APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 15-December-2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: RD-ST; FDEP Division of Recreation and Parks/Colt Creek State Park entrance road and improvements; SAJ-2008-4636 (NW-JPF)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State:FL County/parish/borough: Polk City:
Center coordinates of site (lat/long in degree decimal format): **28.281449/ -82.039683**
Universal Transverse Mercator: 17
Name of nearest waterbody: Colt Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Withlacoochee. Florida
Name of watershed or Hydrologic Unit Code (HUC): 3100208

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: 15-December-2008
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☒ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or 0.04 acres.
   Wetlands: 0.22 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**
   Identify TNW: .

   Summarize rationale supporting determination: .

2. **Wetland adjacent to TNW**
   Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

   (i) **General Area Conditions:**
   Watershed size: 2100 **square miles**
   Drainage area: **square miles**
   Average annual rainfall: 55 inches
   Average annual snowfall: inches

   (ii) **Physical Characteristics:**
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☒ Tributary flows through **3** tributaries before entering TNW.

   Project waters are **1 (or less)** river miles from TNW.
   Project waters are **1 (or less)** river miles from RPW.
   Project waters are **1 (or less)** aerial (straight) miles from TNW.
   Project waters are **1 (or less)** aerial (straight) miles from RPW.
   Project waters cross or serve as state boundaries. Explain: .

   Identify flow route to TNW[5]: water flows N to Withlacoochee River
   Tributary stream order, if known:.

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[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is:
- ☒ Natural
- ☐ Artificial (man-made). Explain:.
- ☒ Manipulated (man-altered). Explain: ditching.

Tributary properties with respect to top of bank (estimate):
Average width: 4
Average depth: 2
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):
- ☐ Silts
- ☐ Sands
- ☐ Concrete
- ☐ Cobbles
- ☐ Gravel
- ☐ Muck
- ☐ Bedrock
- ☐ Vegetation. Type/% cover:
- ☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain:.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope):

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime:.
Other information on duration and volume:.

Surface flow is: **Discrete.** Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
- ☐ Dye (or other) test performed: .

Tributary has (check all that apply):
- ☒ Bed and banks
- ☐ OHWM[6] (check all indicators that apply):
  - ☐ clear, natural line impressed on the bank
  - ☐ changes in the character of soil
  - ☐ shelving
  - ☐ vegetation matted down, bent, or absent
  - ☐ leaf litter disturbed or washed away
  - ☐ sediment deposition
  - ☐ water staining
  - ☐ other (list):
  - ☐ the presence of litter and debris
  - ☐ destruction of terrestrial vegetation
  - ☐ the presence of wrack line
  - ☐ sediment sorting
  - ☐ scour
  - ☐ multiple observed or predicted flow events
  - ☐ abrupt change in plant community
- ☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
- ☐ High Tide Line indicated by:
  - ☐ oil or scum line along shore objects
  - ☐ fine shell or debris deposits (foreshore)
  - ☐ physical markings/characteristics
  - ☐ tidal gauges
  - ☐ other (list):
- ☐ Mean High Water Mark indicated by:
  - ☐ survey to available datum;
  - ☐ physical markings;
  - ☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: relatively clear, depends on rainfall.
Identify specific pollutants, if known:.

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[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**
- ☒ Riparian corridor. Characteristics (type, average width): .
- ☒ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings:.
  - ☐ Fish/spawn areas. Explain findings:.
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings:.

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size: 0.22 ac
Wetland type. Explain:.cypress, hardwoods, and herbaceous
Wetland quality. Explain:.some hydrologic impacts
Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:
Flow is: **Perennial flow**. Explain: swales carry storm event flow .

Surface flow is: **Discrete**
Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:
- ☐ Directly abutting
- ☒ Not directly abutting
  - ☒ Discrete wetland hydrologic connection. Explain: wetlands have some hydrologic connection to RPWs
  - ☒ Ecological connection. Explain:.areas between wetlands and RPWs support movement of biological and chemical characteristics
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW
Project wetlands are **1 (or less)** river miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from TNW.
Flow is from: **Wetland to navigable waters.**
Estimate approximate location of wetland as within the **10 - 20-year** floodplain.

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:
Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):
- ☒ Riparian buffer. Characteristics (type, average width): .
- ☒ Vegetation type/percent cover. Explain:as described in environmental narrative
- ☒ Habitat for:
  - ☒ Federally Listed species. Explain findings:.wood stork
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: **Pick List**
Approximately _0.22 acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

As attached

Summarize overall biological, chemical and physical functions being performed: Wetlands may provide some foraging habitat for birds and mammals, may provide some WQ filtration of upland runoff, connect hydrologically to Withlacoochee River.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: Ditches transport runoff from uplands, filter runoff, provide additional habitat.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: Wetlands may provide some foraging habitat for birds and mammals, may provide some WQ filtration of upland runoff, connect hydrologically to Withlacoochee River

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: Wetlands may provide some foraging habitat for birds and mammals, may provide some WQ filtration of upland runoff, connect hydrologically to Withlacoochee River

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Perennial flow based on available data
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☒ Other non-wetland waters: **0.04** acres.
Identify type(s) of waters: **ditches**.

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: **n/a** acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☒ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: **0.22** acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: **0.3** acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. **ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]**
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

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[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters: .
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: List type of aquatic resource:
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: As submitted with application.
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name:.
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation:.
- ☐ National wetlands inventory map(s). Cite name: .
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): Google Earth
  - or ☒ Other (Name & Date):provided in application.
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☐ Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:.

This form is for wetlands 1, 2, 4, 5, 11, and 12, and surface waters 1, 2, and 3

TABLE ONE:

PROJECT WETLAND AND OTHER SURFACE WATER SUMMARY

WL & SW ID	WL & SW TYPE	WL & SW SIZE	WL & SW NOT IMPACTED	TEMPORARY WL & SW IMPACTS			PERMANENT WL & SW IMPACTS			MITIGATION AREA ID
				WL & SW TYPE	IMPACT SIZE	IMPACT TYPE	WL & SW TYPE	IMPACT SIZE	IMPACT TYPE	
WL #1	621						621	0.07	F	
WL #2	617						617	0.01	F	
WL #4	621						621	0.03	F	
WL #5	640						640	0.03	F	
WL #11	643						643	0.03	F	
WL #12	643						643	0.05	F	
SW #1	-	-					-	0.02	F	
SW #2	-	-					-	0.01	F	
SW #3	-	-					-	0.01	F	
PROJECT TOTALS:		0	0		0			0.26		

Comments:

Note:
WL=Wetland SW=Other Surface Water ID=Identification number, letter, etc.
Wetland Type: from an established wetland classification system
Impact Type: D=dredge; F=fill; H=change hydrology; S=shading; C=clearing; O=other
Multiple entries per cell not allowed, except in the "Mitigation ID" column. If more than one impact is proposed in a given area, indicate the final impact.

Kimley-Horn
and Associates, Inc.

ENVIRONMENTAL NARRATIVE
COLT CREEK STATE PARK
POLK COUNTY, FL
PHASE I
November 2008

Suite 300
601 21st Street
Vero Beach, Florida
32960-0861

INTRODUCTION

The following technical memorandum summarizes the results of field reconnaissance conducted at the above referenced site to identify the natural resources present on the property in relation to the proposed Phase I park improvement project. In addition, natural resource information was obtained from the parks Unit Management Plan (UMP) for Colt Creek State Park, September 2007.

Colt Creek State Park was acquired on May 31, 2006 as one of the newest additions to the Florida Park Service. This 5,067-acre property is located in Northwest Polk County approximately 16 miles north of Lakeland and 13 miles southeast of Dade City (see **Figure 1, Location Map**). The entrance is on the east side of State Road 471 approximately four miles north of U.S. Highway 98. The park lies within the 560,000 acre Green Swamp Region and is surrounded by 279,000 acres of publicly owned conservation land within the Green Swamp Area of Critical State Concern.

Phase I of the park project consists of the following proposed improvements as described within the UMP.

1. **Entrance Station and Park Road.** Beginning at the new entrance gate, a paved network of roads is planned that will deliver visitors to each of the new use areas. The proposed roads will utilize existing service roads and open pasture, to the extent possible. A ranger station with office space is proposed approximately 1000 feet inside the entrance gate. From this point, the park road splits were most visitors will be routed to the north around the lakes before heading south to a proposed parking and picnic area south of the large lake.
2. **Large Lake Trail.** A paved trail that will circumnavigate the larger lake and link with the other recommended use areas within the park
3. **Large Lake Picnic Area.** A lakeside day-use area for the southeastern shoreline of the largest man-made lake. These areas are appealing for picnicking, fishing, and canoe/kayaking. Two medium-sized screened picnic shelters, scattered picnic tables, a fishing platform, restroom and parking area are proposed.

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SITE CHARACTERISTICS

Preliminary assessments of the projects vegetative communities, wildlife, wetlands and listed species habitat were conducted as part of this report. Formal listed species surveys were not included as part of the scope of work for this project. Wetland jurisdictional limits were delineated in accordance with the methodologies described in the US Army Corps of engineers (USACE) 1987 Wetland Delineation Manual and 62-340 F.A.C. (State Unified Wetland Delineation Methodology). These methods take into account prevalence of wetland vegetation, hydric soil indicators, and wetland hydrology. Surface waters include both natural and manmade bodies of water, such as streams, lakes, ponds, canals, and ditches. Seasonal high water within the wetlands was determined to be between 86 and 87 feet NGVD based on surveyed topographic information. Refer to **Exhibits A-1 through A-16** for construction plans, topographic and wetland survey information. The overall map, **Exhibit B**, shows the overall project in relation to the wetland areas within the project area.

A portion of the 7.5 minute *Lake Arbuckle SW, FL* quadrangle showing the location of the subject site and the overall topographic signature is attached as **Figure 2**. A **Soils Map** has been included as **Figure 3** that depicts the extensive hydric soils located on the property.

NATURAL COMMUNITIES

Pedestrian transects within the areas of potential impact were conducted to identify land cover type using the Florida Land Use, Cover and Forms Classification System (FLUCFCS, FDOT, 1999). According to the UMP, the park contains seven distinct natural communities in addition to ruderal and developed areas. A **FLUCFCS Map** was prepared as part of this assessment and is included as **Figure 4**. A description of the land cover, included below, characterizes dominant vegetation observed along random pedestrian transects, and does not represent an all-inclusive vegetative inventory.

212 – Unimproved pastures A majority of the ruderal area is unimproved pasture located throughout the park in large open areas. Groundcover consists of common pasture grasses such as bahia grass (*Paspalum notatum*), foxtail (*Setaria* sp.), crabgrass with dog fennel and sicklepod found in patches throughout. Torpedograss, cogongrass, tropical soda apple (*Solanum viarum*), and Caesarweed are all abundant in the improved pastures.

321 – Palmetto Prairie Saw palmetto (*Serenoa repens*) is the most dominant vegetation in this area which appears to have experienced past clearing of the pine overstory.

411- Pine flatwoods. Though reportedly the most widespread of the upland natural communities in the park, only a small portion occurs within the project boundary. These higher quality flatwoods are located largely in the northern half of the park. Herbaceous groundcover includes wiregrass (*Aristida beyrichiana*),

lopsided Indiangrass (*Sorghastrum secundum*), broomsedge (*Andropogon virginicus*), rattlesnake master (*Eryngium yuccifolium*), showy milkwort (*Polygala grandiflora*), St. John's-wort (*Hypericum spp*), gopher apple (*Licania michauxii*) and black senna (*Seymeria cassiodes*). Shrub species include saw palmetto (*Serenoa repens*), dwarf live oak (*Quercus minima*), running oak (*Q. elliottii*), shiny blueberry (*Vaccinium myrsinites*), fetterbush (*Lyonia lucida*), rusty lyonia (*L. ferruginea*), and gallberry (*Ilex glabra*). Second-growth stands of longleaf pine (*Pinus palustris*) and slash pine (*P.elliotii*) are the dominant canopy species.

427 – Live Oak Hammock A small area of this community type has developed near the western half of the southeast portion of the largest mine pit lake. The mesic hammock contains a hardwood canopy dominated by mature live oaks that are covered with Spanish moss (*Tillandsia usneoides*) and resurrection fern (*Pleopeltis polypodioides*). Other species in the hammock include sweetgum, pignut hickory, saw palmetto, fringe tree (*Chionanthus virginicus*), American beautyberry (*Callicarpa americana*), yaupon (*Ilex vomitoria*), cabbage palm (*Sabal palmetto*), and muscadine grape (*Vitis rotundifolia*).

510 – Streams and Waterways – Drainage Ditch A series of agricultural ditches and man-made ditches cross the site that contains grasses and sedges. Maidencane (*Panicum hemitomon*), pipeworts (*Lachnocaulon* sp.), Skyflower (*Hydrolea corymbosa*) and cinnamon fern (*Osmunda cinnamomea*) occur in wetter ditches.

520 – Lakes The existing open water bodies were created after mining operations ceased. The edges of the lakes contain grasses and sedges.

523 – Lakes larger than 10 acres but less than 100 acres The existing open water bodies were created after mining operations ceased. The edges of the lakes contain grasses and sedges.

617 – Mixed Wetland hardwoods The park contains bottomland forest that occurs in a number of locations in the southern portion of the park in low-lying depressions that are rarely inundated. This system is characterized by a dense canopy of live oak (*Q. virginiana*), water oak (*Q. nigra*), laurel oak, (*Q. laurifolia*), red maple (*Acer rubrum*), and pignut hickory (*Carya glabra*) with a dense subcanopy of sabal palms. A number of species occur in the understory and ground cover including wax myrtle, common buttonbush (*Cephalanthus occidentalis*), and royal fern (*Osmunda regalis*).

640/643 – Wet Prairie The best examples of this habitat have a relatively diverse, intact native groundcover with species including maidencane (*Panicum hemotomon*), sand cordgrass (*Spartina bakeri*), alligator flag (Thalia geniculata), pickerelweed (Pontederia cordata), water hyssop (*Bacopa caroliniana*), buttonweed (*Diodea virginianum*), white-top sedge (*Dicromena colorata*), and St. John's-wort (*Hypericum cistifolium*).

621 – Cypress Dome. Dome swamps are a dominant feature in the park. Most are embedded in a matrix of pine flatwoods – typical of the Green Swamp landscape. Disturbances include shortened hydroperiod due to ditching and water diversions. Bald cypress (*Taxodium distichum*) are the dominant tree with occasional laurel oak (*Q. laurifolia*) and water oak (*Q. nigra*). Other common tree species include sweetgum (*Liquidambar styraciflua*), red maple (*Acer rubrum*), popash (*Fraxinus caroliniana*), and American elm (*Ulmus americana*). Herbaceous vegetation is often dominated by sawgrass (*Cladium jamaicensis*), Virginia willow (*Itea virginica*), swamp milkweed (*Asclepias incarnata*), Virginia iris (*Iris virginica*) and squarestem (*Melanthera nivea*). Disturbed edges generally are dominated by the invasive exotic torpedograss (*Panicum repens*).

740 – Disturbed Lands These areas include lands which have been changed due primarily to secondary mining and agricultural activities.

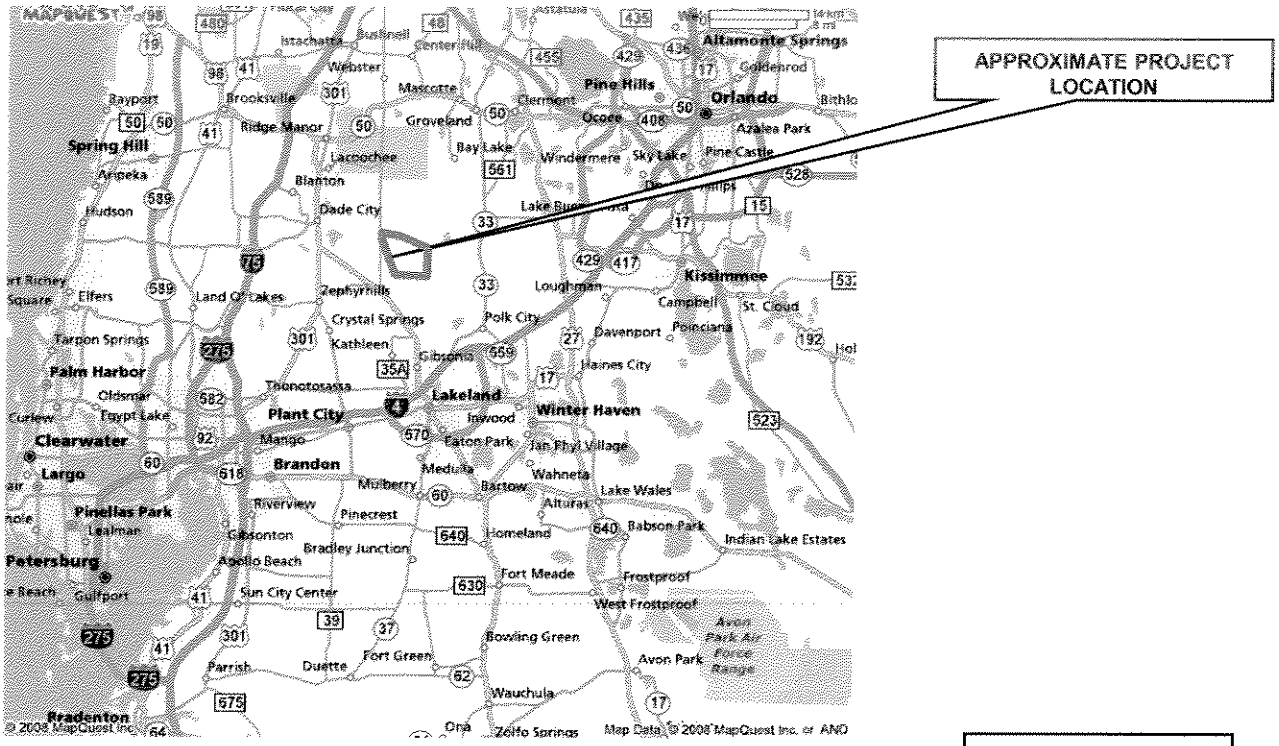
PRELIMINARY SPECIES SURVEYS

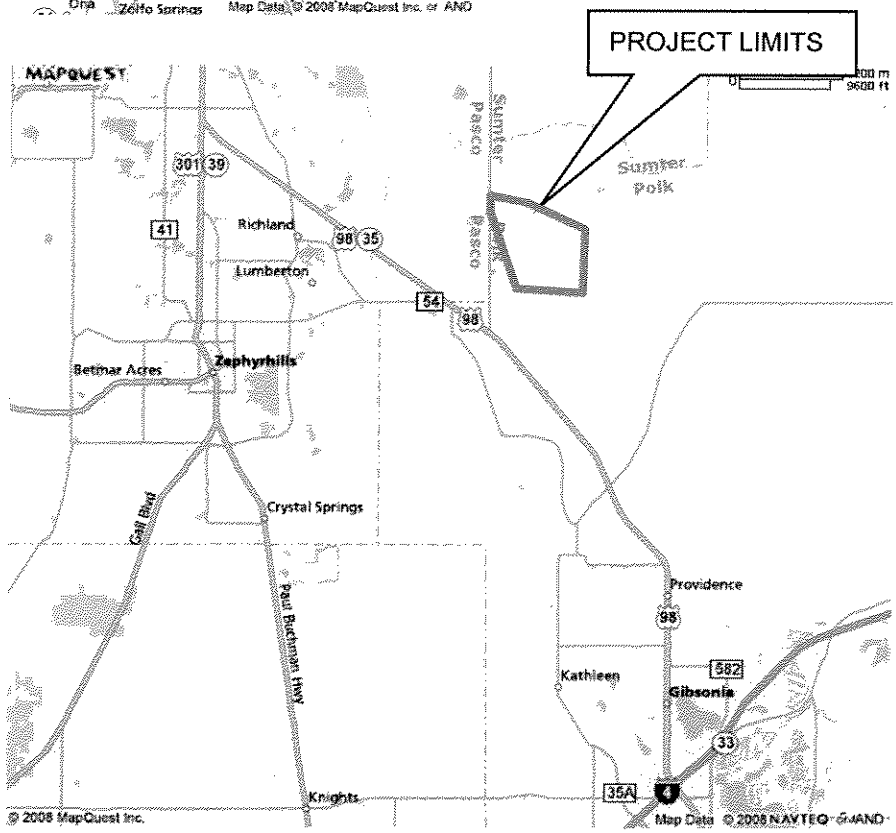
The park provides habitat for abundant native wildlife including the gopher tortoise, bald eagle, alligator, white-tailed deer, wild turkey, fox, bobcat, sand skink, bluetailed mole skink, bobwhite quail, sandhill crane and wood storks. A review of the Florida Natural Areas Inventory (FNAI) online database was made to determine listed species occurrences within Polk County. Designated species are those that are listed by the Florida Natural Areas Inventory, U.S. Fish and Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission (FWC), and the Florida Department of Agriculture and Consumer Services (FDA) as endangered, threatened or of special concern. The UMP contains a list of the designated species and their designated status for this park. The following listed species were observed during site reconnaissance.

Gopher Tortoises (Gopherus polyphemus)

Meandering surveys over 15% of suitable gopher tortoise habitat has been conducted in accordance with survey techniques recommended by Cox et al. (1987). A small number of active and inactive gopher tortoise burrows were observed on the subject site during field reconnaissance. The gopher tortoise was recently up-listed to "threatened" by FWC. In accordance with the new gopher tortoise management plan, if gopher tortoise burrows cannot be avoided during construction, (defined as a 25 foot buffer area surrounding each burrow) a relocation permit must be obtained from the FWC. Gopher tortoises can potentially be relocated to suitable locations within the protected open space onsite. A formal survey will be required to determine the density of gopher tortoises on the subject site. FWC requires that formal surveys for relocation permits be performed **no more** than 90 days prior to site development, and tortoises should be relocated just prior to site clearing. Local government approval for the proposed construction is required prior to issuance of a relocation permit from FWC. If relocation on site is not a viable alternative, relocation to a viable relocation site within a 100 mile radius may be considered. Permitting should be expected to take 30 to 90 days after a new survey is completed.

Source: MapQuest, 2008





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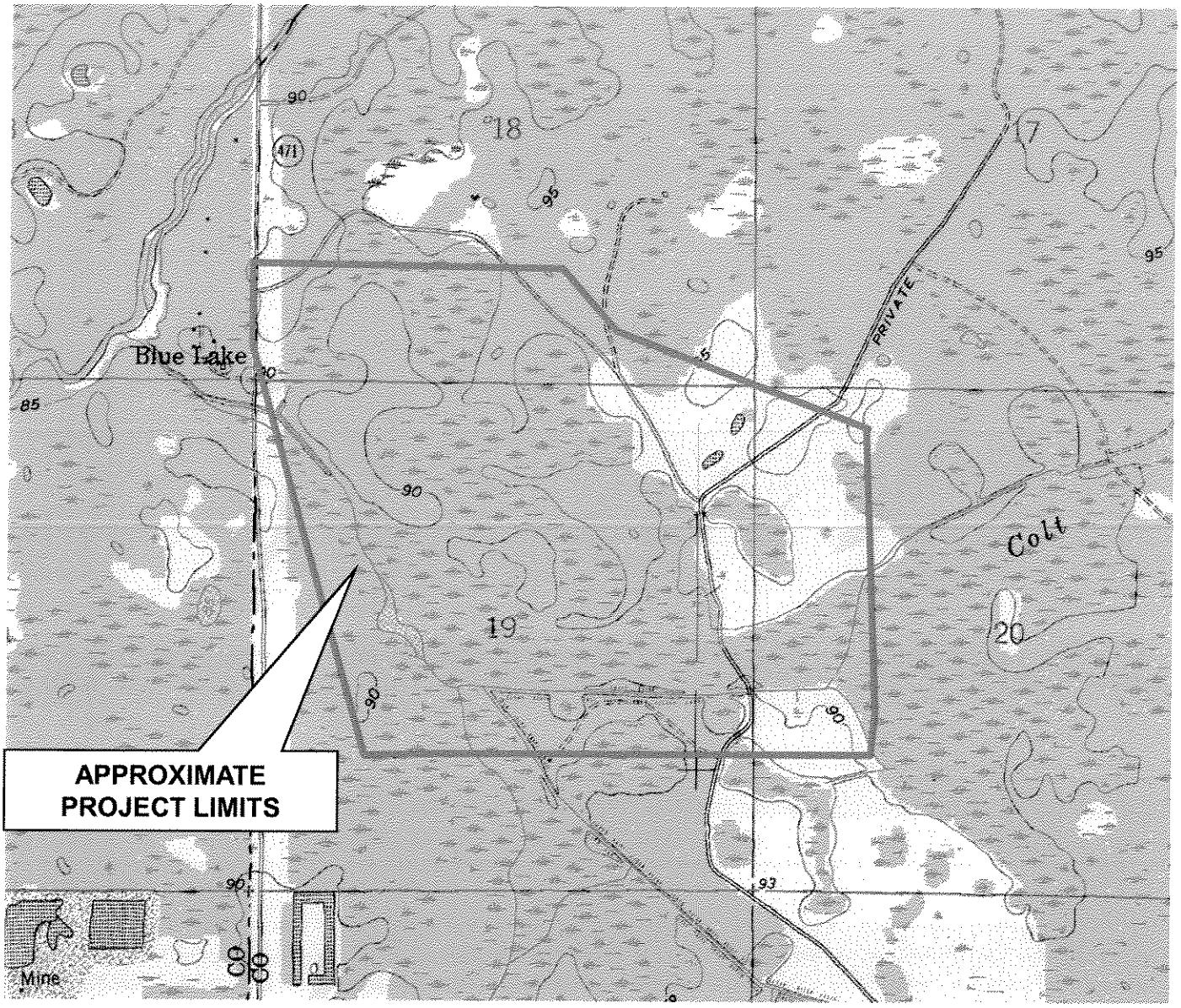
LOCATION MAP

Phase I of Colt Creek State Park Improvements
Polk County, FL
Section , Township South, Range East

SCALE: NTS	PROJECT NO	May 2008	FIGURE 1

Source: DeLorme 3D TopoQuads; USGS Data: *Lake Arbuckle SW (FL)* 7.5 Minute Quadrangle



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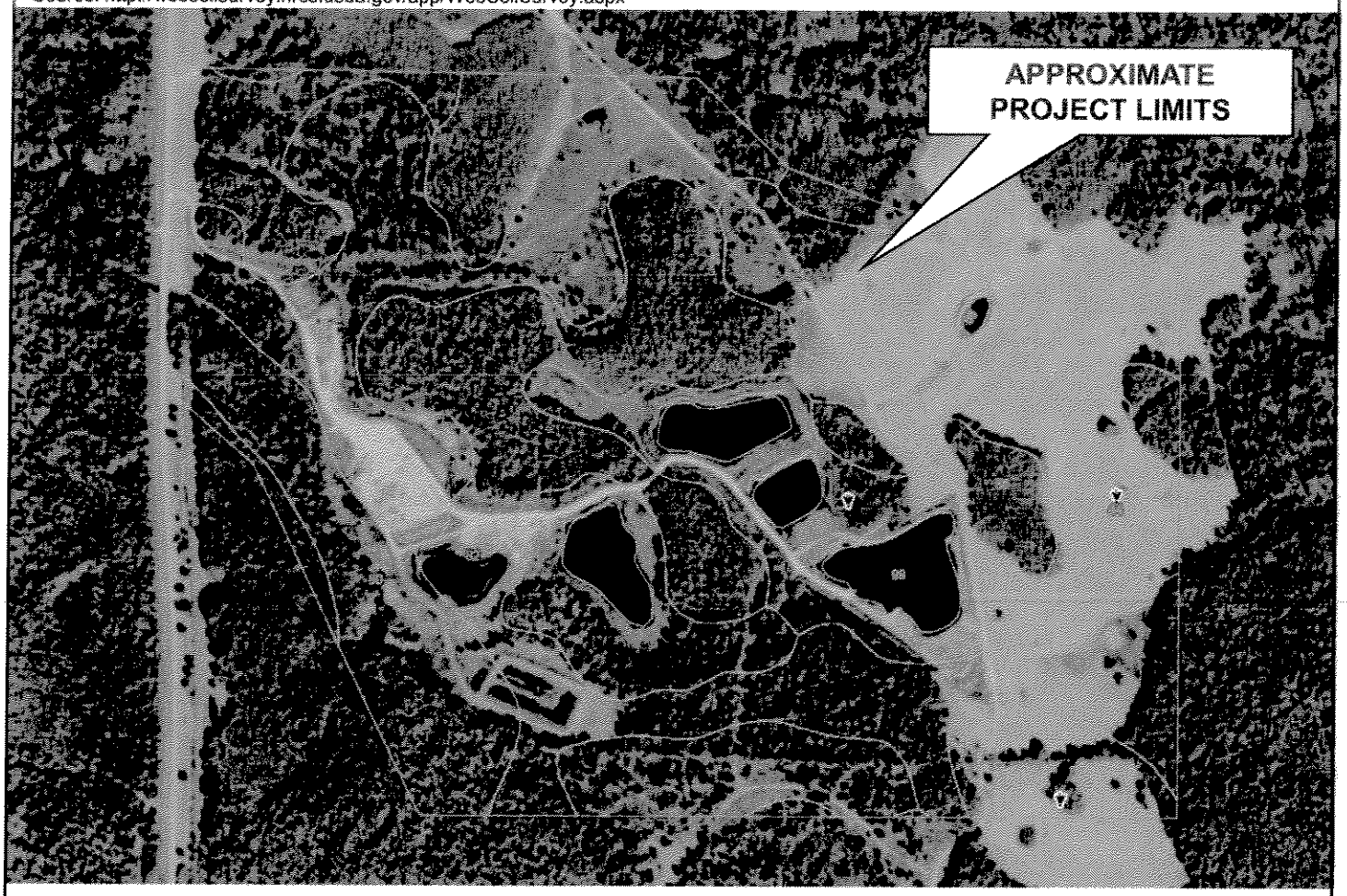
USGS 7.5 MINUTE QUADRANGLE

Phase I of Colt Creek State Park Improvements
Polk County, FL
Section , Township South, Range East

SCALE: NTS	PROJECT NO	May 2008	FIGURE 2

Source: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx



Map Unit Symbol	Map Unit Name
42	Felda fine sand*
44	Paisley fine sand*
58	Udorthents, excavated
78	Paisley fine sand, stony subsurface*
80	Chobee fine sandy loam, frequently flooded*
82	Felda fine sand, frequently flooded*
86	Felda fine sand, depressional*
99	Water

*** Hydric**

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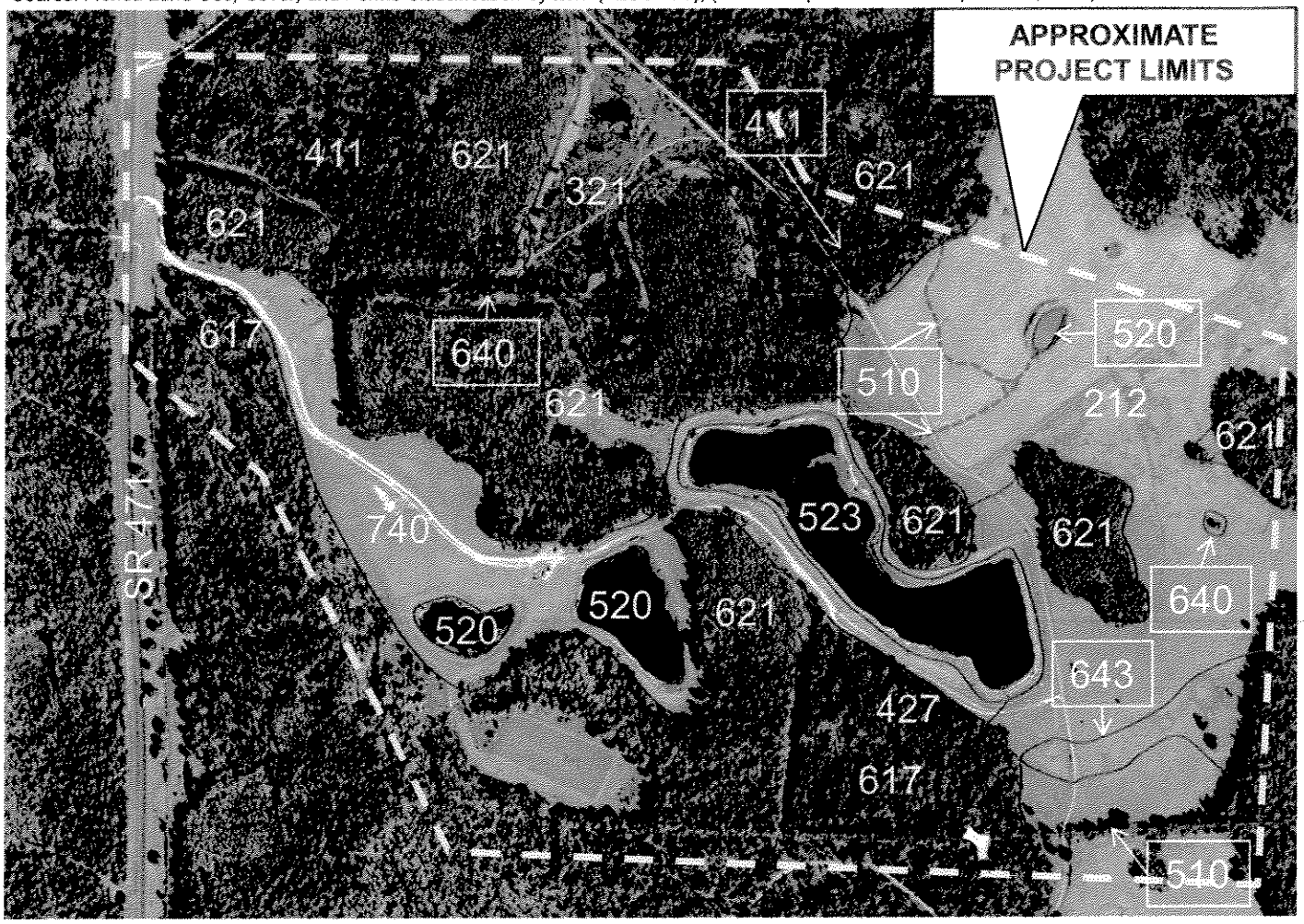
SOILS MAP

Phase I of Colt Creek State Park Improvements
Polk County, FL
Section , Township South, Range East

SCALE: NTS	PROJECT NO	May 2008	FIGURE 3

Source: *Florida Land Use, Cover, and Forms Classification System* (FLUCFCS), (Florida Department of Transportation, 1999)



Approximate Project Limits

Drainage Ditch

212 – Unimproved Pasture
321 – Palmetto Prairie
411 – Pine Flatwoods
427 – Live Oak Hammock
510 – Streams and Waterways – Drainage Ditch
520 – Lakes
523 – Lakes larger than 10 acres but less than 100 acres
617 – Mixed Wetland Hardwoods
621 – Cypress Dome
640 – Vegetated Non-Forested Wetland
643 – Wet Prairie
740 – Disturbed Lands

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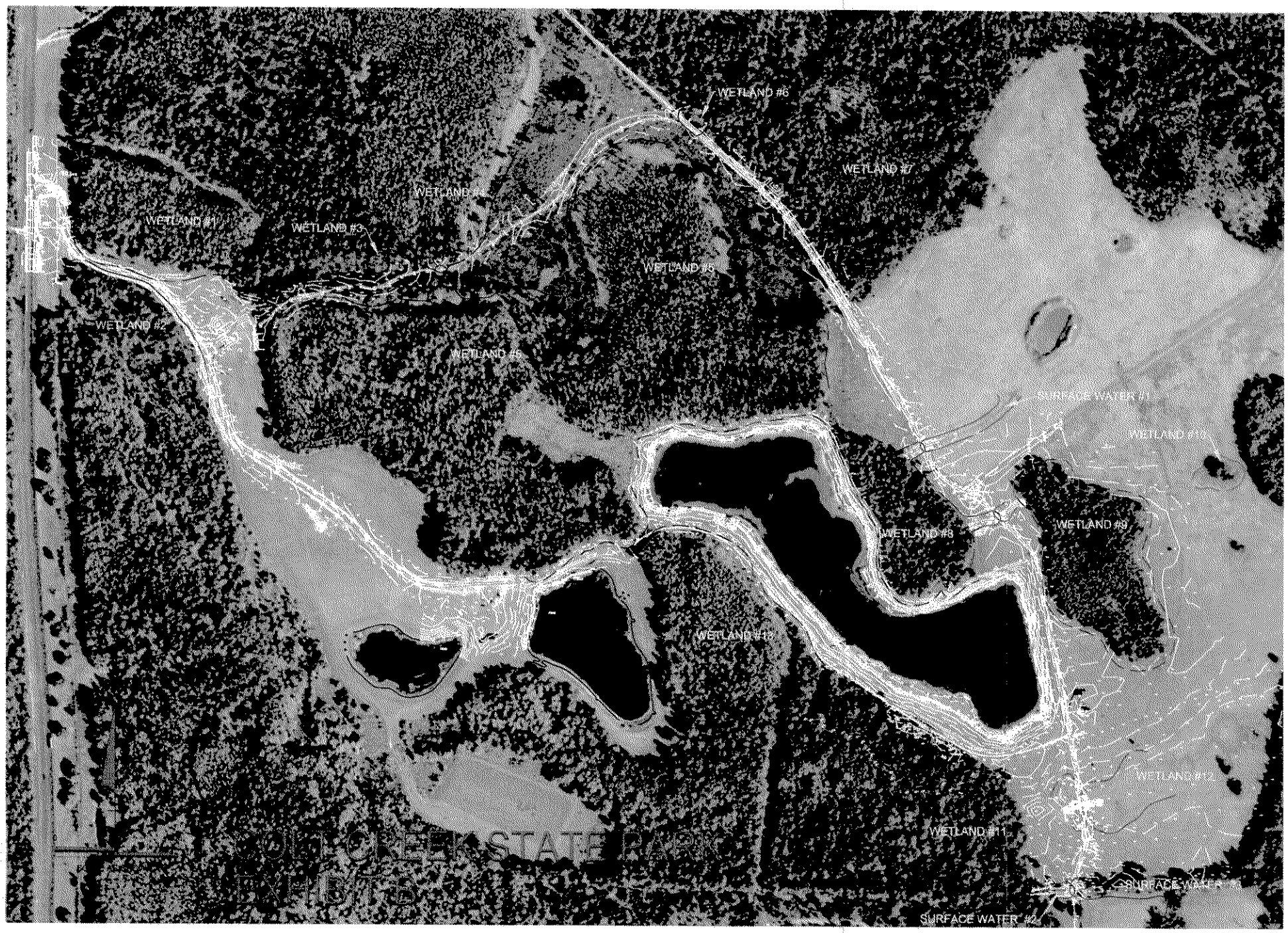
FLUCFCS MAP

Phase I of Colt Creek State Park Improvements
Polk County, FL
Section , Township South, Range East

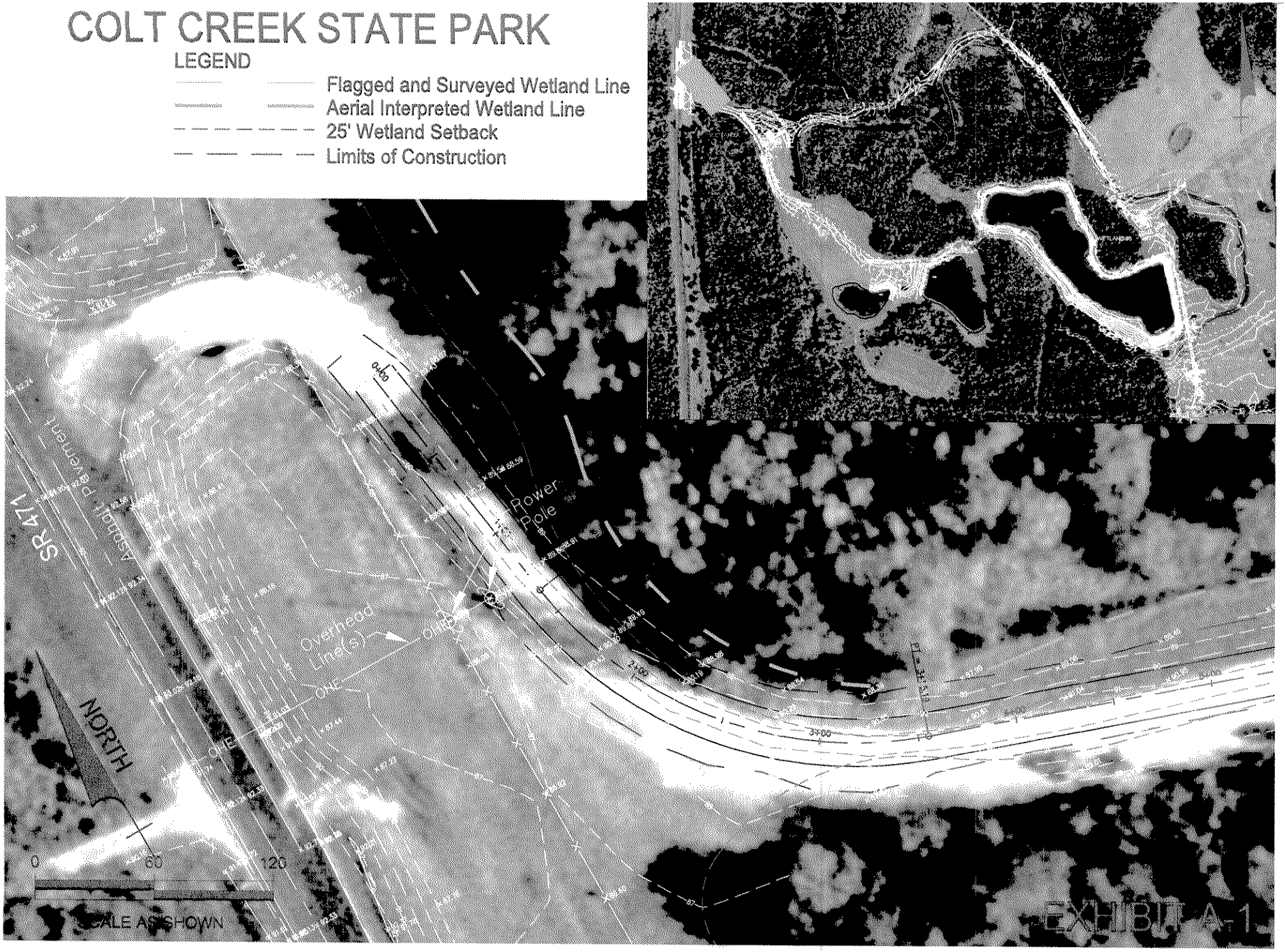
SCALE: NTS	PROJECT NO	May 2008	FIGURE 4


WETLAND #6
WETLAND #7
WETLAND #4
WETLAND #1
WETLAND #3
WETLAND #5
WETLAND #2
WETLAND #8
WETLAND #9
WETLAND #11
SURFACE WATER #2

COLT CREEK STATE PARK

LEGEND

- Flagged and Surveyed Wetland Line
- Aerial Interpreted Wetland Line
- 25' Wetland Setback
- Limits of Construction



COLT CREEK STATE PARK

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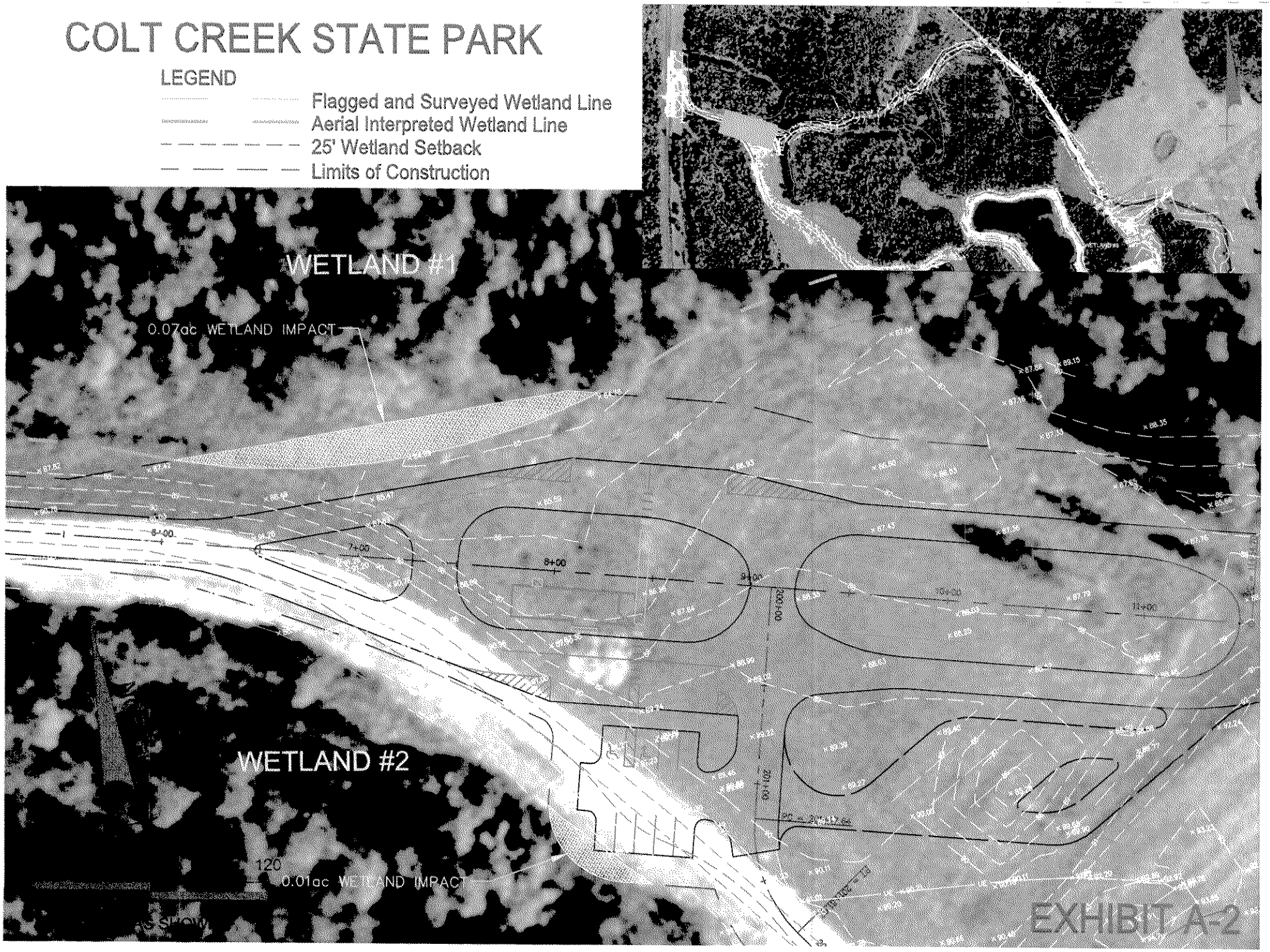

COLT CREEK STATE PARK

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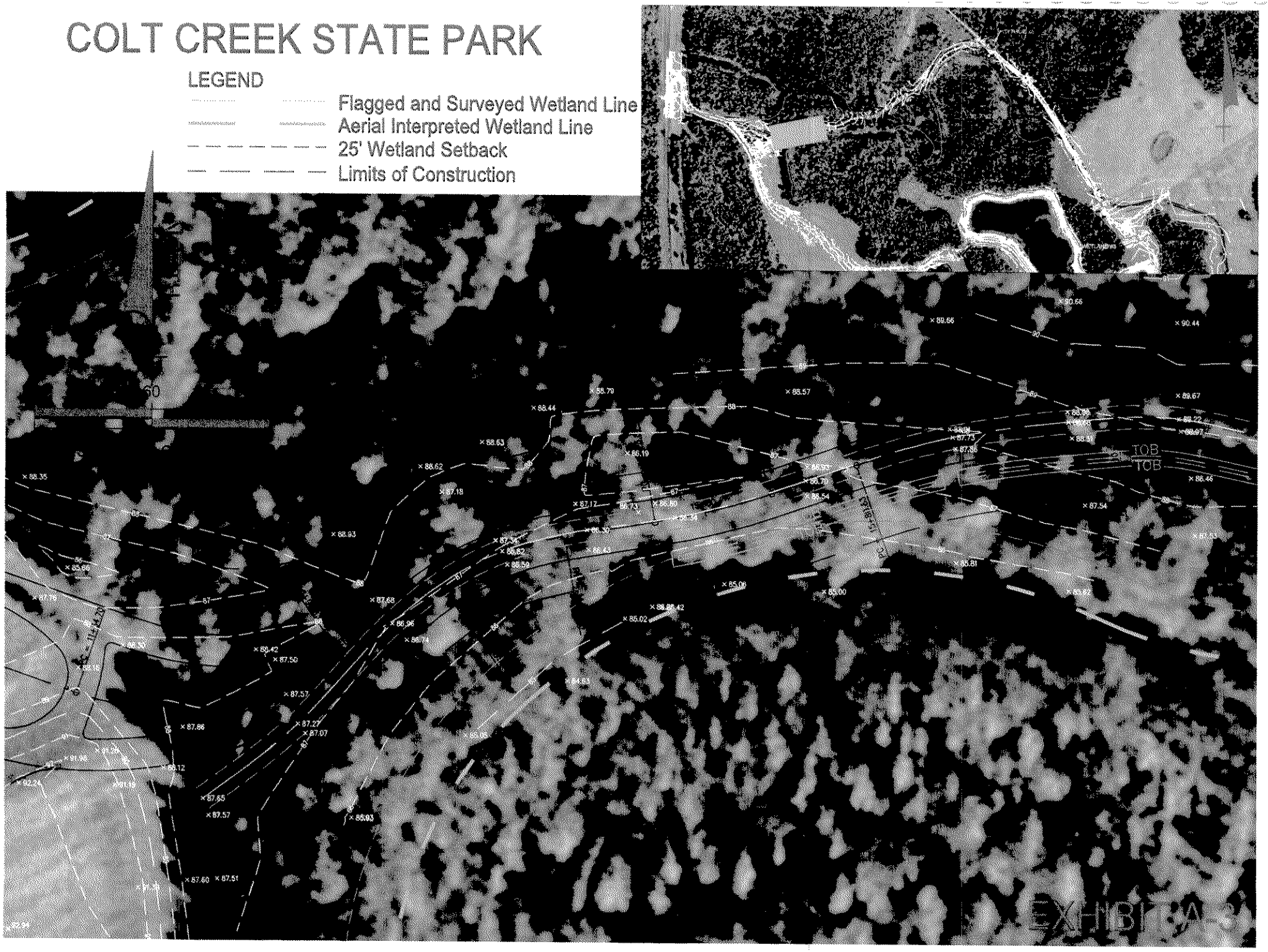

COLT CREEK STATE PARK

LEGEND

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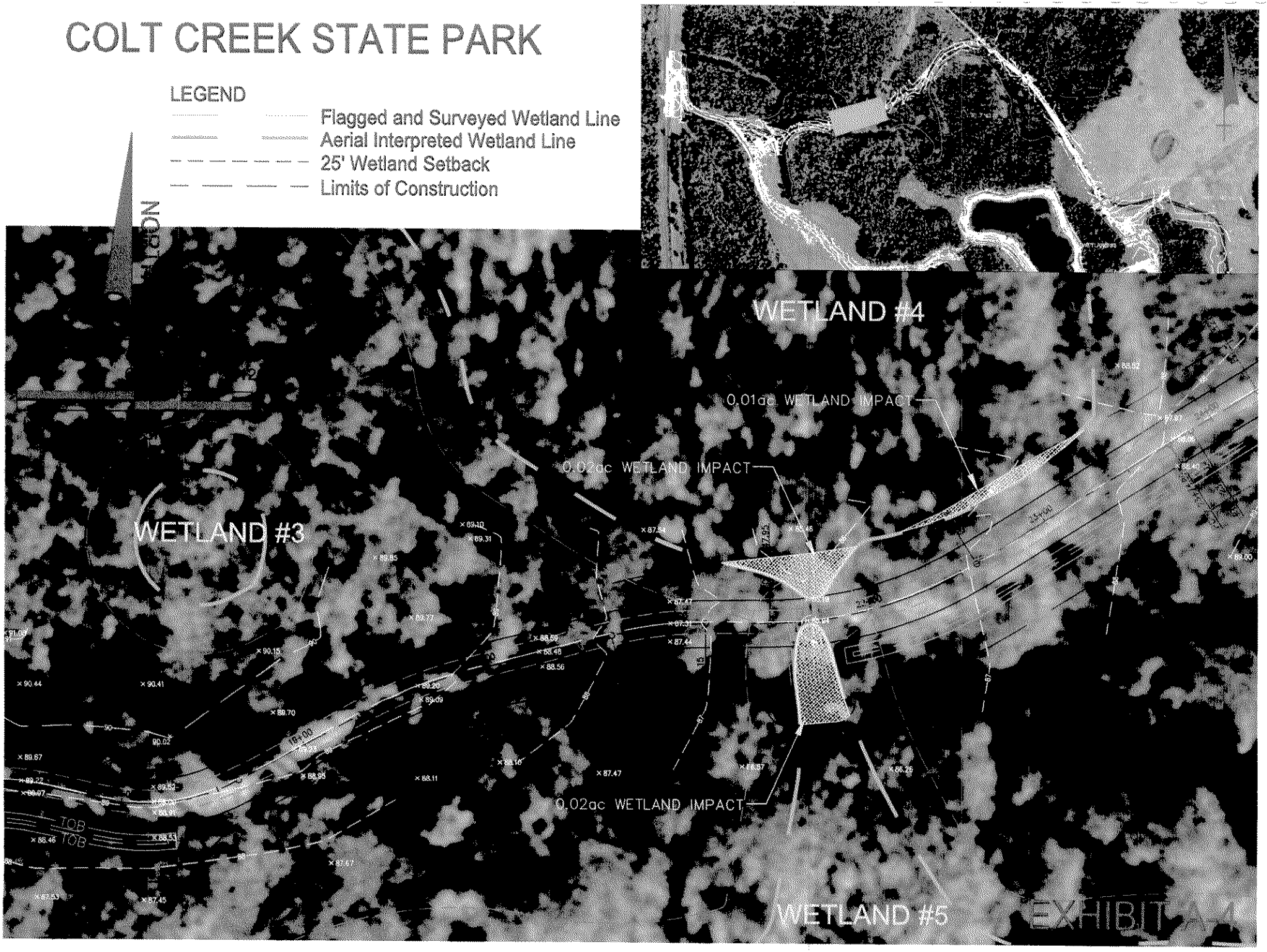

COLT CREEK STATE PARK

LEGEND

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- Aerial Interpreted Wetland Line
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COLT CREEK STATE PARK

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COLT CREEK STATE PARK

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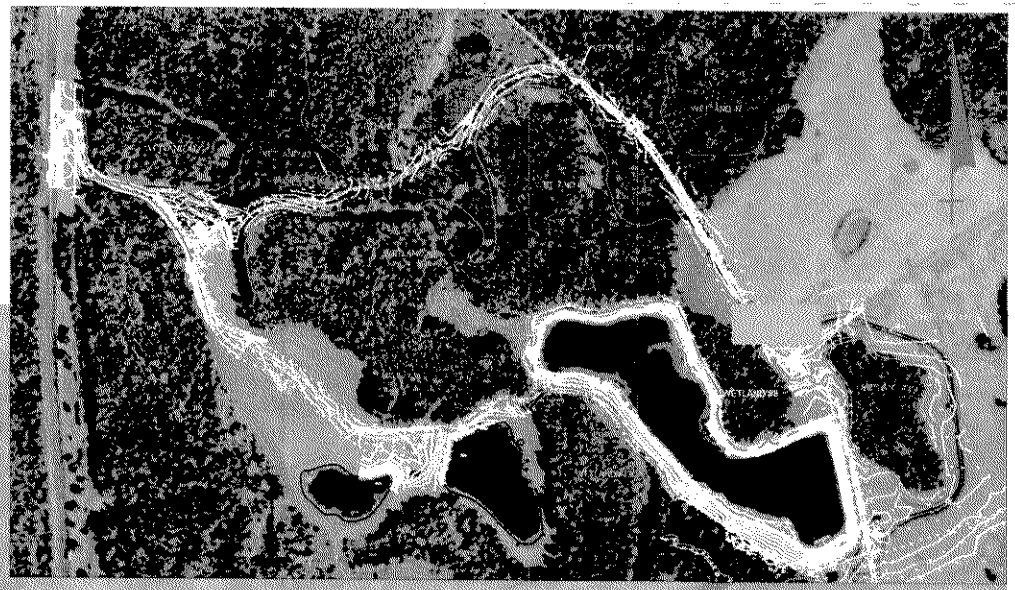


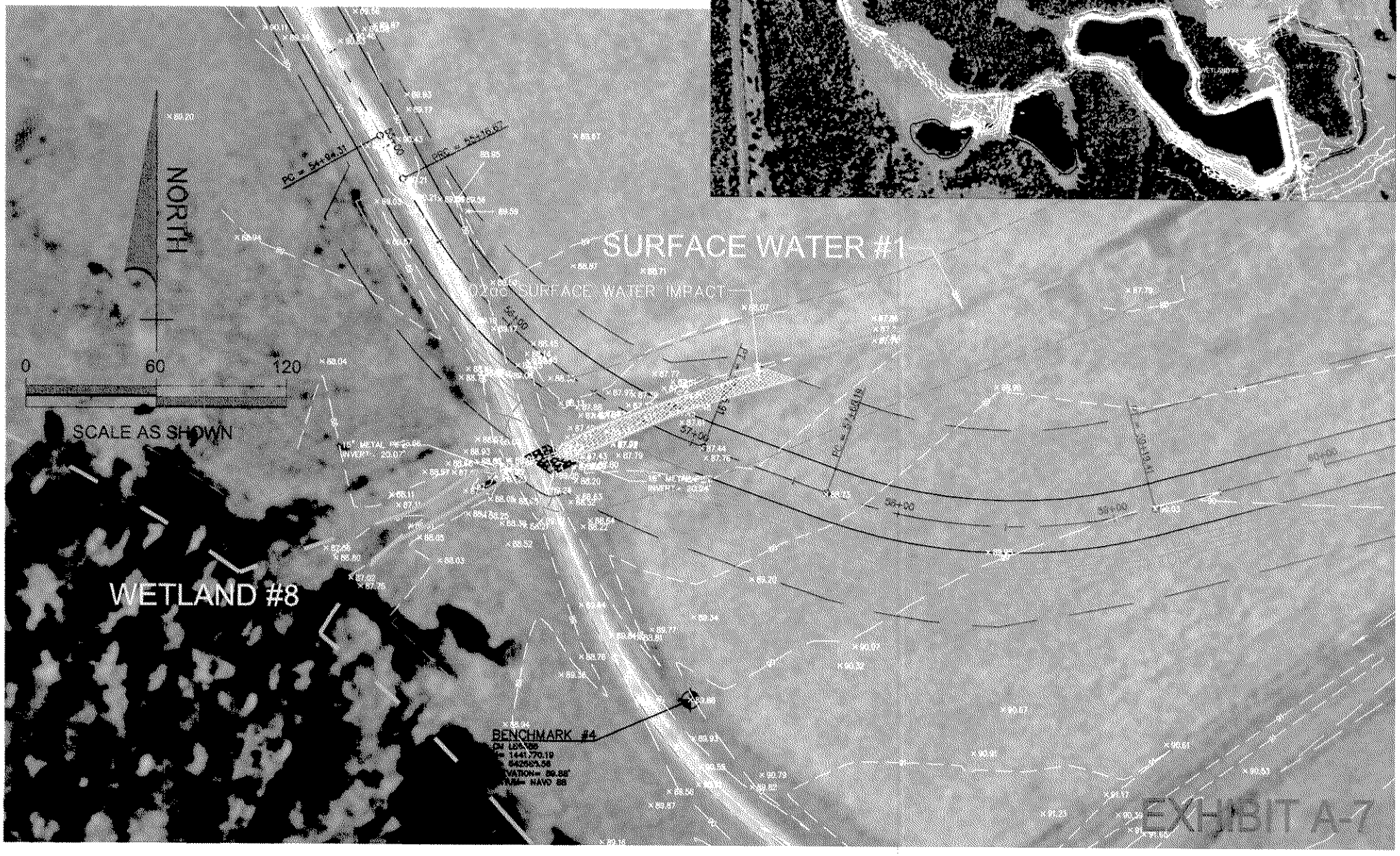


EXHIBIT A-7

COLT CREEK STATE PARK

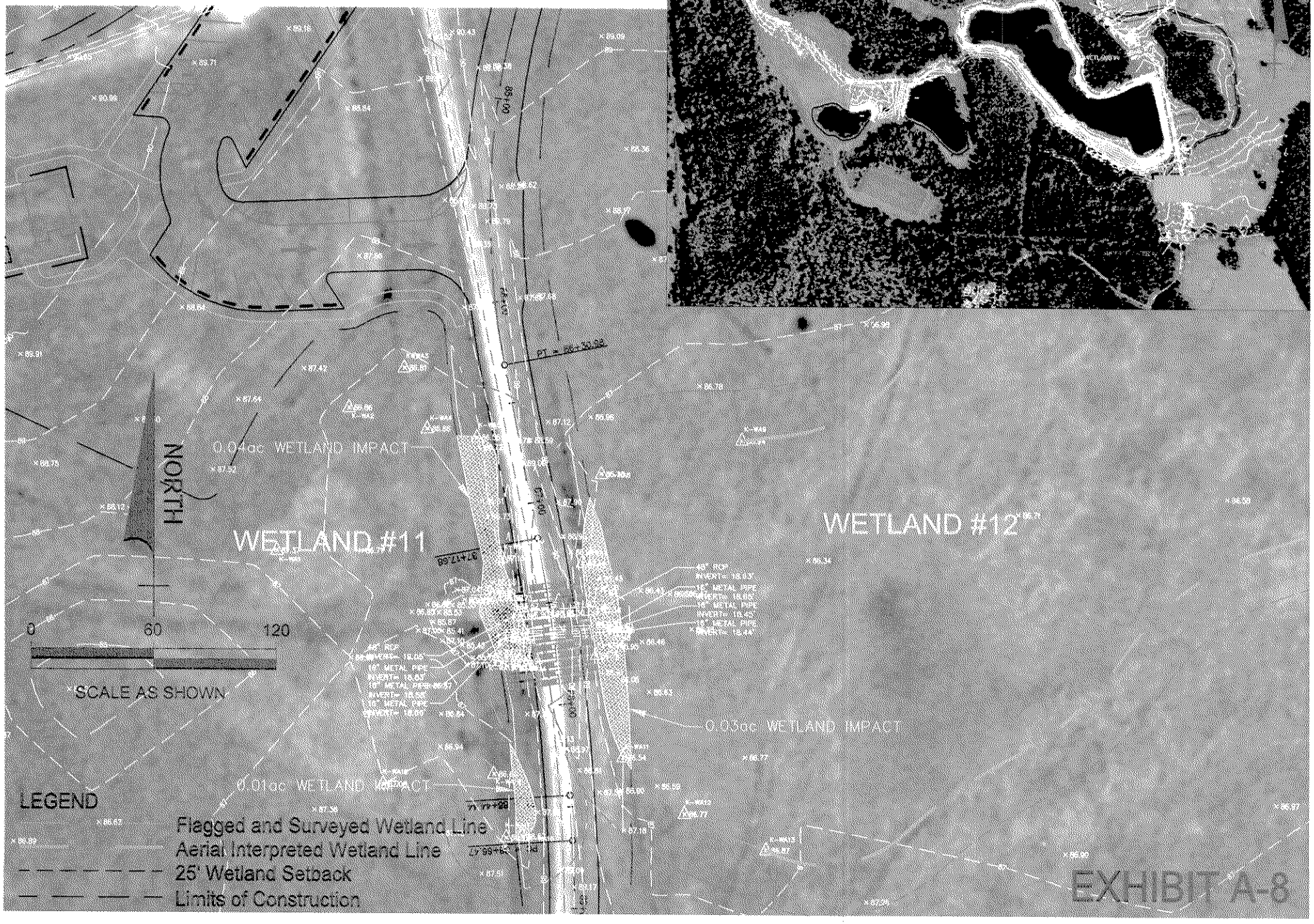
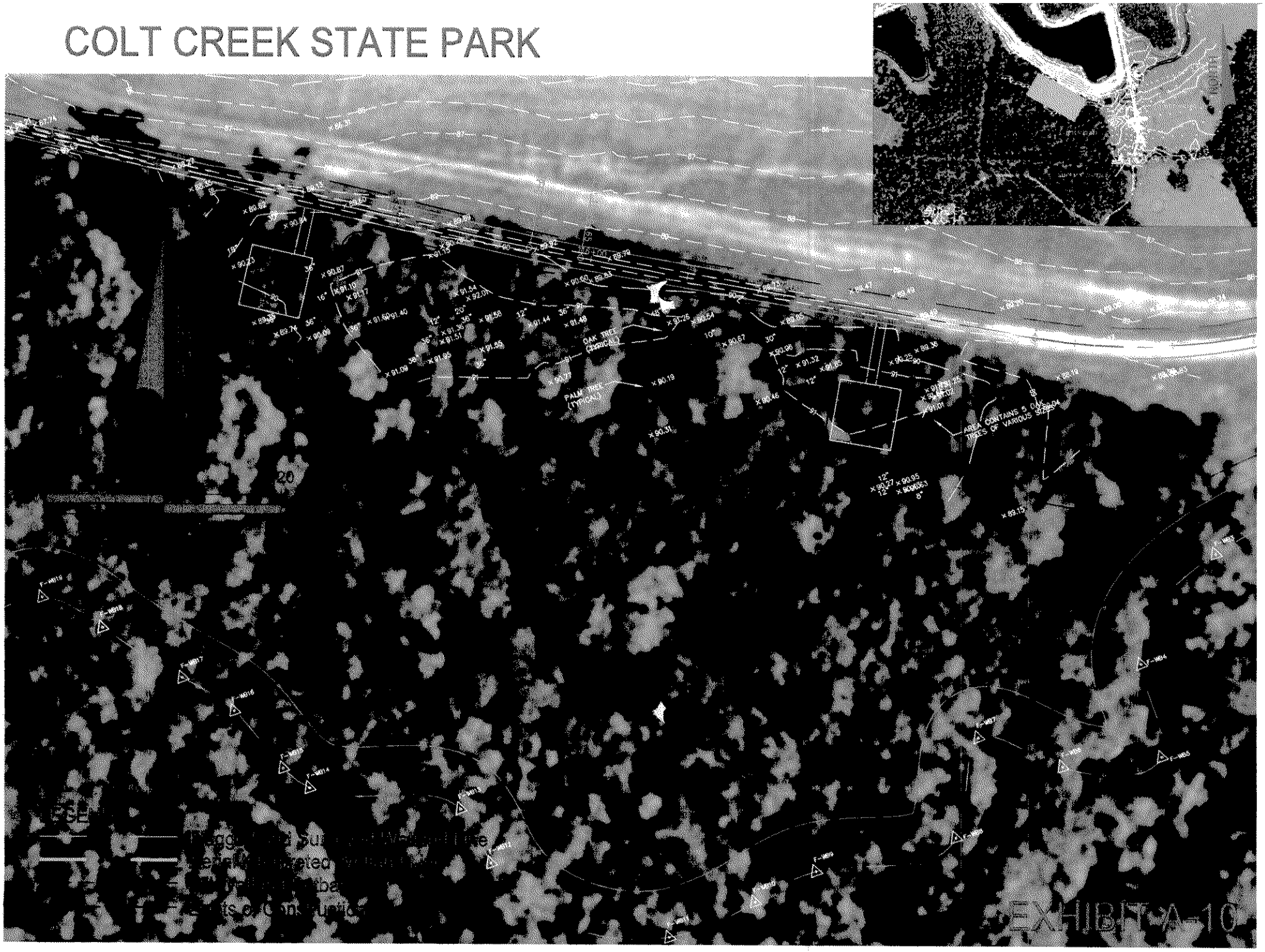


EXHIBIT A-8

COLT CREEK STATE PARK

EXHIBIT A-9

COLT CREEK STATE PARK

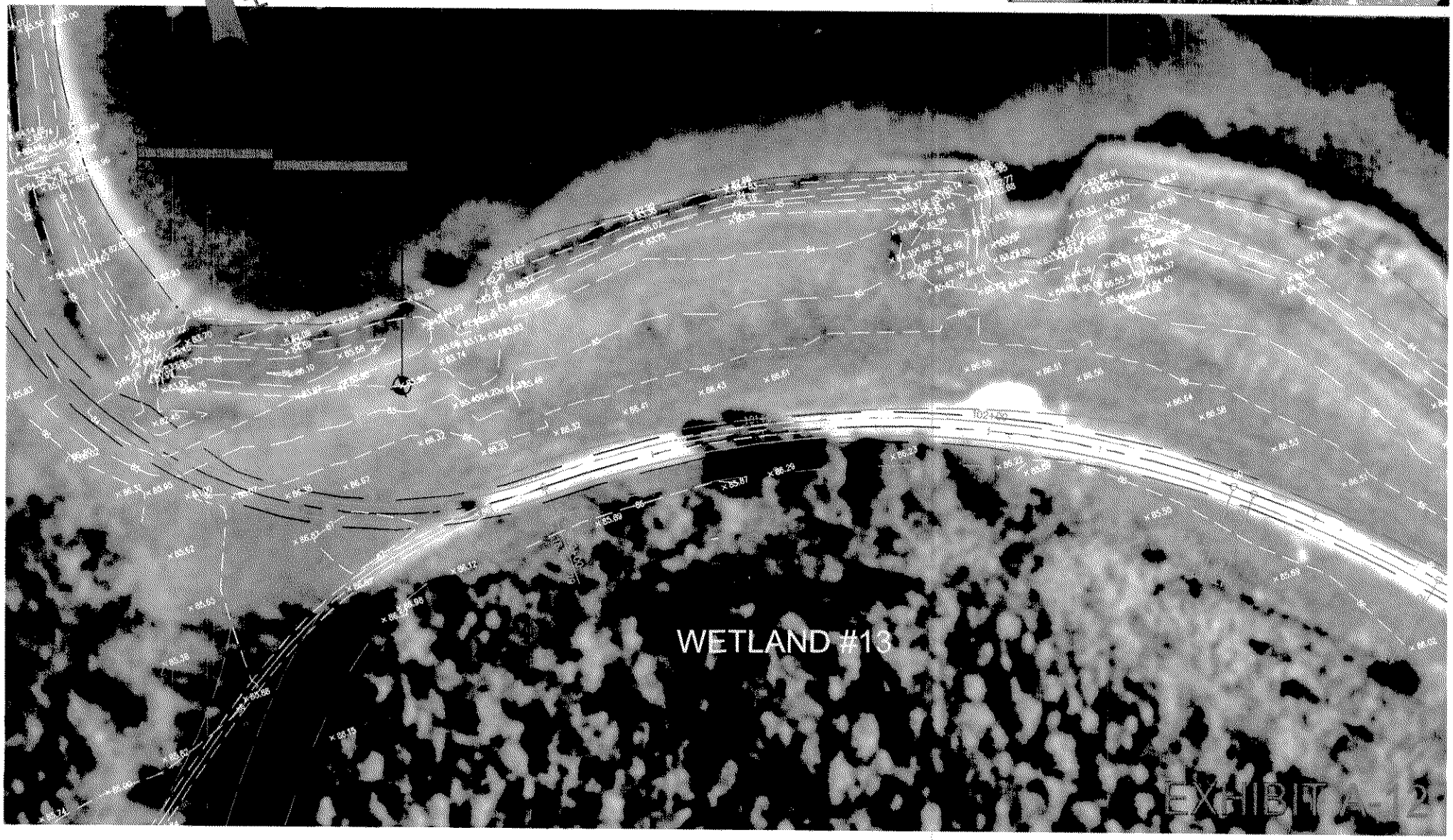


COLT CREEK STATE PARK

COLT CREEK STATE PARK

LEGEND

- Flagged and Surveyed Wetland Line
- Aerial Interpreted Wetland Line
- 25' Wetland Setback
- Limits of Construction



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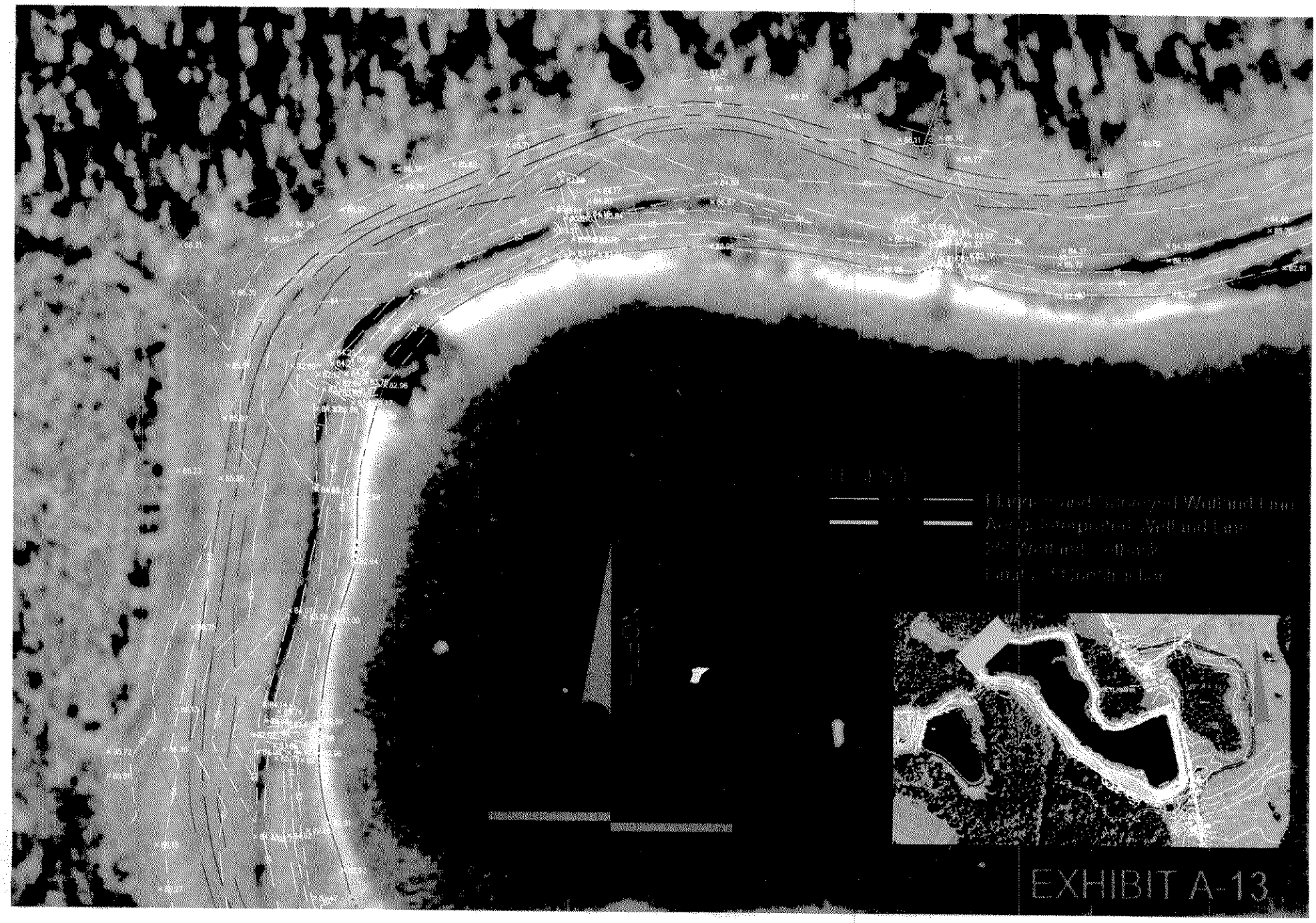
COLT CREEK STATE PARK



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COLT CREEK STATE PARK

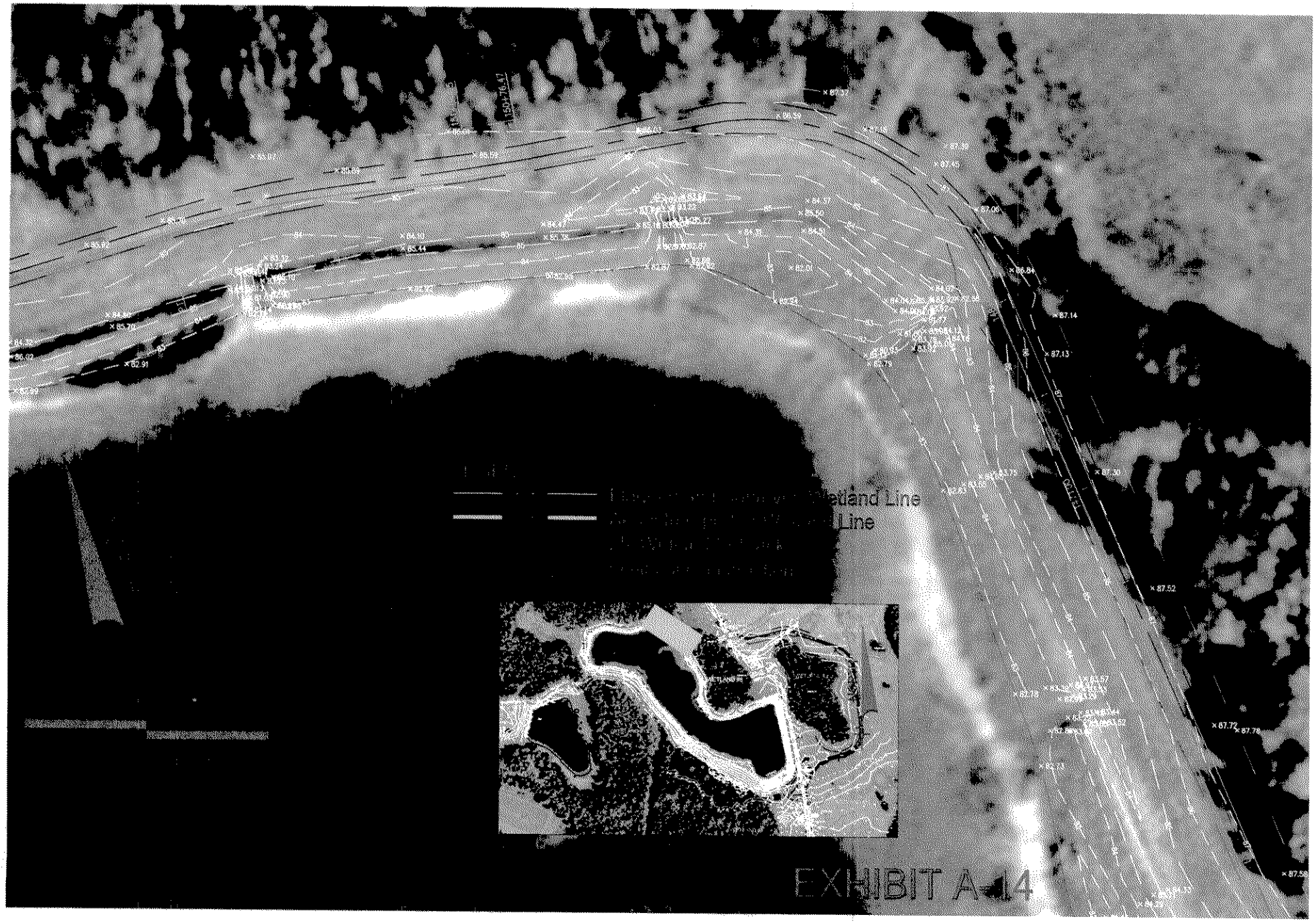

EXHIBIT A-14

COLT CREEK STATE PARK

LEGEND

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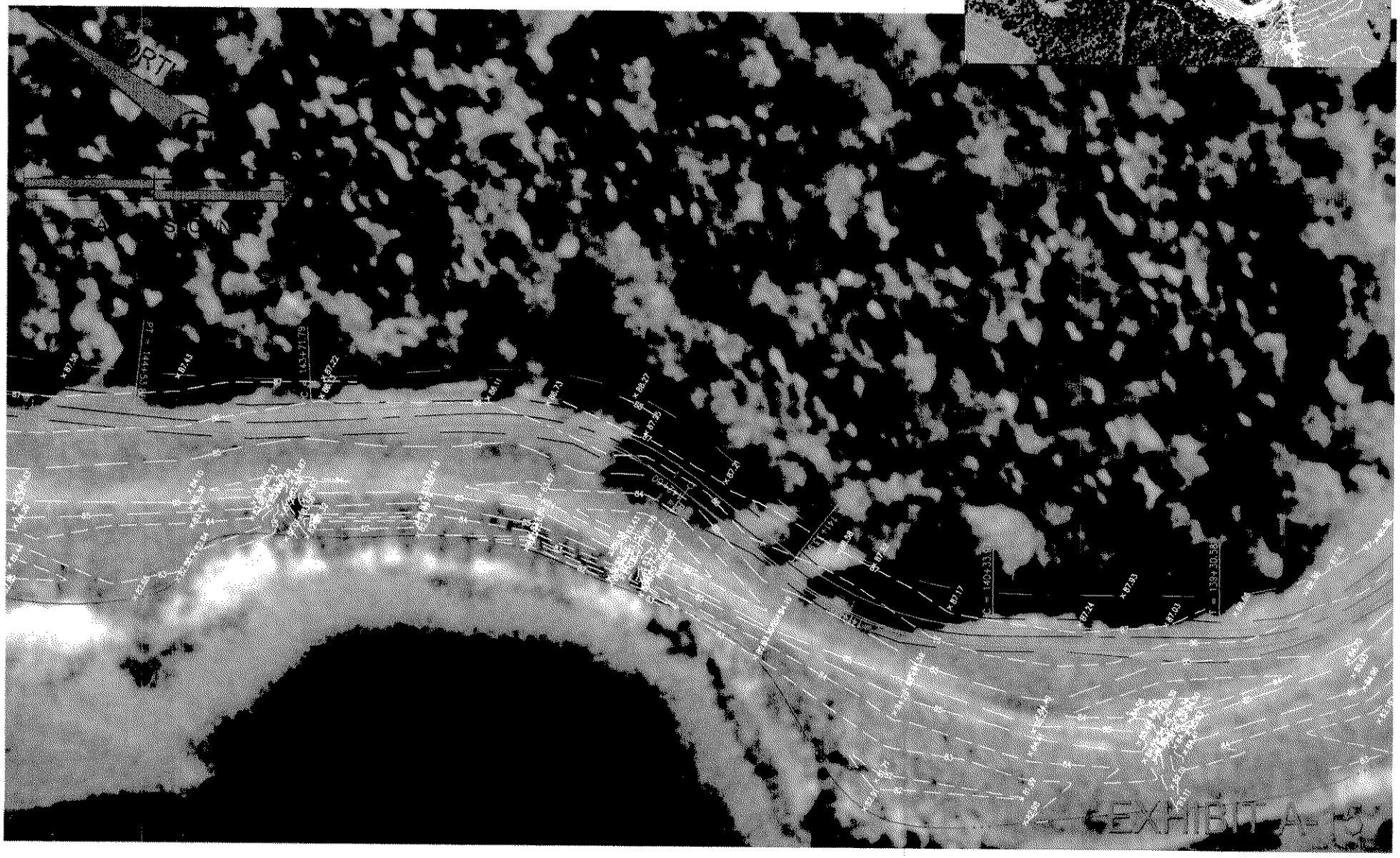
- Aerial Interpreted Wetland Line
- 25' Wetland Setback
- Limits of Construction



COLT CREEK STATE PARK

LEGEND

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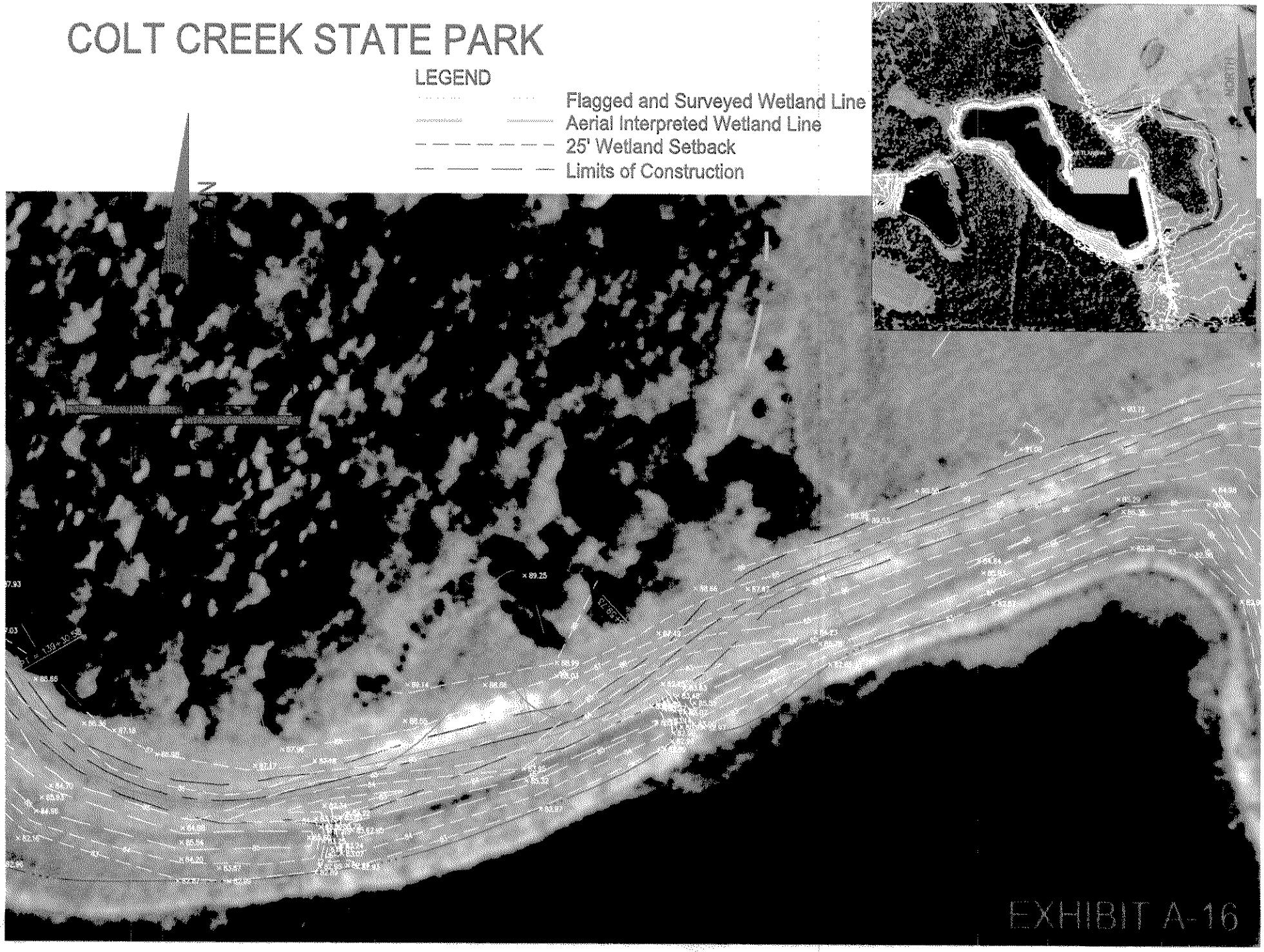

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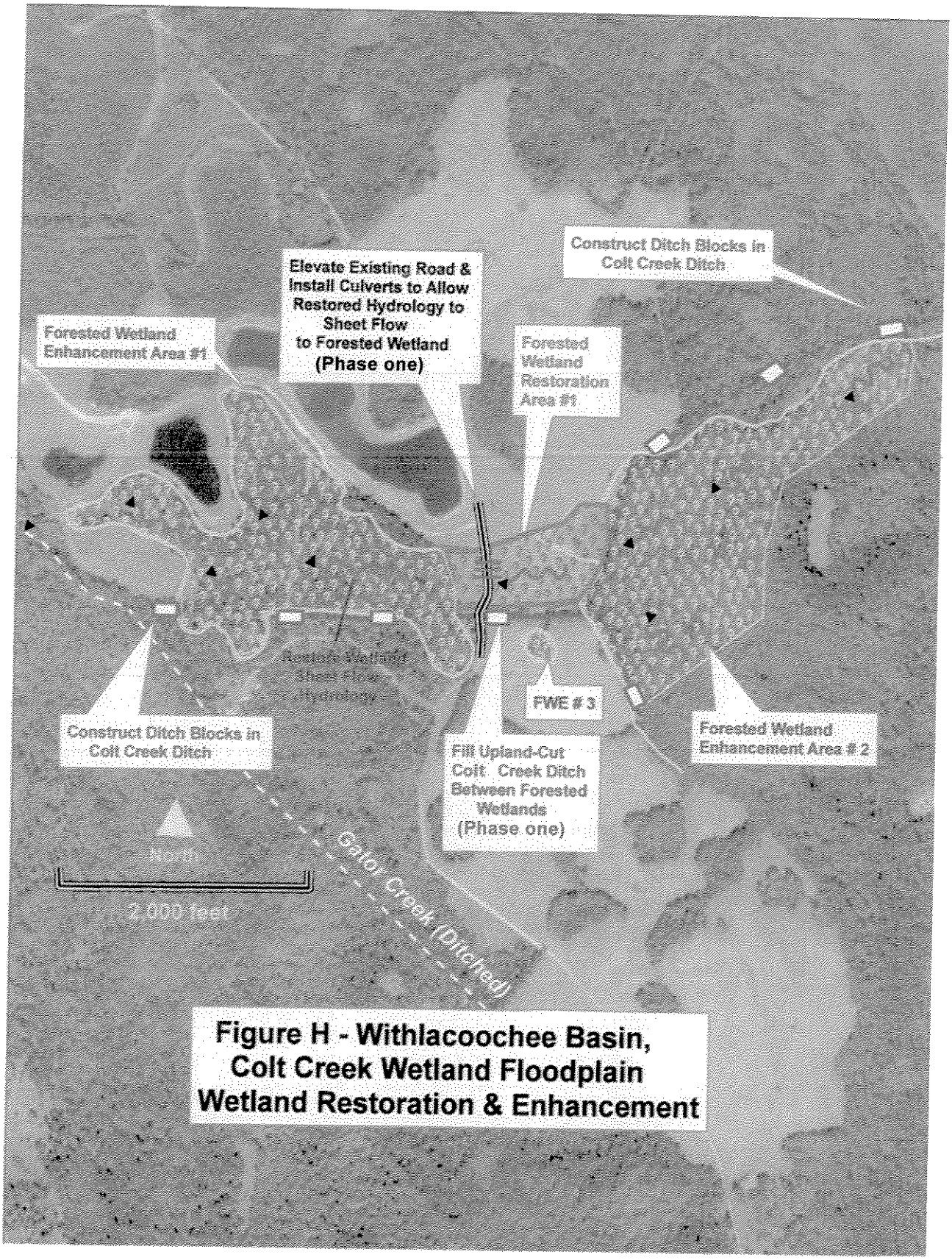

Figure H - Withlacoochee Basin, Colt Creek Wetland Floodplain Wetland Restoration & Enhancement