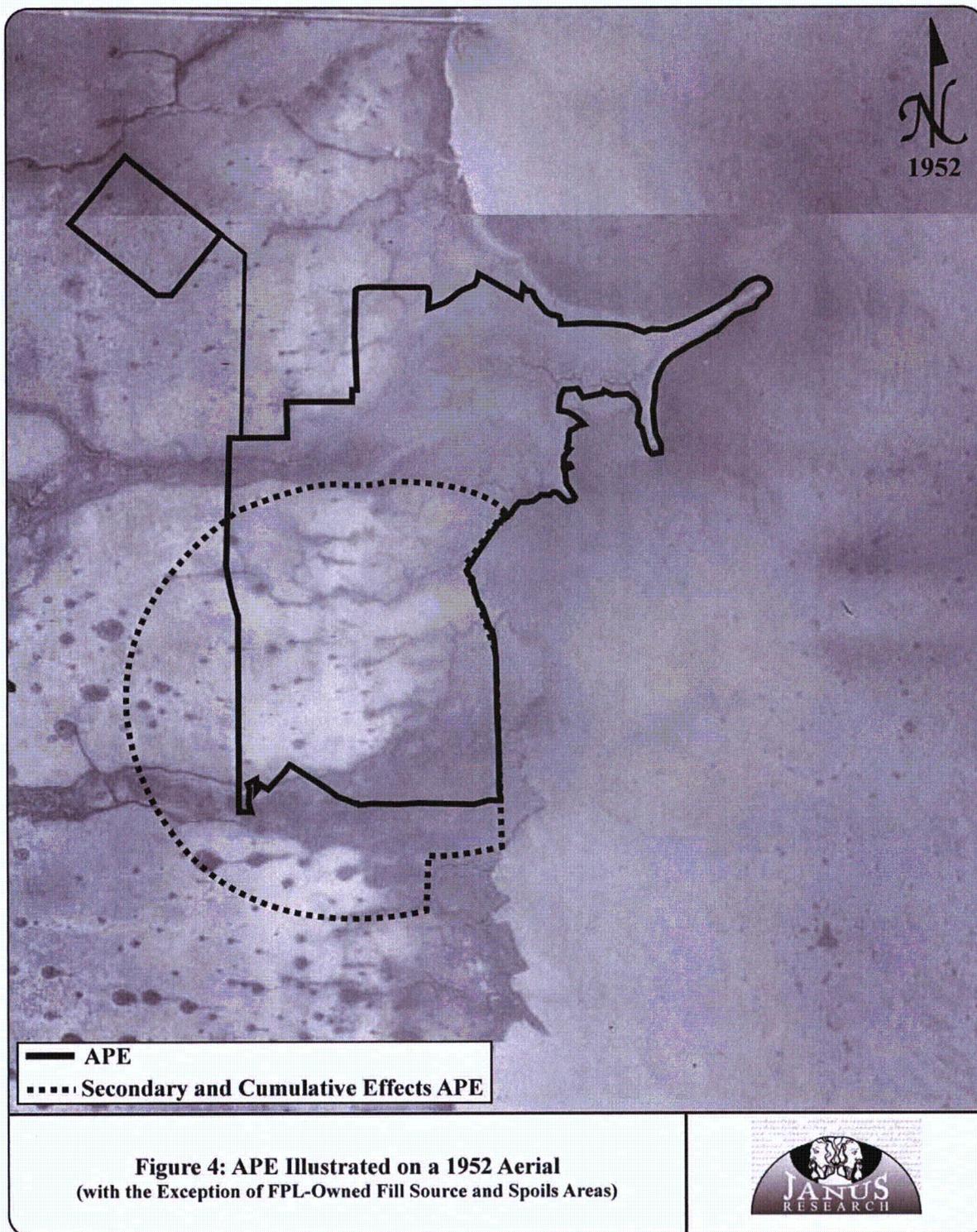
4th Mile East along North Boundary Sec 3

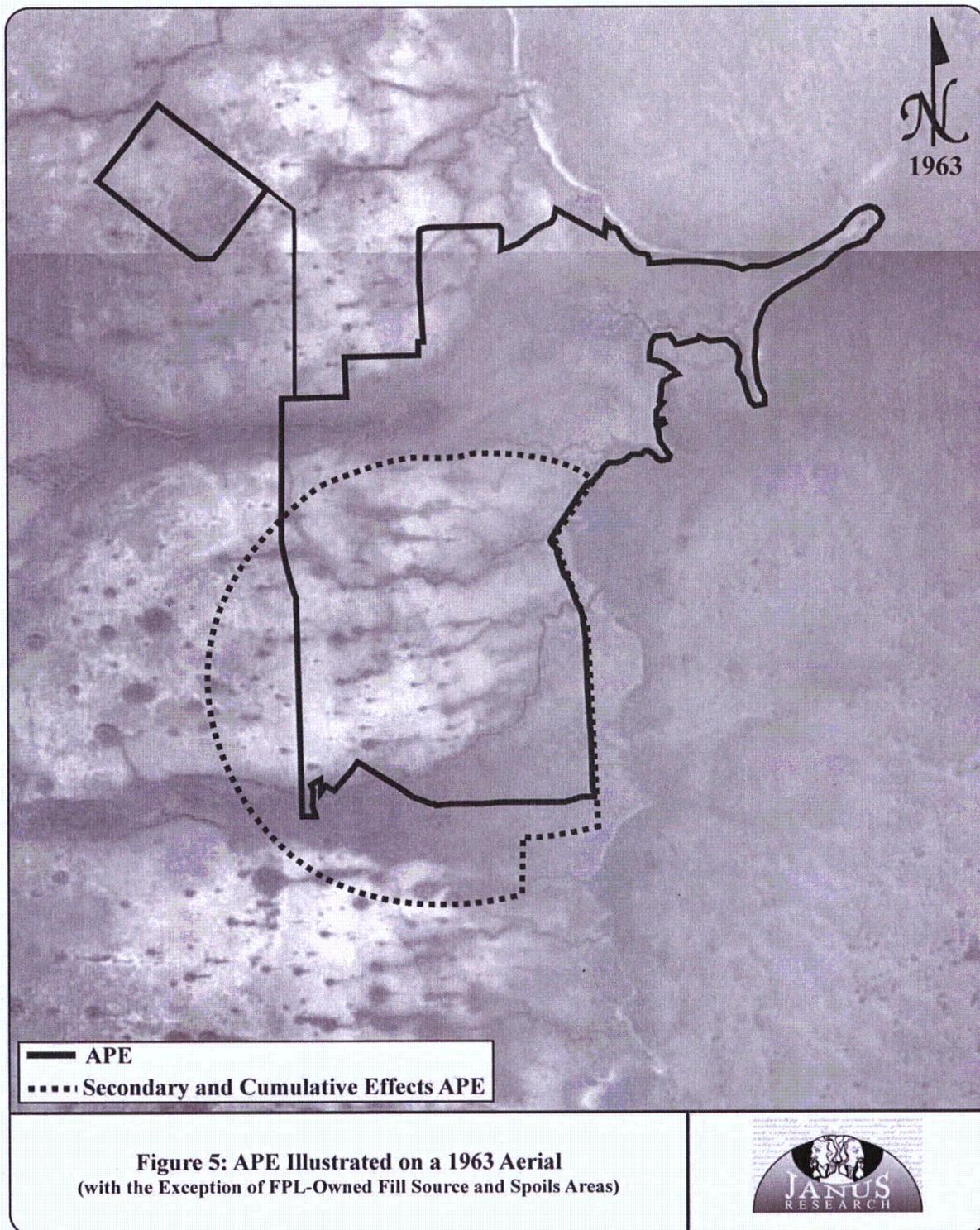
22.05 To Bucayne Bay Set post
Bearing Bottom Wood 4 inches in dia N 10 E 20
Black Mangrove 10 " " S 29 N 16
Mangrove Swamp -

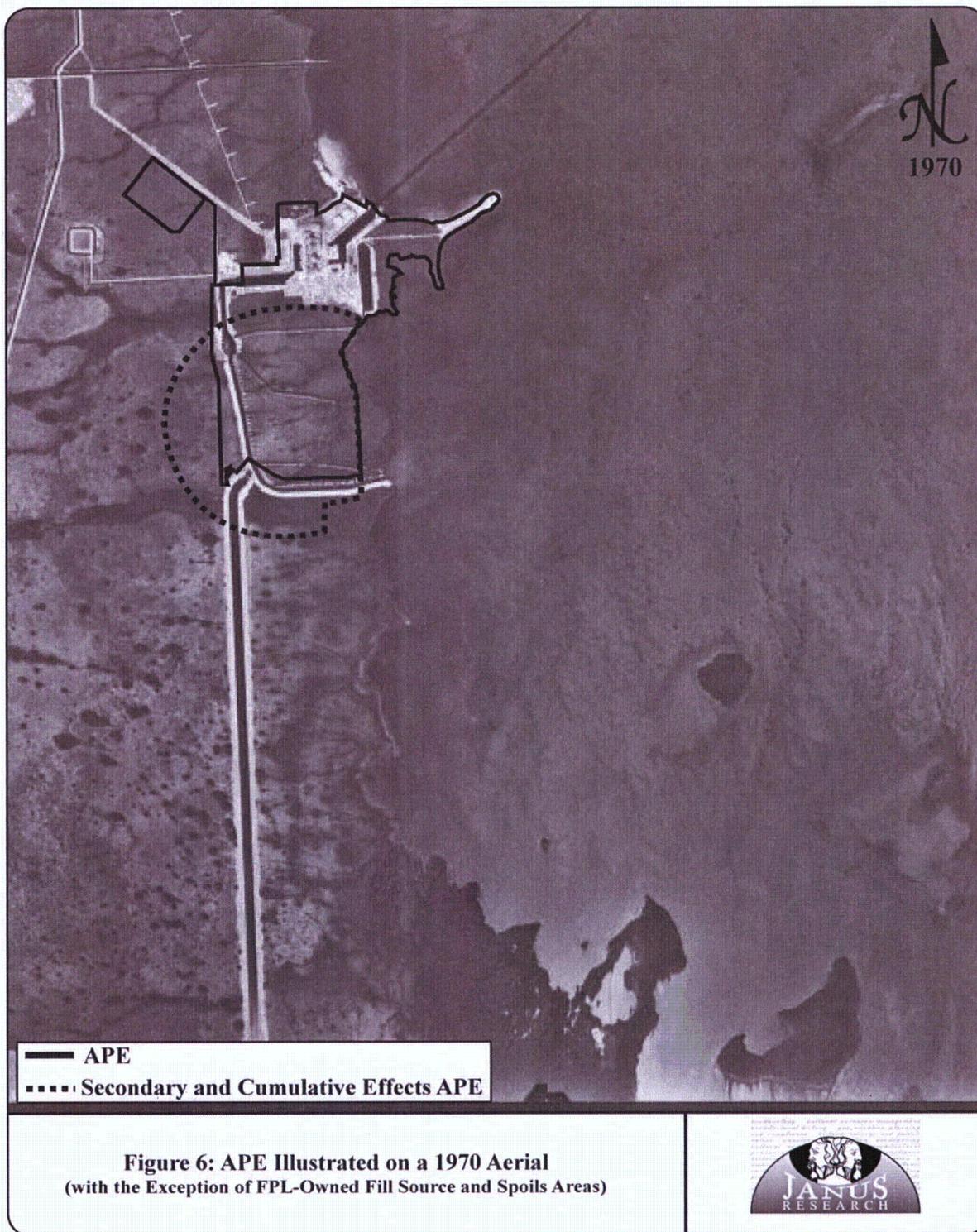
April 13. 1874

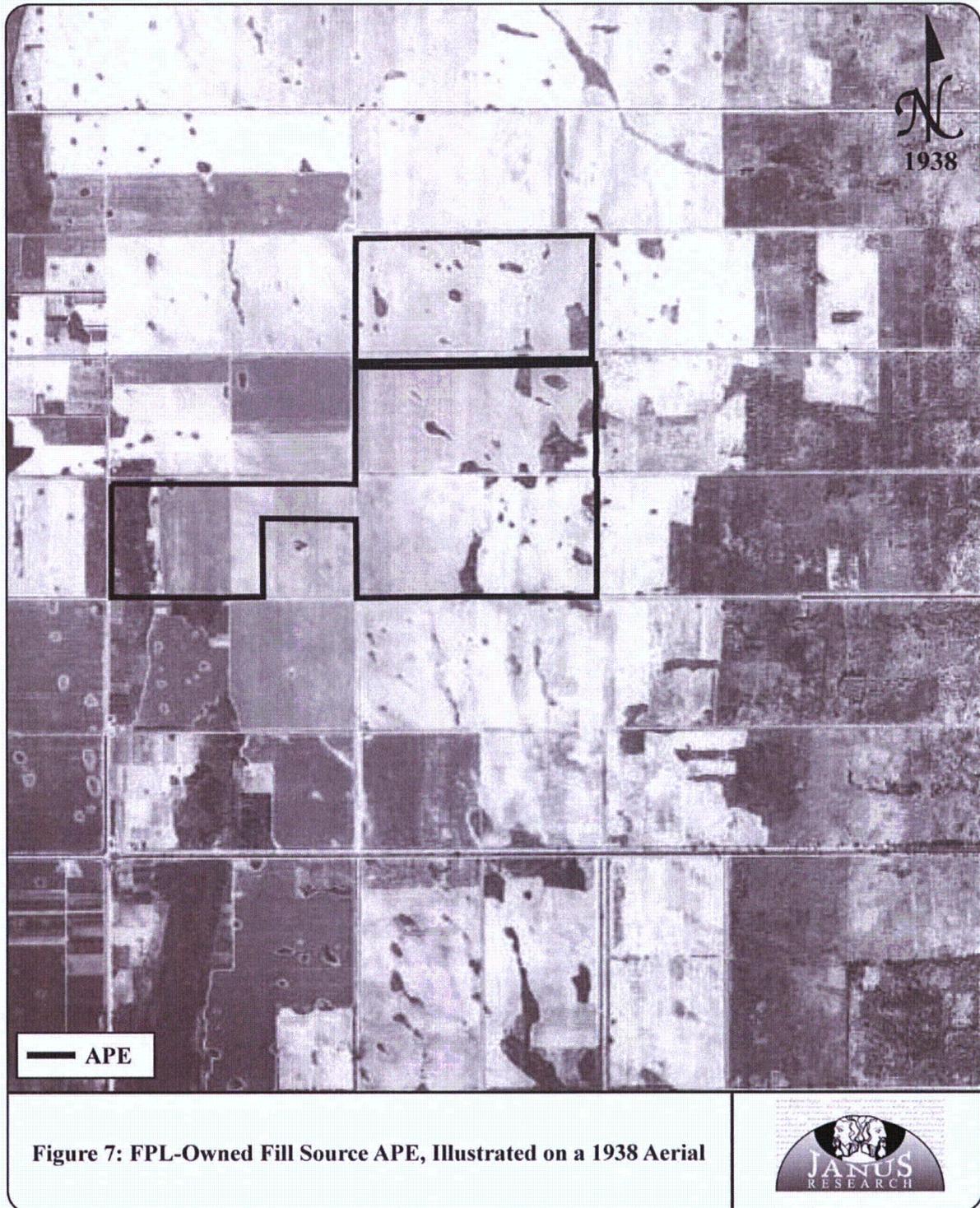
Figure 2: 1874 Field Surveyor's Notes for Township 58S, Range 40E

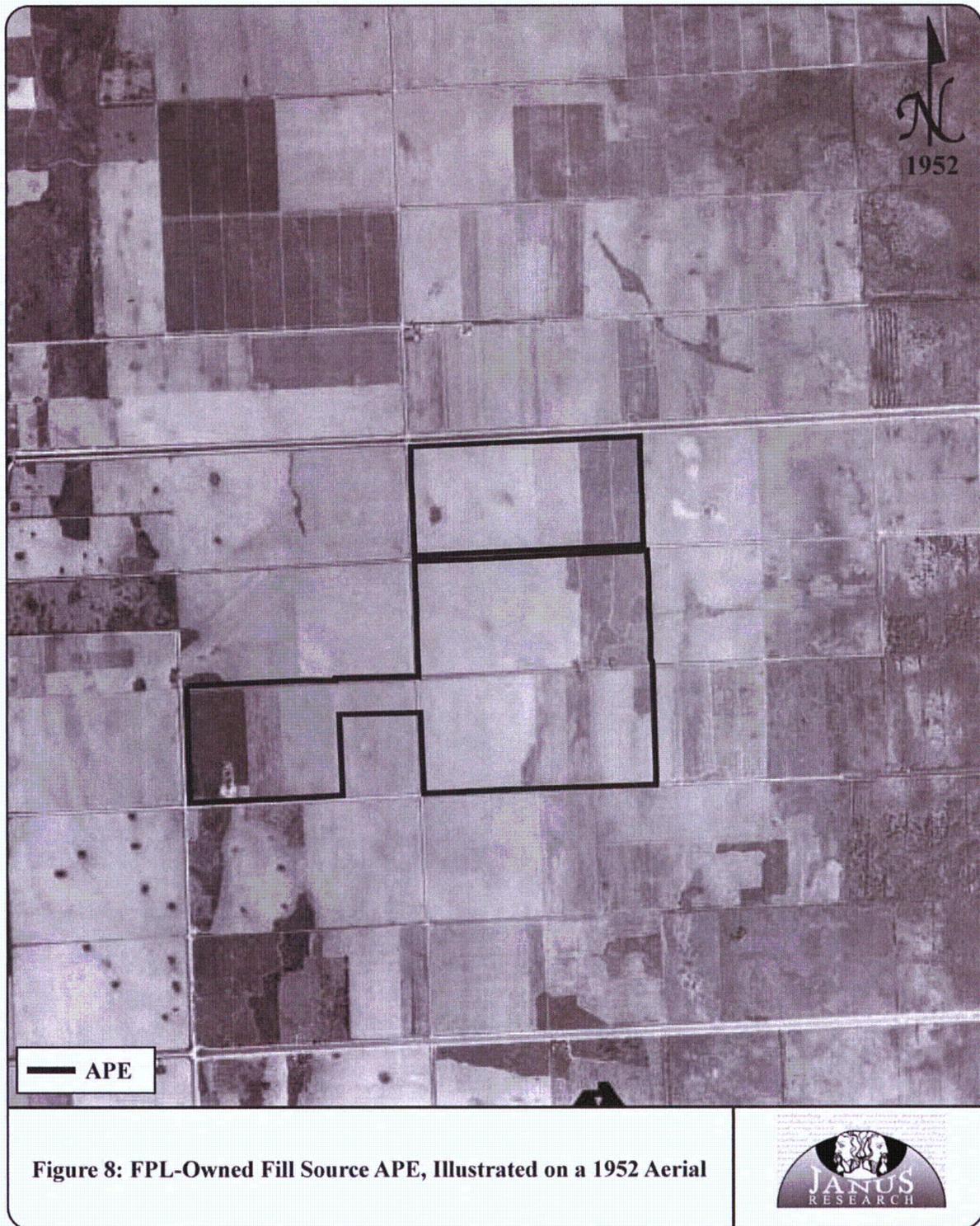


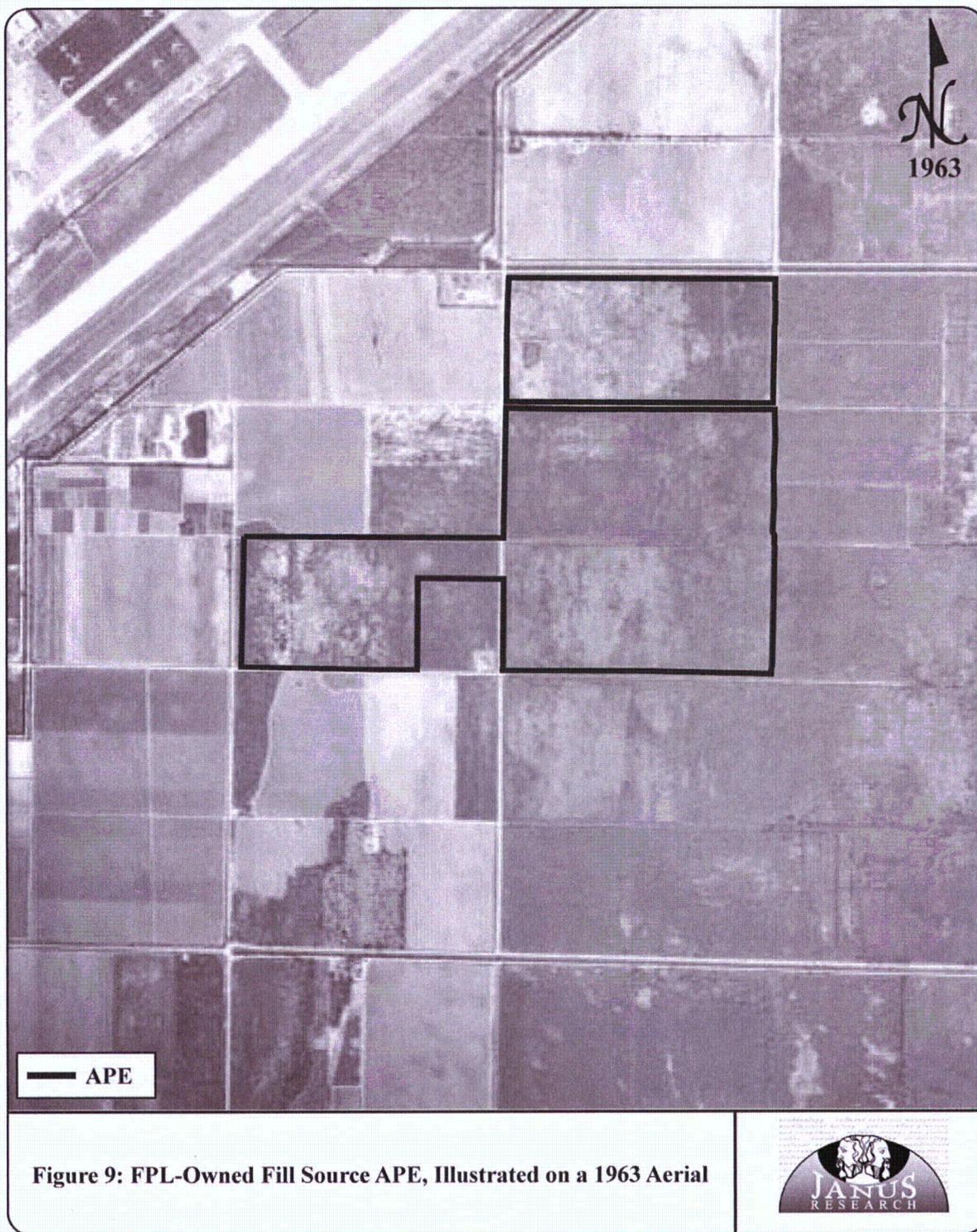


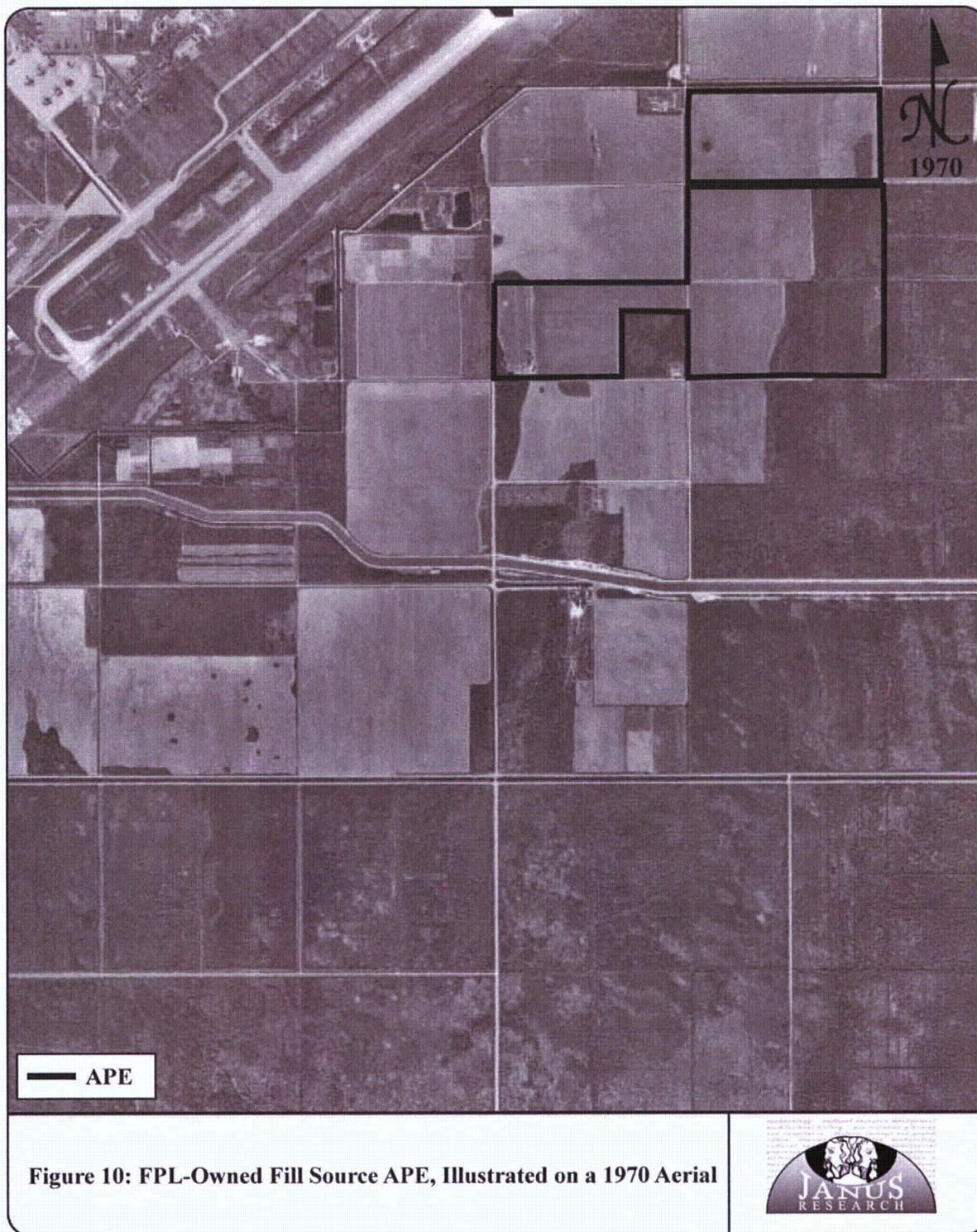


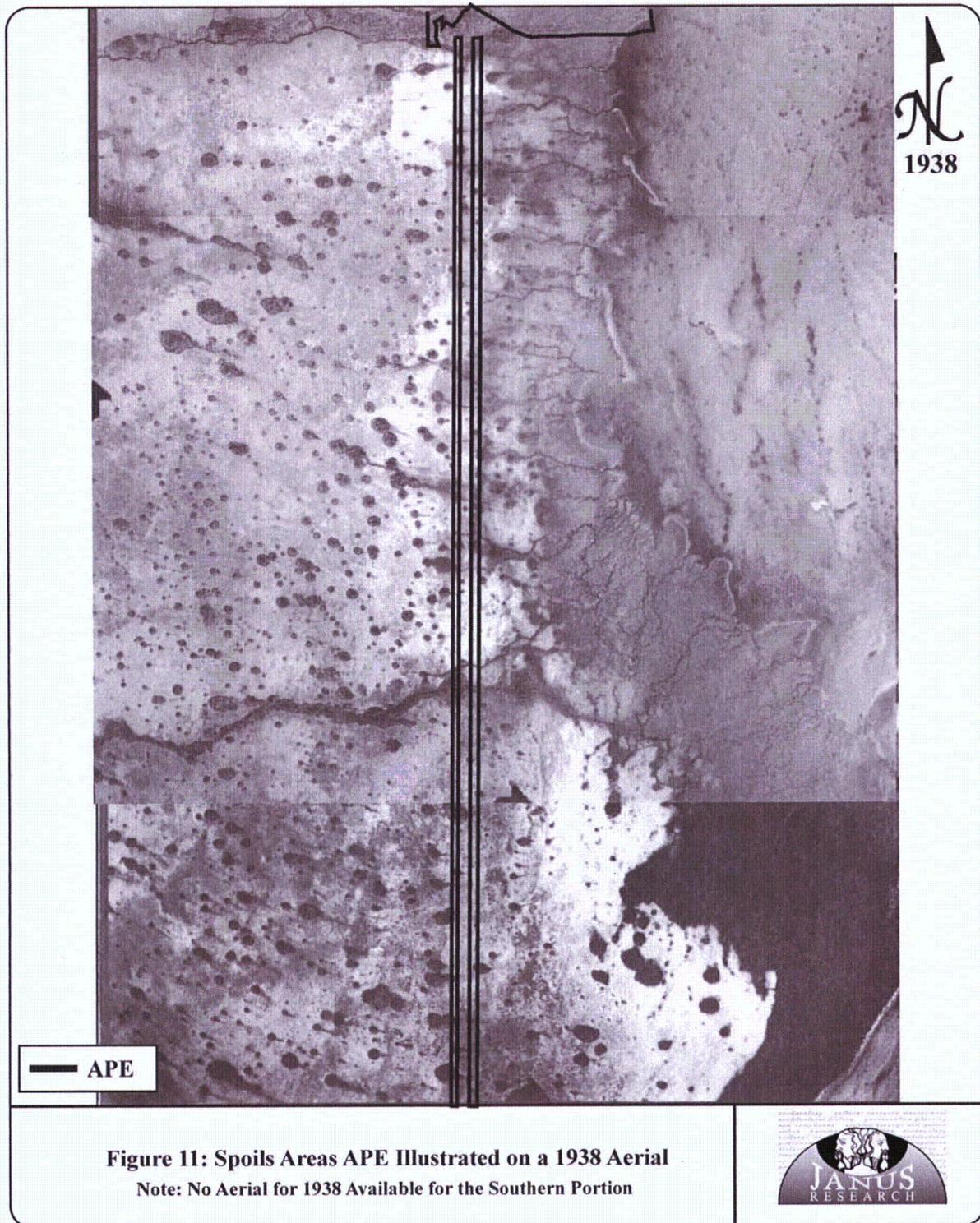












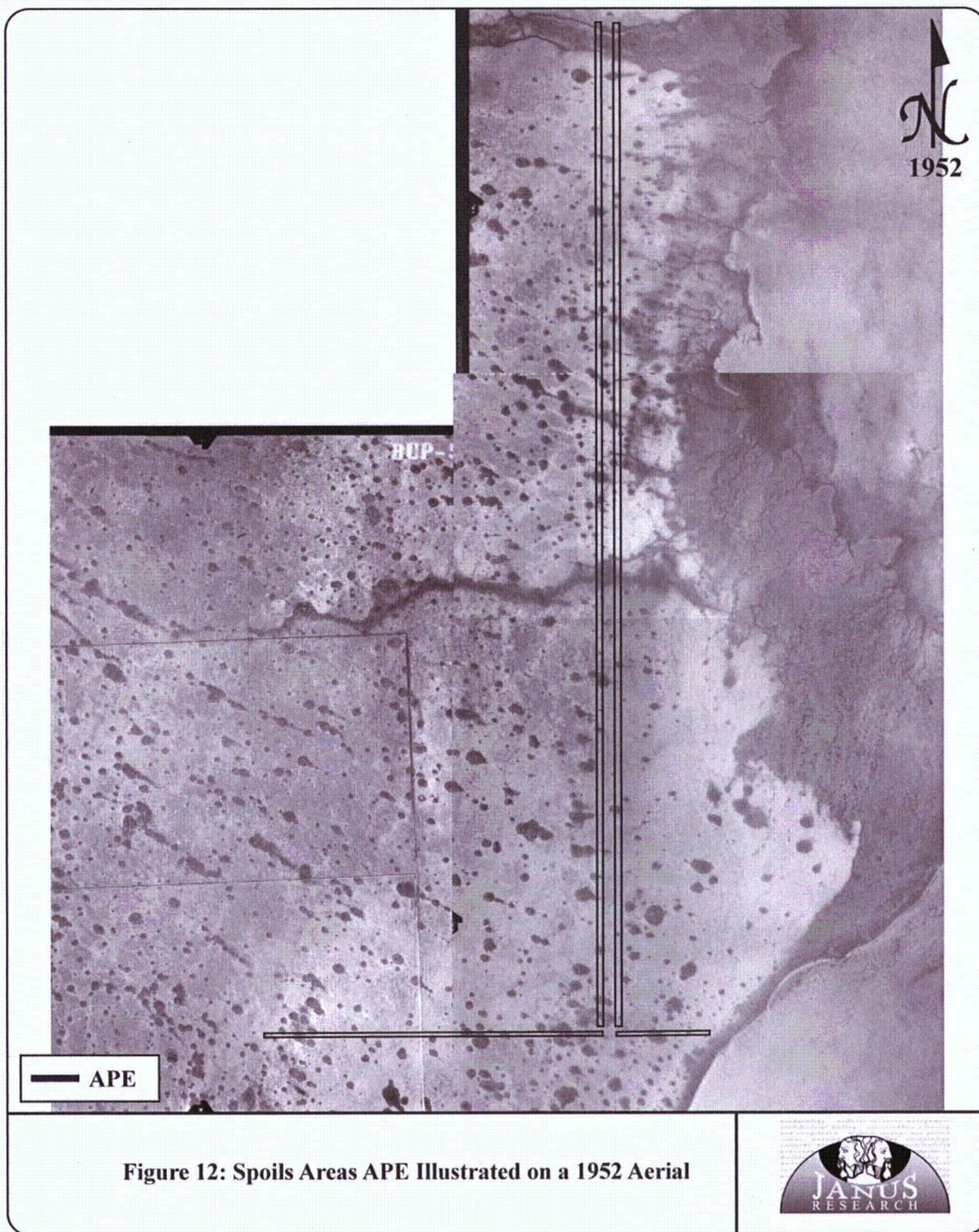
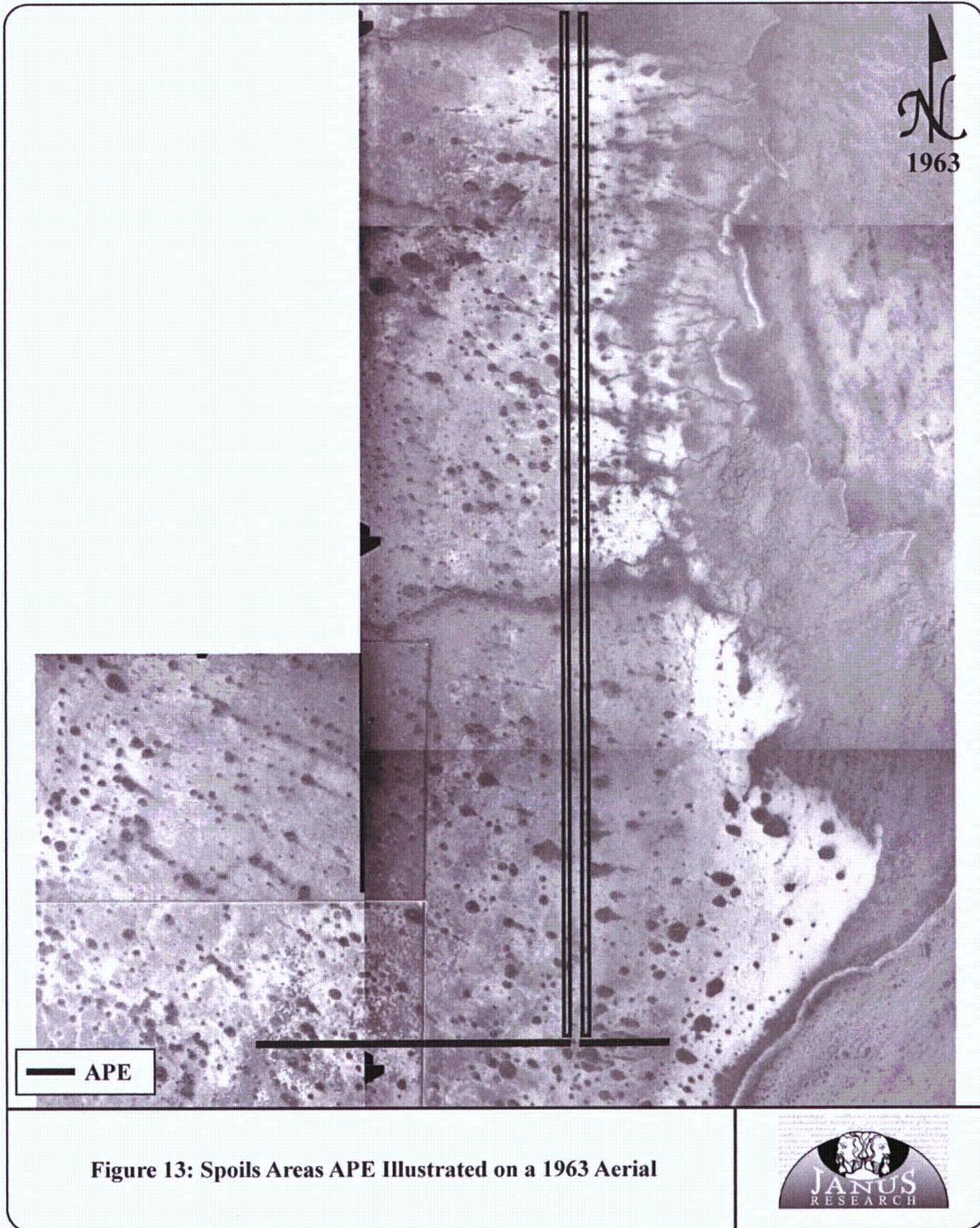


Figure 12: Spoils Areas APE Illustrated on a 1952 Aerial



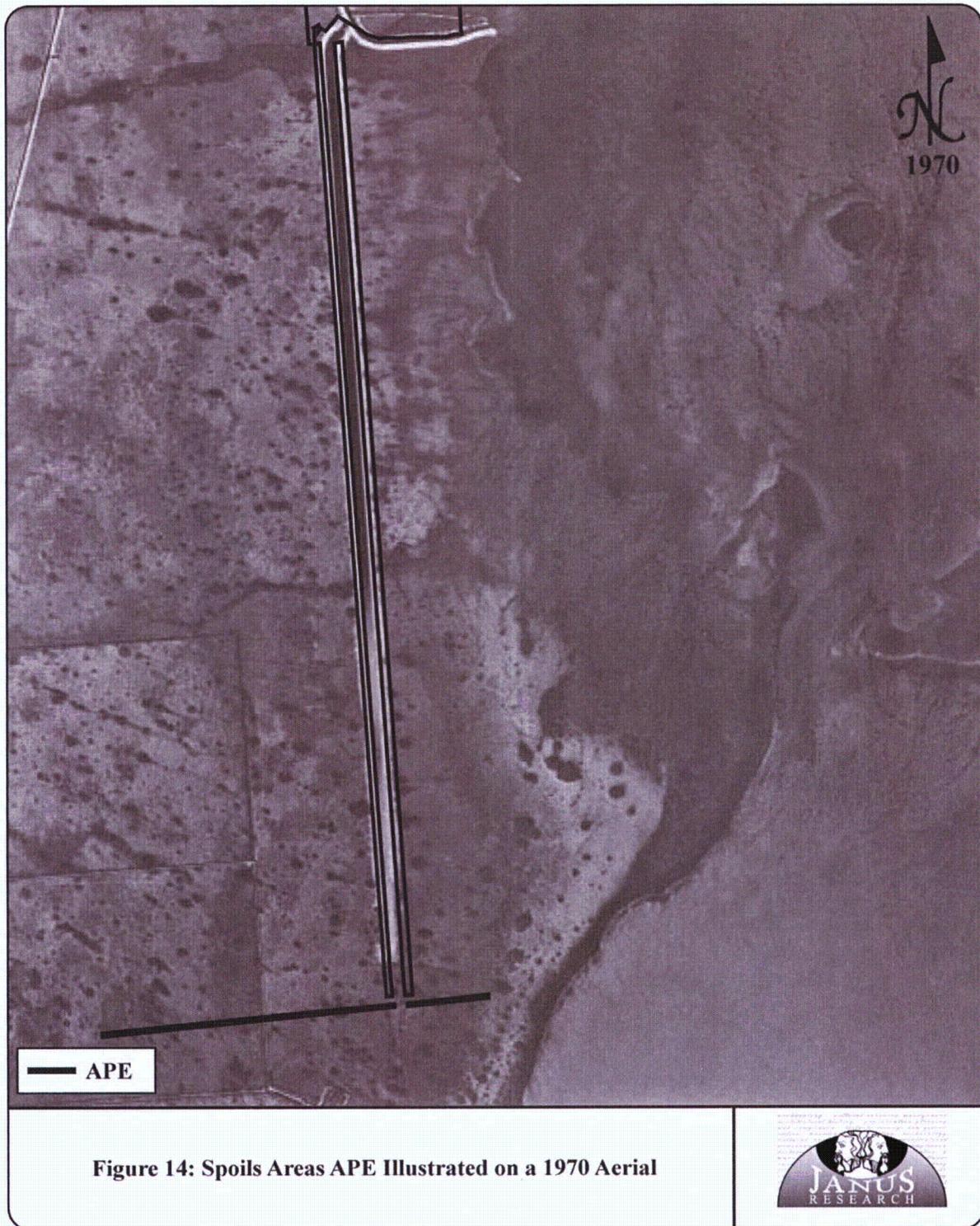


Figure 14: Spoils Areas APE Illustrated on a 1970 Aerial

Attachment 10: Soil Types within the APE

- **Figure 1: Soil Types within the APE (with the Exception of the FPL-Owned Fill Source and Spoils Areas)**
- **Figure 2: Soil Types within the Spoils Areas APE**
- **Figure 3: Soil Types within the FPL-Owned Fill Source APE**



Figure 1: Soil Types within the APE
(with the Exception of FPL-Owned Fill Source and Spoils Areas)





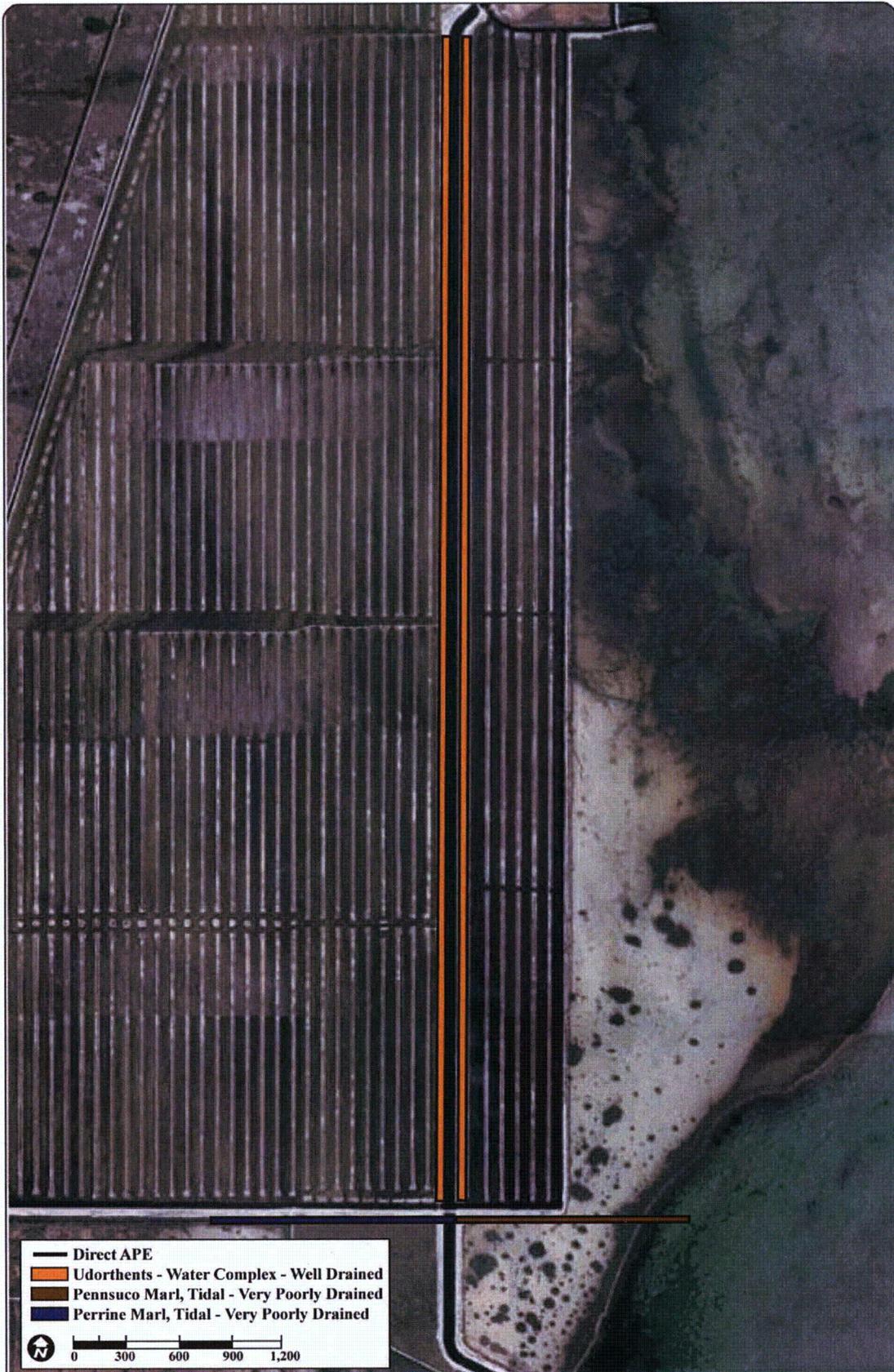


Figure 3: Soil Types within the Spoils Areas APE



Attachment 11: Field Maps Illustrating the Locations of Shovel Tests

- **Figure 1: Locations of Shovel Tests within the Site**
- **Figure 2: Locations of Shovel Tests within the Radial Collector Wells Corridor**
- **Figure 3: Locations of Shovel Tests within the FPL Reclaimed Water Treatment Facility**
- **Figure 4: Locations of Shovel Tests within the FPL-Owned Fill Source**



Figure 1: Location of Shovel Tests Conducted within the Site





Figure 2: Location of Shovel Tests Conducted within the Radial Collector Wells Corridor





Figure 3: Location of Shovel Tests Conducted within the FPL Water Treatment Facility



Attachment 12: Survey Log

Survey Log Sheet

Survey # (FMSF only) _____

Florida Master Site File
Version 2.0 9/97

Consult *Guide to the Survey Log Sheet* for detailed instructions.

Identification and Bibliographic Information

Survey Project (Name and project phase)

FPL Turkey Point Units 6 & 7 Site and Associated Non-Linear Facilities

Report Title (exactly as on title page)

FPL Turkey Point Units 6 & 7 Site and Associated Non-Linear Facilities Cultural Resource Assessment

Report Author(s) (as on title page— individual or corporate; last names first)

Janus Research

Publication Date (year) 2009 **Total Number of Pages in Report** (Count text, figures, tables, not site forms) 36

Publication Information (If relevant, series and no. in series, publisher, and city. For article or chapter, cite page numbers. Use the style of

American Antiquity; see *Guide to the Survey Log Sheet*.)

Janus Research, 1300 N. Westshore Blvd, Suite 100, Tampa FL 33607

Supervisor(s) of Fieldwork (whether or not the same as author[s]; last name first) Hoffman, Kathleen S.

Affiliation of Fieldworkers (organization, city) Janus Research, Tampa

Key Words/Phrases (Don't use the county, or common words like *archaeology*, *structure*, *survey*, *architecture*. Put the most important first.

Limit each word or phrase to 25 characters.)

Turkey Point, Power Plant Expansion, Reclaimed Water, Water Treatment, Collector Wells, Fill Source, Biscayne Bay

Survey Sponsors (corporation, government unit, or person who is directly paying for fieldwork)

Name Florida Power & Light

Address/Phone -

Recorder of Log Sheet Janus Research **Date Log Sheet Completed** 5/6/09

Is this survey or project a continuation of a previous project? No Yes: Previous survey #(s) [FMSF only]

Mapping

Counties (List each one in which field survey was done - do not abbreviate; use supplement sheet if necessary)

Miami-Dade

USGS 1:24,000 Map(s) : Map Name/Date of Latest Revision (use supplement sheet if necessary):

Arsenicker Keys/1988

Description of Survey Area

Dates for Fieldwork: Start 12/11/08 End 4/24/09 **Total Area Surveyed** (fill in one) - hectares 1,389.11 acres

Number of Distinct Tracts or Areas Surveyed 4

If Corridor (fill in one for each): **Width** - meters - feet **Length** - kilometers - miles

Survey Log Sheet of the Florida Master Site File

Research and Field Methods

Types of Survey (check all that apply): archaeological architectural historical/archival underwater other: _____

Preliminary Methods (✓ Check as many as apply to the project as a whole. If needed write others at bottom).

- | | | | |
|---|---|--|--|
| <input type="checkbox"/> Florida Archives (Gray Building) | <input type="checkbox"/> library research- <i>local public</i> | <input type="checkbox"/> local property or tax records | <input type="checkbox"/> windshield |
| <input type="checkbox"/> Florida Photo Archives (Gray Building) | <input type="checkbox"/> library-special collection - <i>nonlocal</i> | <input type="checkbox"/> newspaper files | <input checked="" type="checkbox"/> aerial photography |
| <input checked="" type="checkbox"/> FMSF site property search | <input checked="" type="checkbox"/> Public Lands Survey (maps at DEP) | <input checked="" type="checkbox"/> literature search | |
| <input checked="" type="checkbox"/> FMSF survey search | <input checked="" type="checkbox"/> local informant(s) | <input type="checkbox"/> Sanborn Insurance maps | |
| <input checked="" type="checkbox"/> other (describe) <u>Janus Library</u> | | | |

Archaeological Methods (Describe the proportion of properties at which method was used by **writing in** the corresponding letter. Blanks are interpreted as "None.")

F(-ew: 0-20%), S(-ome: 20-50%); M(-ost: 50-90%); or A(-ll, Nearly all: 90-100%). If needed write others at bottom.

Check here if **NO** archaeological methods were used.

- | | | |
|--|--|---------------------------------------|
| ___ surface collection, controlled | ___ other screen shovel test (size: ___) | ___ block excavation (at least 2x2 M) |
| ___ surface collection, <u>un</u> controlled | ___ water screen (finest size: ___) | ___ soil resistivity |
| <u>F</u> shovel test-1/4"screen | ___ posthole tests | ___ magnetometer |
| ___ shovel test-1/8" screen | ___ auger (size: ___) | ___ side scan sonar |
| ___ shovel test 1/16"screen | ___ coring | ___ unknown |
| ___ shovel test-unscreened | ___ test excavation (at least 1x2 M) | |

M other (describe): Pedestrian survey of Site and associated non-linear facilities where possible

Historical/Architectural Methods (Describe the proportion of properties at which method was used by **writing in** the corresponding letter. Blanks are interpreted as "None.")

F(-ew: 0-20%), S(-ome: 20-50%); M(-ost: 50-90%); or A(-ll, Nearly all: 90-100%). If needed write others at bottom.

Check here if **NO** historical/architectural methods were used.

- | | | | |
|----------------------------|------------------------------|------------------------|---------------------------|
| ___ building permits | ___ demolition permits | ___ neighbor interview | <u>M</u> subdivision maps |
| ___ commercial permits | ___ exposed ground inspected | ___ occupant interview | ___ tax records |
| ___ interior documentation | ___ local property records | ___ occupation permits | ___ unknown |

M other (describe): Pedestrian survey of the Site and associated non-linear facilities where possible

Scope/Intensity/Procedures

Excavated 21 shovel tests (approximately 50 cm in diameter). Water and/or fill were encountered in the majority of the shovel tests. No cultural material was recovered from any shovel test

Survey Results (cultural resources recorded)

Site Significance Evaluated? Yes No If Yes, circle NR-eligible/significant site numbers below.

Site Counts: Previously Recorded Sites 0 Newly Recorded Sites 0

Previously Recorded Site #'s with Site File Update Forms (List site #'s without "8." Attach supplementary pages if necessary)

N/A

Newly Recorded Site #'s (Are you sure all are originals and not updates? Identify methods used to check for updates, ie, researched the FMSF records. List site #'s without "8." Attach supplementary pages if necessary.)

N/A

Site Form Used: SmartForm FMSF Paper Form Approved Custom Form: Attach copies of written approval from FMSF Supervisor.

DO NOT USE SITE FILE USE ONLY DO NOT USE

BAR Related

- 872 1A32
 CARL UW

BHP Related

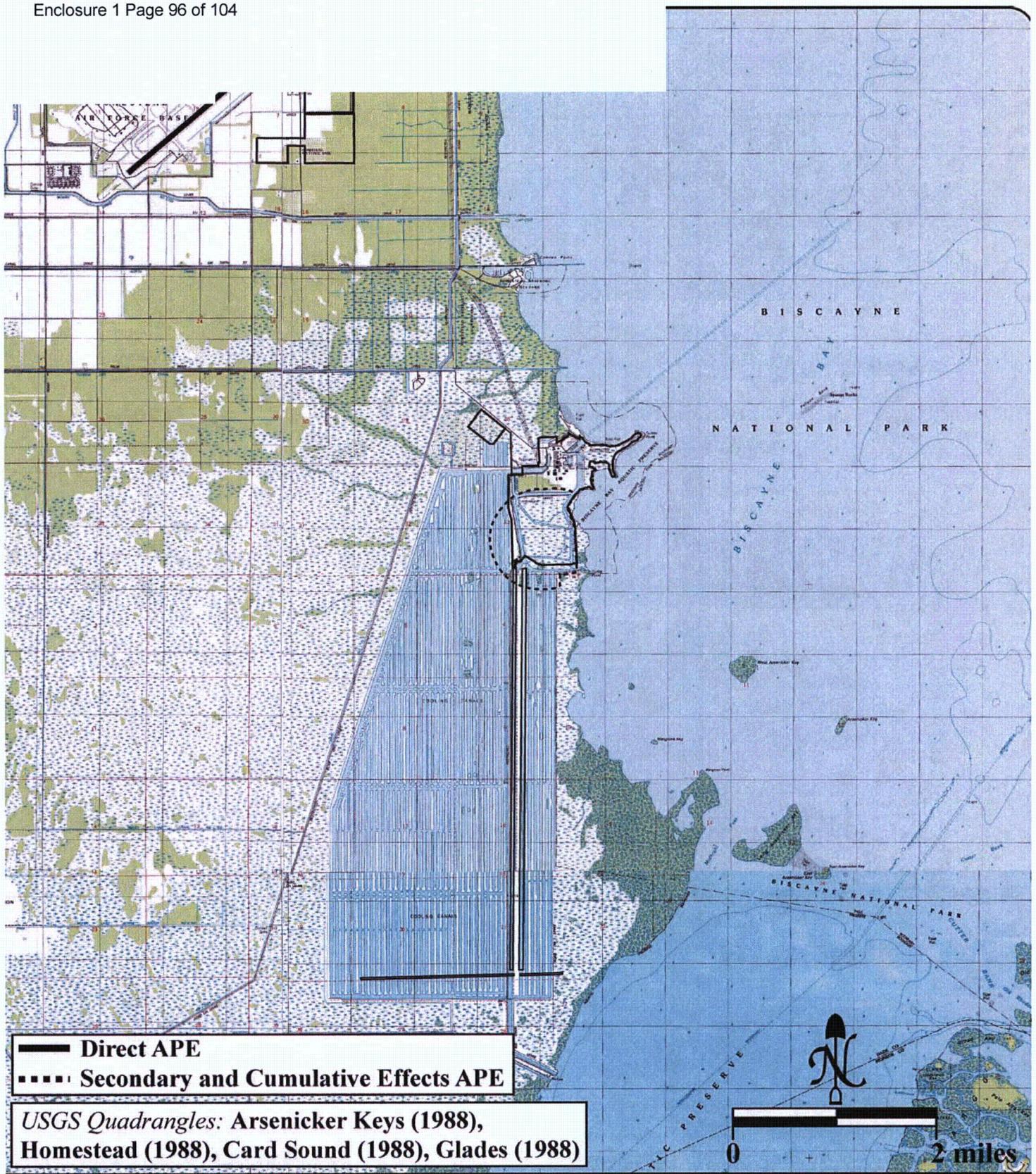
- State Historic Preservation Grant
 Compliance Review: CRAT # _____

ATTACH PLOT OF SURVEY AREA ON PHOTOCOPIES OF USGS 1:24,000 MAP(S)

HR6E06610-97 Florida Master Site File, Division of Historical Resources, Gray Building, 500 South Bronough Street, Tallahassee, Florida 32399-0250

Phone 850-245-6440, Suncom 205-6440, FAX 850-245-6439, Email fmsfile@mail.dos.state.fl.us, Web http://www.dos.state.fl.us/dhr/fmsf/

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**APE for the Site and Associated Non-Linear
Facilities Illustrated on USGS Quadrangle Maps**



Attachment 13: 2009 SHPO Letter for FPL Turkey Point Units 6 & 7 Project

FPL.

FLHR-09-0062

February 20, 2009

Ms. Laura Kammerer
Florida Department of State
Division of Historical Resources
RA Gray Building, 4th floor
500 S. Bronough St.
Tallahassee FL 32399-0250

SUBJECT: Florida Power & Light Company Turkey Point Units 6 & 7 Project,
Miami Dade County, Florida

Dear Ms. Kammerer:

Florida Power & Light Company (FPL) is preparing permit and license applications to the U.S. Nuclear Regulatory Commission (NRC), the Florida Department of Environmental Protection (FDEP) and the United States Army Corps of Engineers (USACE) to allow construction and operation of two new nuclear units and associated project features at our existing Turkey Point property in Miami-Dade County, Florida (the "proposed action").

This project will require federal approval by the NRC and USACE. Therefore, consistent with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Public Law 89-665, as amended), as implemented by 36 CFR 800 (Protection of Historic Properties, effective January 2001), a cultural resource assessment is in progress. Moreover, this project is being conducted in accordance with F.A.C. Electrical Power Plant Siting Act and as prescribed by DEP Form 62-11.211(1), F.A.C. Accordingly, the cultural resource assessment will comply with Chapter 267, Florida Statutes (Florida Historical Resources Act), the minimum field methods, data analysis, and Chapter 1A-46 (Archaeological and Historical Report Standards and Guidelines), F.A.C.

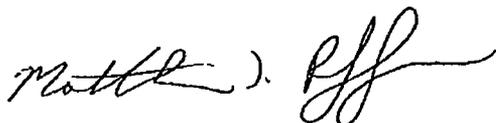
Janus Research is assisting FPL with the cultural resource investigations and will be contacting your office on FPL's behalf to obtain required information as needed. A cultural resource assessment (CRA) survey of the proposed power plant site and facilities associated with the project is in progress. A copy of this report will be submitted with the Site Certification Application. A CRA survey of additional facilities associated with the proposed project (e.g., transmission lines) will be conducted once final routes and locations are selected. Field work in areas where FPL does not control the property may have to wait until the final right of way is secured. Copies of the CRA report for associated facilities will be forwarded to you office when completed and post SCA submittal.

The Turkey Point property is located in Miami-Dade County, Florida, adjacent to Biscayne Bay and Card Sound, about 25 miles south of Miami (Figure 1). The total, non-contiguous property area is approximately 11,000 acres. The developed portion of the property includes a natural gas fueled generating unit; two oil/gas-fired generating units, and two nuclear-powered generating units. This proposed action would further develop approximately 300 acres of the property west and south of these existing units, primarily within an existing cooling canal /industrial wastewater treatment facility. In addition, FPL will construct (1) pipelines to convey dual cooling water supplies (reclaimed and saltwater) to new cooling towers, (2) power transmission lines to connect the new units with the regional electric grid, and (3) a reclaimed water treatment facility to condition the reclaimed water for cooling water uses. In addition, because fill material is necessary for the unit foundations, FPL is proposing to place fill sourced from a commercial mine and/or nearby FPL-owned property approximately 4 miles northwest of the proposed site. These areas are shown in Figures 2 and 3. Figures 2A and 2B include the project features in the vicinity of the proposed plant area. Figure 3 also provides an expanded view of the area showing the proposed transmission corridor.

Please note that an Unanticipated Finds Plan will be in place prior to construction in the unlikely event that any cultural remains are encountered during construction. In the event that human remains, archeological or historical objects are found during construction or maintenance activities, all activity that might disturb the human remains will cease in accordance with the provisions of Chapter 872.05. In addition, if historical or archeological artifacts are discovered, notification will be made to the Florida Department of Environmental Protection Southeast District Office and Bureau of Historical Preservation, Division of Historical Resources Office.

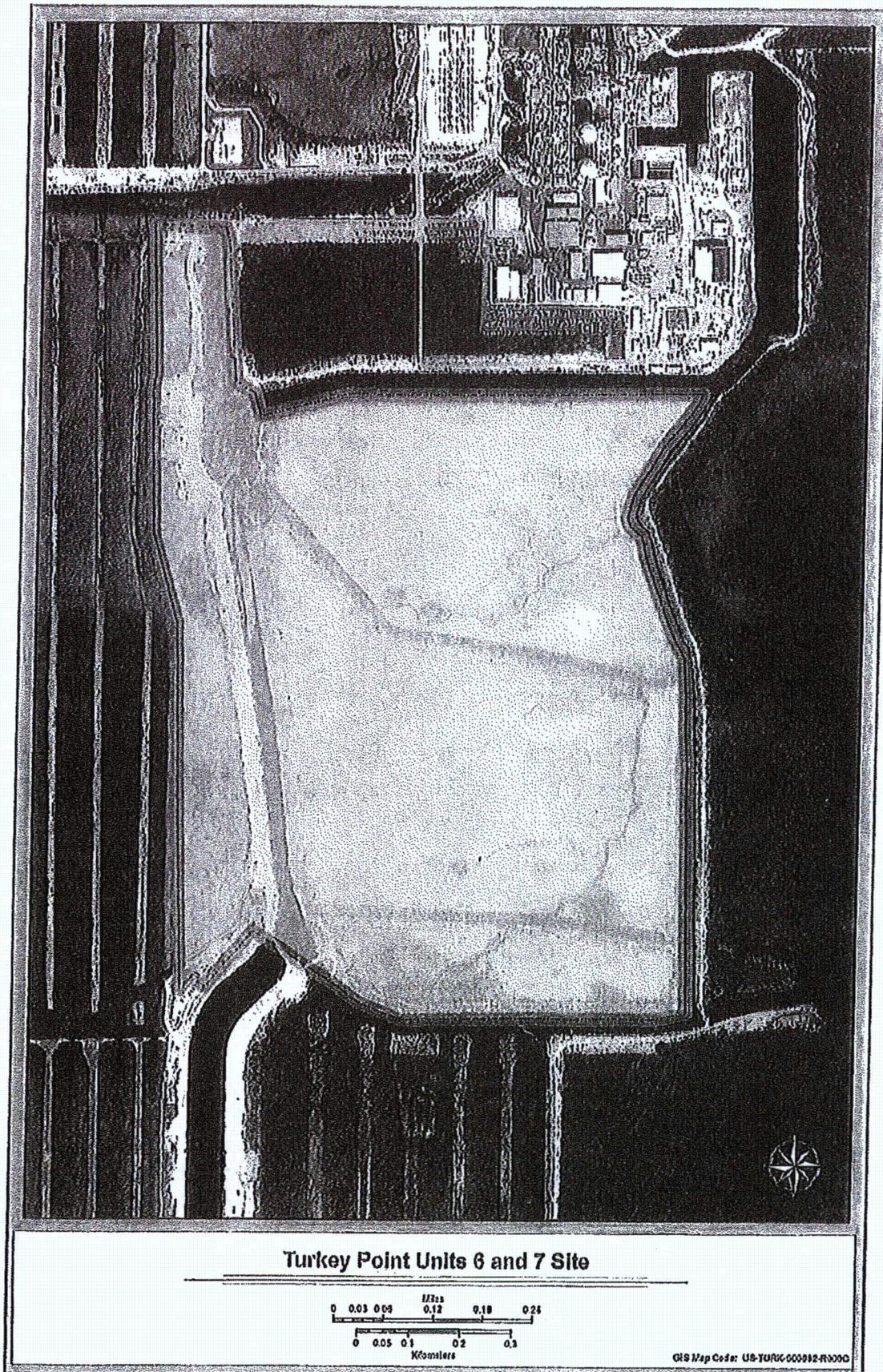
Thank you for your attention to this request; I will follow up with you to confirm receipt and to address any questions or concerns you may have. Should you need to talk to me earlier, please reach me by telephone at 561-691-2808.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew J. Raffenberg". The signature is fluid and cursive, with a large initial "M" and "R".

Matthew J. Raffenberg
Manager, Environmental Licensing

Figure 1



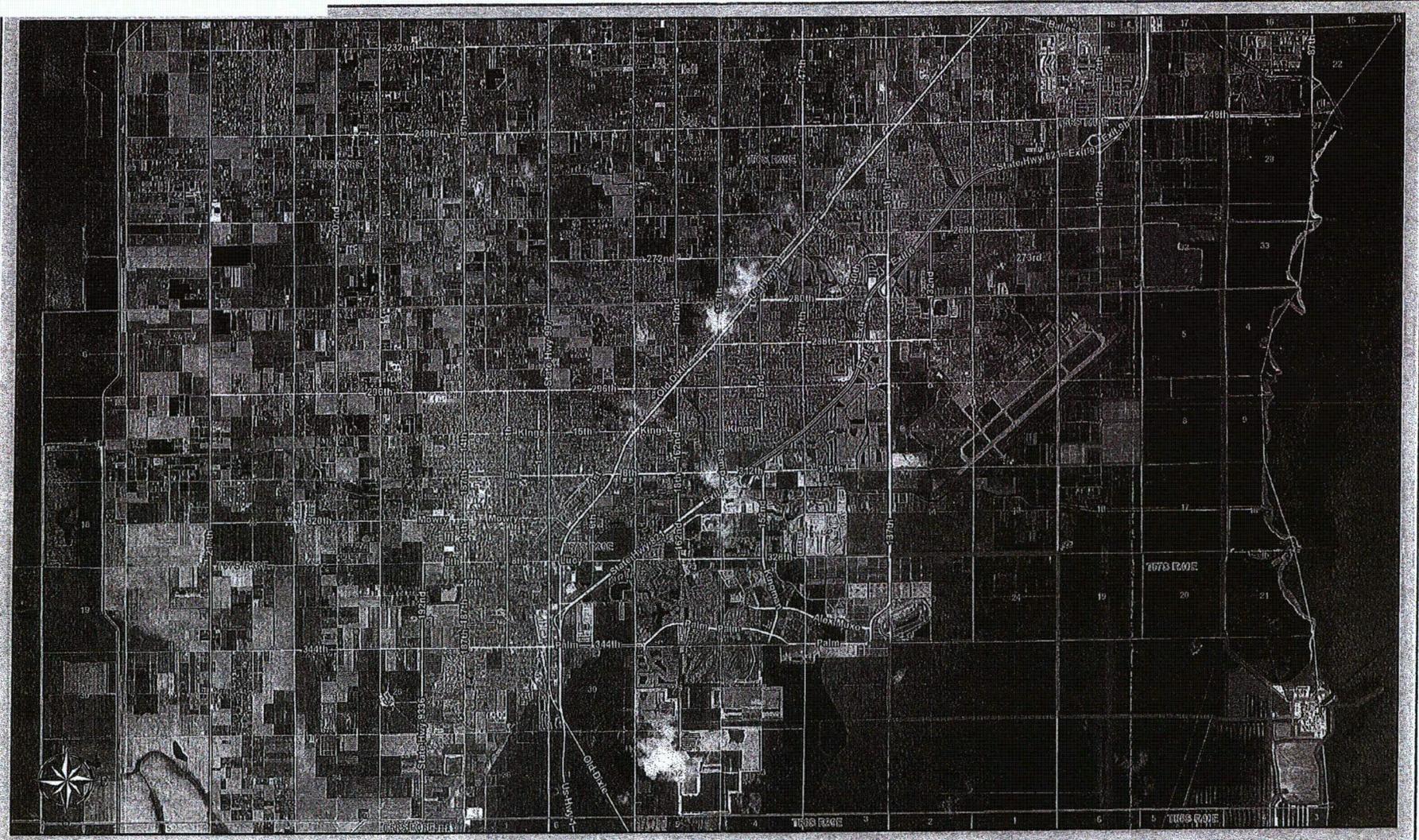
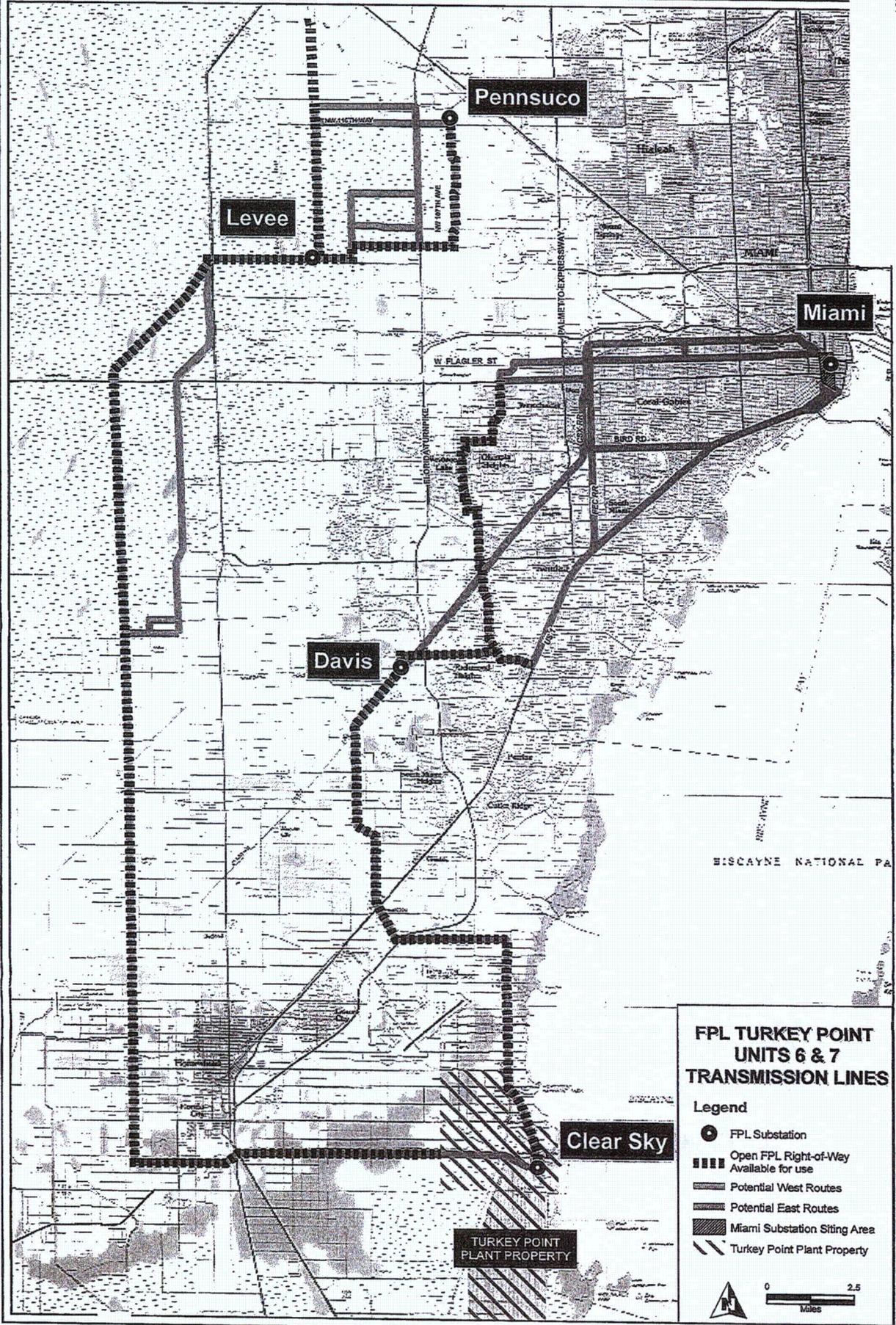


Figure 2A: Turkey Point Units 6 & 7 Potential Project Features (without transmission)



GIS Map Code: US-TURK-000169-F000F

POTENTIAL TRANSMISSION ROUTES BEING STUDIED



**FPL TURKEY POINT
 UNITS 6 & 7
 TRANSMISSION LINES**

Legend

- FPL Substation
- ▬▬▬ Open FPL Right-of-Way Available for use
- ▬▬▬ Potential West Routes
- ▬▬▬ Potential East Routes
- ▨▨▨ Miami Substation Siting Area
- ▨▨▨ Turkey Point Plant Property

0 2.5
 Miles