

# CCR LANDFILL ANNUAL INSPECTION BYPRODUCT STORAGE AREA DECEMBER 2021

*Lakeland Electric  
C.D. McIntosh Power Plant  
3030 East Lake Parker Drive  
Lakeland, Florida*

Submitted to:

**City of Lakeland - Department of Electric Utilities**

501 East Lemon Street  
Lakeland, FL 33801 USA

Submitted by:

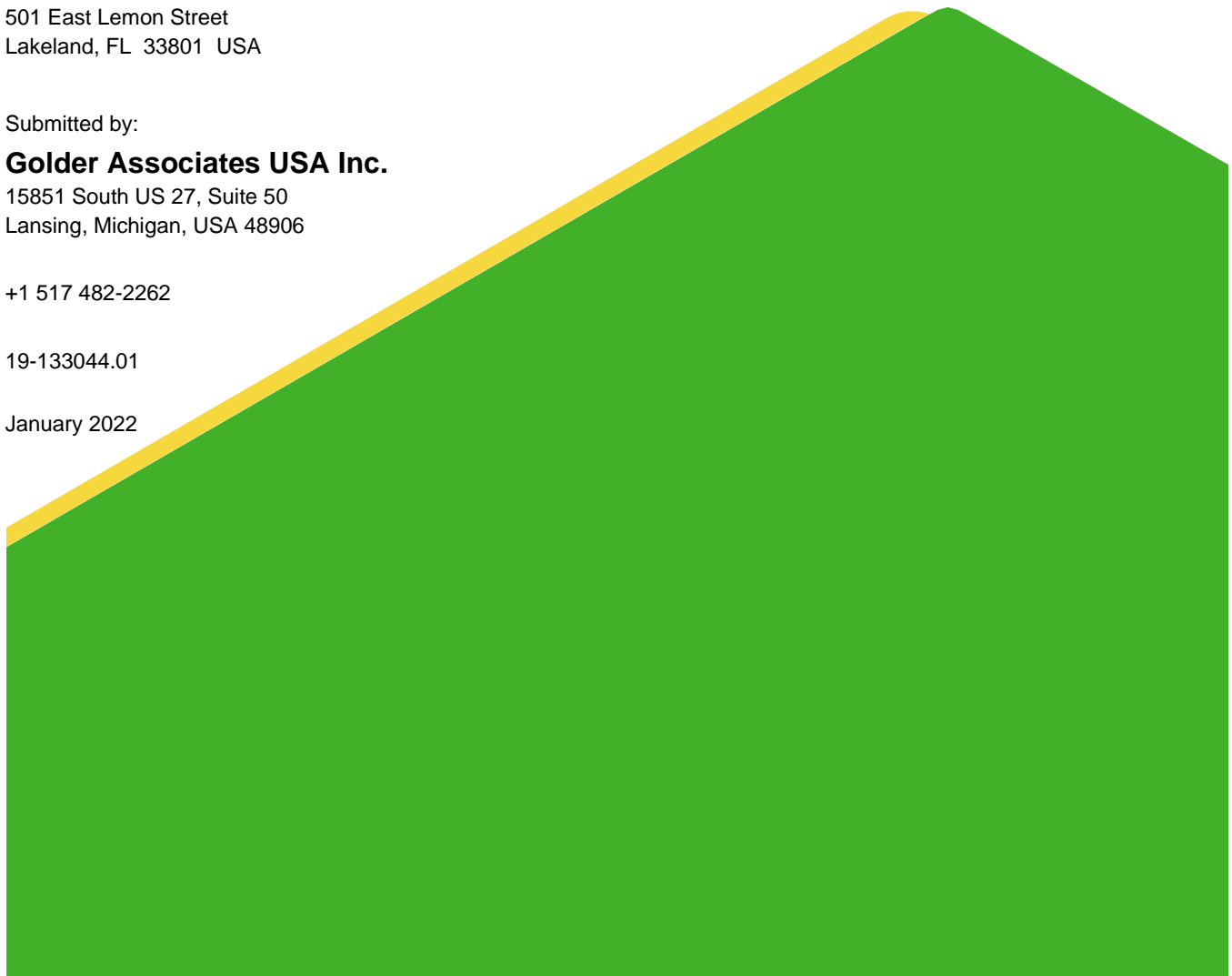
**Golder Associates USA Inc.**

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19-133044.01

January 2022



# Distribution List

Lakeland Electric

## INTRODUCTION

Golder Associates USA Inc. (Golder) conducted the annual coal combustion residual (CCR) landfill inspection of the Byproduct Storage Area (BSA) at Lakeland Electric's C.D. McIntosh Power Plant (MPP) on December 22, 2021. This report is intended to comply with the requirements of 40 CFR Section (§) 257.84(b).

The MPP, located in Lakeland, Florida (See Figure 1) is owned and operated by Lakeland Electric (City of Lakeland, Department of Electric Utilities). The main entrance of the facility is located at 3030 East Lake Parker Drive, Lakeland, Florida. The BSA is located in the southeast portion of the property and received CCRs generated by Unit 3, which was the only coal-fired electrical generating unit at MPP (see Figure 2). Unit 3 ceased generation in 2021 and is scheduled for demolition in 2022.

## REVIEW OF AVAILABLE INFORMATION - §257.84(b)(1)(i)

Golder's inspection team reviewed available information regarding the status and condition of the BSA. The documents reviewed included:

- Operations Manual, Combustion By-Product Storage Facility, Shaw Stone & Webster, Inc., January 3, 2006;
- Design Report – Vertical Expansion, Existing Combustion By-Products Storage Facility, Black & Veatch, February 20, 2004;
- C.D. McIntosh, Jr Power Plant Units 3 and 5 Conditions of Certification, PA 74-06R, Florida Department of Environmental Protection, March 6, 2013;
- Run-On and Run-Off Control System Plan Report, Byproduct Storage Area, Geosyntec Consultants, October 2021; and
- Operating records, including weekly inspection results.

## INSPECTION SUMMARY - §257.84(b)(1)(ii)

Golder conducted the visual inspection of the BSA on December 22, 2021, by traversing the BSA on foot in order to observe cover conditions, exterior slope conditions, the presence of any erosional issues, vegetative conditions, placement of CCRs, stormwater management features, the presence of potential slope stability issues, and the presence of other signs of distress or malfunction.

## CHANGES IN GEOMETRY - §257.84(b)(2)(i)

Changes in geometry of the BSA were evaluated by comparing recent aerial photographs, past inspection results, past topography, and the December 10, 2020 visual inspection. The primary changes in geometry are due to material regrading and temporary capping of the BSA. Soil material stockpiles on the top of the northern portion were reclaimed and placed over CCRs in the southern portion of the BSA.

## APPROXIMATE CCR VOLUME - §257.84(b)(2)(ii)

The volume of materials in the BSA at the time of the inspection is estimated to be approximately 2.91 million cubic yards based on past topographic survey information, updated disposal records, previous capacity analyses, and other information provided by Lakeland Electric.

## STRUCTURAL WEAKNESS/DISRUPTING CONDITIONS - §257.84(b)(2)(iii)

No indications of actual or potential structural weakness were noted during the December 22, 2021 inspection or during the review of available information.

## CHANGES AFFECTING STABILITY OR OPERATIONS - §257.84(b)(2)(iv)

Based on the December 22, 2021 inspection and review of the available information, no changes from the previous inspection (conducted on December 10, 2020) that may affect the operations or stability of the BSA were observed.

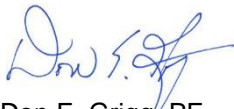
## CONCLUSION

Based on the review of the available information noted above, the December 22, 2021 field observations, and subsequent discussions with Lakeland Electric, the BSA's design, construction, operation, and maintenance appear to be consistent with recognized and generally accepted good engineering standards. If you have any questions or comments about this report, please do not hesitate to contact us.

### Golder Associates USA Inc.



Samuel F. Stafford, PE  
*Senior Engineer*



Don E. Grigg, PE  
*Senior Consultant and Associate*

SFS/DEG/ams

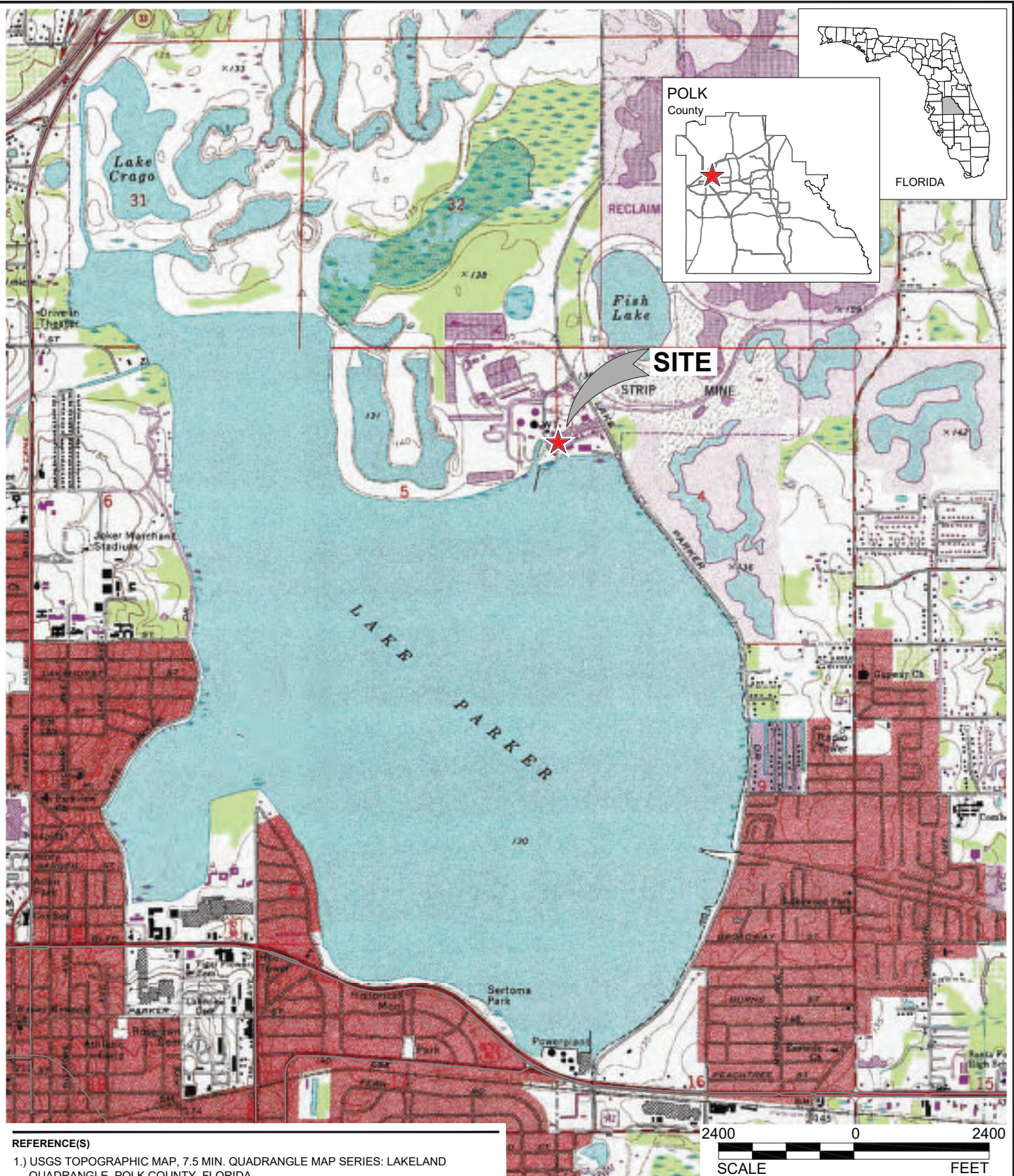
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[https://golderassociates.sharepoint.com/sites/117718/Project Files/6 Deliverables/2021 Annual Inspection/2021 MPP BSA Inspection Report.docx](https://golderassociates.sharepoint.com/sites/117718/Project%20Files/6%20Deliverables/2021%20Annual%20Inspection/2021%20MPP%20BSA%20Inspection%20Report.docx)

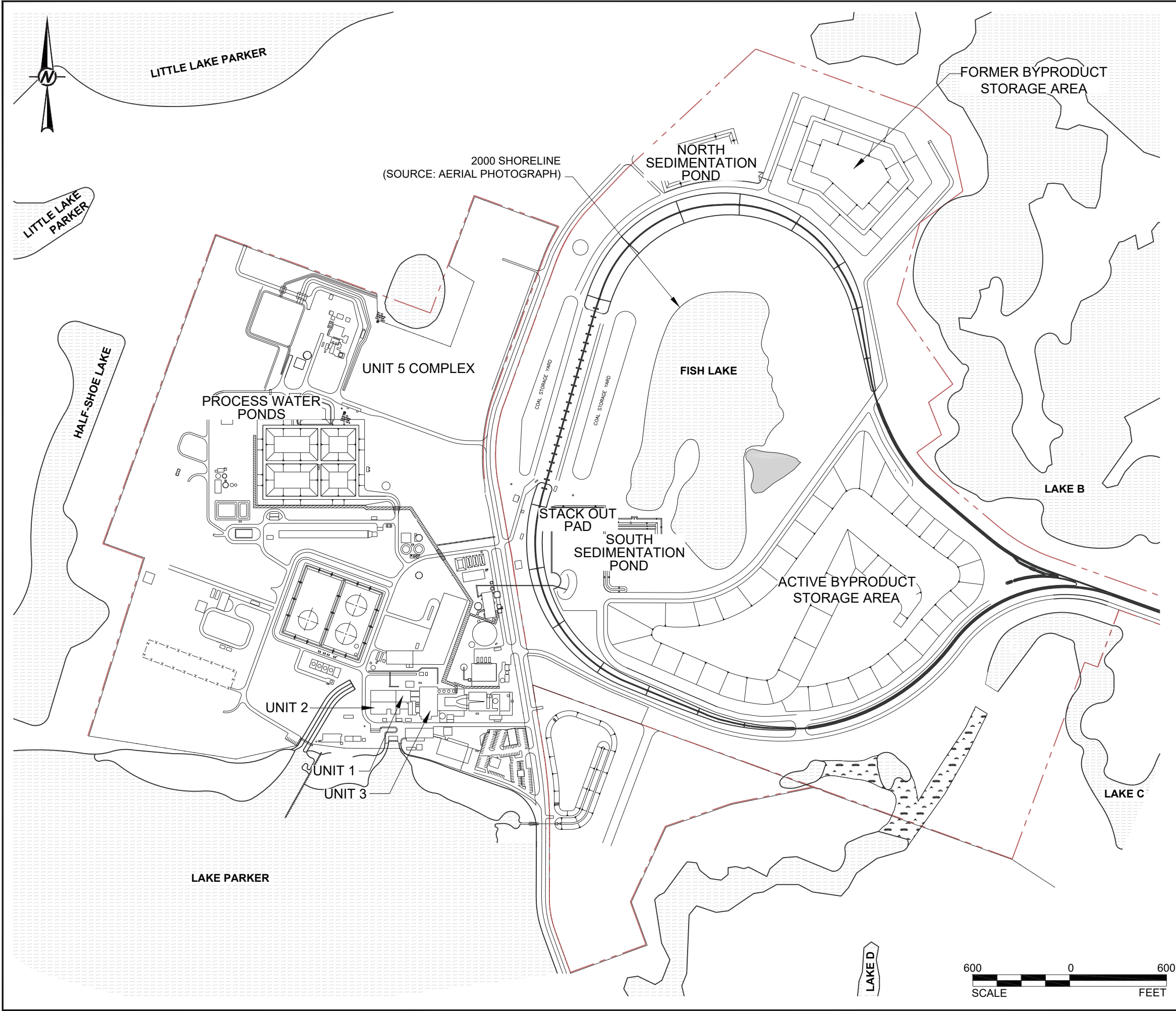
## FIGURES



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**LEGEND**

	SURFACE WATER
	PROPERTY BOUNDARY
	FENCE
	WET AREA

**REFERENCE(S)**

1. BASE MAP MODIFIED FROM SITE PLAN PROVIDED BY LAKELAND ELECTRIC.

CLIENT  
**LAKELAND ELECTRIC**

 <b>GOLDER</b> MEMBER OF WSP	CLIENT	2021-01-06
	DESIGNED	SFS
	PREPARED	BCL
	REVIEWED	SFS
	APPROVED	DEG

PROJECT  
2021 ANNUAL INSPECTION  
C.D. McINTOSH POWER PLANT  
LAKELAND, POLK COUNTY, FLORIDA  
TITLE  
**McINTOSH POWER PLANT SITE PLAN**

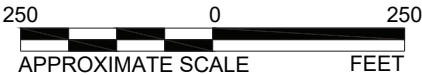
PROJECT NO. 19-133044	Control No. 19133044-B002	REV. .	FIGURE <b>2</b>
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REFERENCE(S)  
1. AERIAL IMAGERY SOURCE: GOOGLE EARTH® PRO 2010, IMAGE DATED 12.11.18. IMAGE GEOREFERENCED BY GOLDER AND INTENDED FOR INDICATIVE PURPOSES ONLY.



CLIENT  
LAKELAND ELECTRIC

CONSULTANT

 **GOLDER**  
MEMBER OF WSP

PROJECT  
2021 ANNUAL INSPECTION  
C.D. MCINTOSH POWER PLANT  
LAKELAND, POLK COUNTY, FLORIDA

TITLE  
**BYPRODUCT STORAGE AREA GRID LOCATION MAP**

YYYY-MM-DD	2021-01-06
DESIGNED	SFS
PREPARED	BCL
REVIEWED	SFS
APPROVED	DEG

PROJECT NO.  
19-133044

Control No.  
19133044-B003

REV.  
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FIGURE  
**3**

1 in = 1000 feet IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B