Attachment D - Wetland Assessments and Correspondence

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Background Information

Name:	Brad Dethero
Date:	08/15/2009
Affiliation:	Geo-Source, Inc.
Address:	462 N. Court Street, Florence, AL 35630
Phone Number:	(256) 767-2000
e-mail address:	brad@geo-source.com
Name of Wetland:	001
Vegetation Communit(ies):	cattail-rush-sedge with Alligatorweed
HGM Class(es):	Flat/Depressional (Disturbed/Altered)

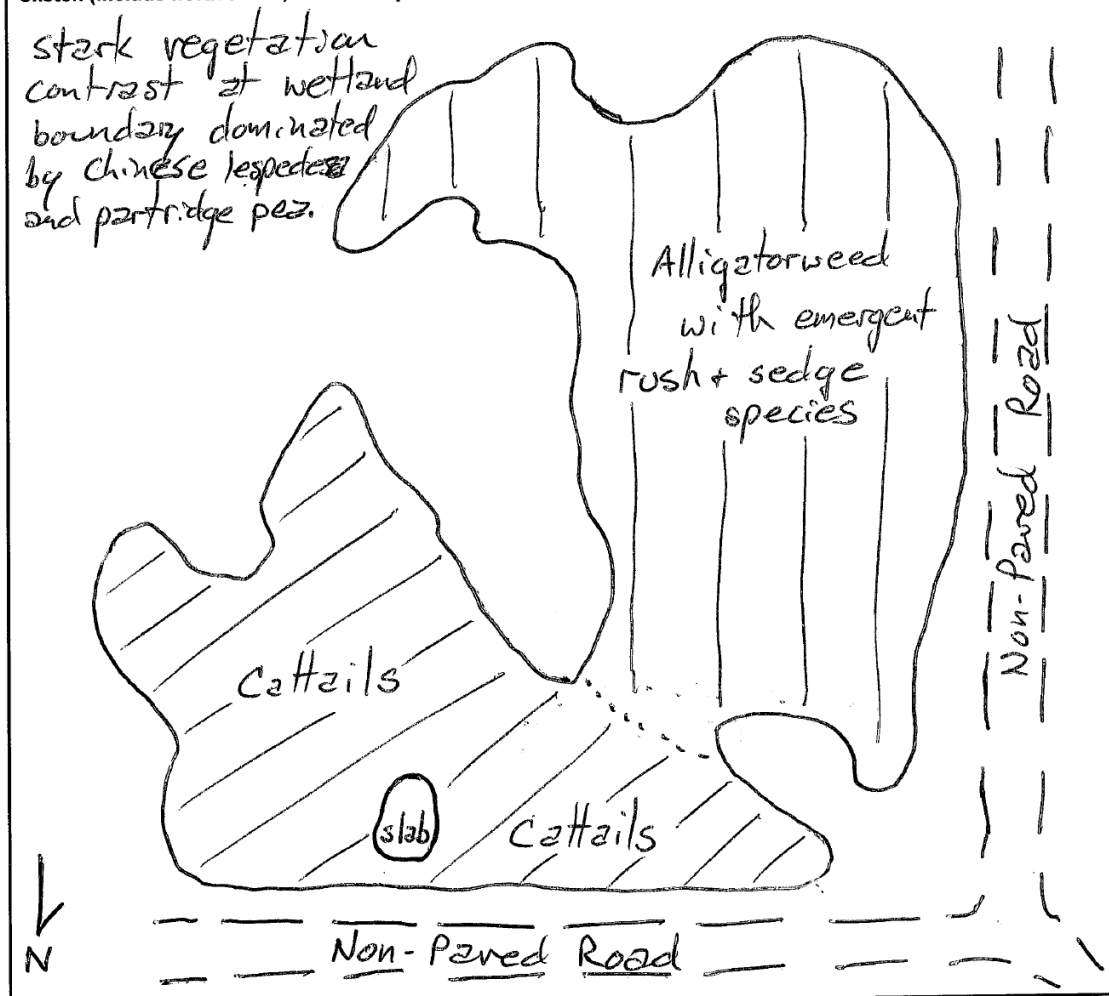
Location of Wetland include map, address, north arrow, landmarks, distances, roads, etc.

Located in the southeast portion of the Yellow Creek State Inland Port, approximately 11 miles north of Iuka, MS. Wetland occurs on an upland area of a TVA parcel adjoining Pickwick Reservoir of the Tennessee River in SE/4 SE/4 Section 22 and NW/4 of Section 27, T1S, R10E. The wetland and property parcel (TVA) are illustrated on a portion of the USGS 7.5' "Yellow Creek" topographic map attached.

Lat/Long or UTM Coordinate	N 34.97158°, W088.23436°	
USGS Quad Name	Yellow Creek (MS)	
County	Tishomingo, MS	
Township	—	
Section and Subsection	—	
Hydrologic Unit Code	06030005	
Site Visit	08/14/2009	
National Wetland Inventory Map	No wetlands indicated	
Ohio Wetland Inventory Map	—	
Soil Survey	Saffell series (SA)	
Delineation report/map	08/14/2009	
Wetland Size (acres, hectares)	1.04 Acres	

Name: 001 (1.04 Acres)

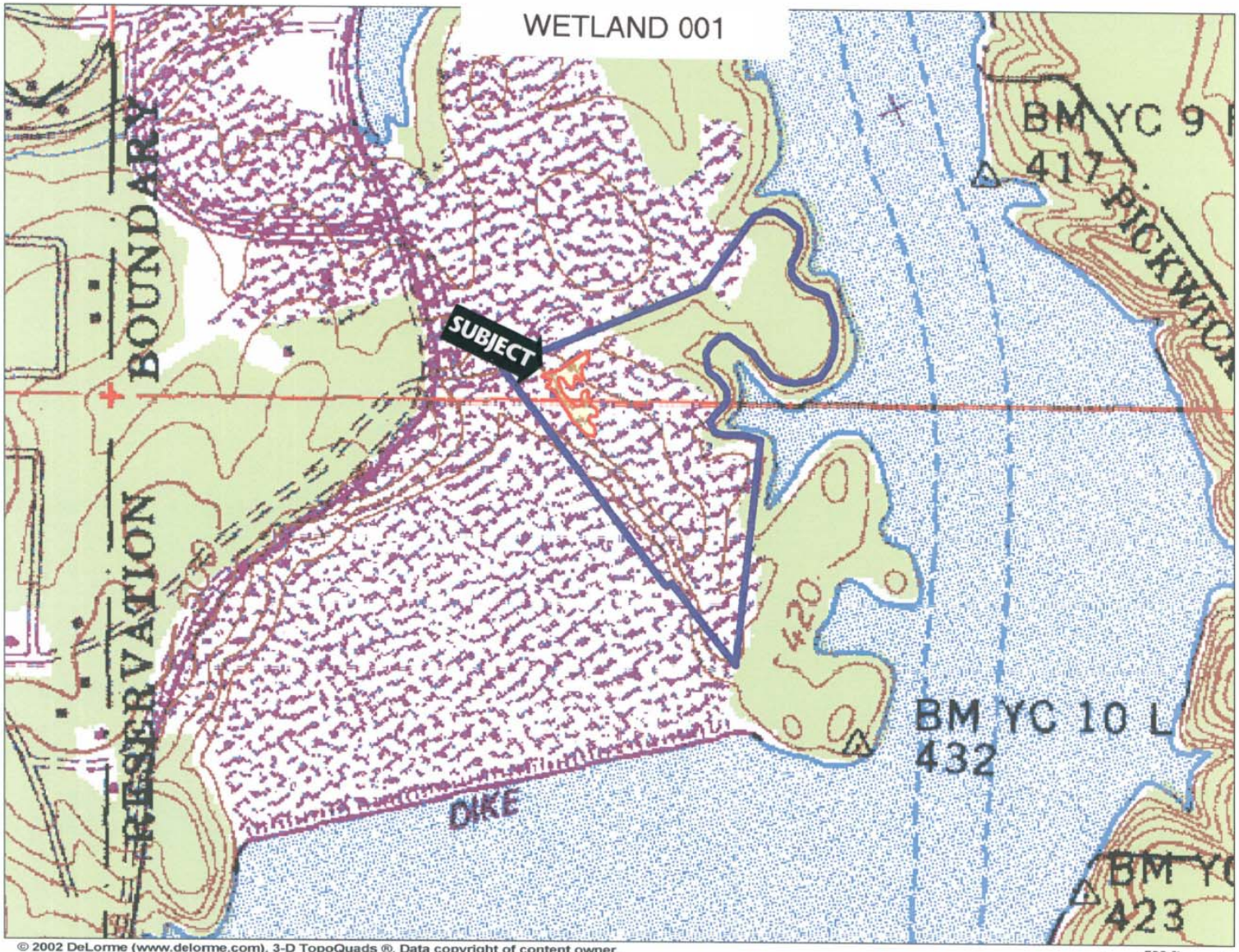
sketch (include north arrow, relationship with other surface waters, vegetation zones, etc.)



Comments, Narrative Discussion, Justification of Category Changes

This wetland occurs in an area that has been disturbed previously for the excavation of shale and occurs as a shallow depressional area bounded by roadbeds to the north and west. A small concrete slab or chunk occurs amid a stand of cattails in the north portion of the wetland. The south portion is occupied be Alligatorweed with emergen rush and sedge in 4-6" standing water. Primary source of water appears to be precipitation. The wetland boundaries are strongly evident through 1-2' elevation change, and thick presence of non-hydric vegetation dominated by Chinese lespedeza and partridge pea.

Final score : 25 Category 1



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Scale: 1 : 6,400 Map Rotation: 0° Magnetic Declination: 0.9°W

500 ft

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands - Unrestricted.	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	
	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	12	
	Metric 4. Habitat	8	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	2	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	25	Category based on score breakpoints 1

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score *less* than the Category 2 scoring threshold (*excluding* gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO 1.04 AC	Is quantitative rating score *greater* than the Category 2 scoring threshold (*including* any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES 1 Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the *"gray zone"* for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit *moderate OR superior* hydrologic OR habitat, OR recreational functions AND the wetland was *not* categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category

Choose one	Category 1	Category 2	Category 3

February 23, 2010

Ms. Chellye Campbell
Tennessee Valley Authority
P.O. Box 1010
SB1H-M
Muscle Shoals, AL 35662-1010

RE: Site / Facility Design Considerations
Dennen Steel Facility
Yellow Creek State Inland Port
Tishomingo County, MS

Dear Chellye,

Chris Berryman requested I provide you with engineering information regarding the proposed site and facility design, particularly in relation to the area that has been preliminarily identified and delineated as a wetlands.

Due to the site topography, the proposed operations by Dennen Steel, and the type of deliveries that will be made to the facility, we are squeezed on all sides. I have attached a pdf file developed from the proposed property plat showing the current initial and future facility configuration. In addition, I have shown an example with the facility shifted 30' to the south. Based on this sketch, the following comments are provided.

- Current plan is to construct the employee parking area as shown on the north side of the facility, at the delineated location.
- Avoiding the delineated area would require moving employee parking to the sides of the building. This would mix employee traffic with plant traffic (material shipping and coil deliveries), which is not ideal and could be unsafe.
- Site layout is being performed for both the initial proposed facility (50,000 SF) and a future expansion of 50,000 SF.
- Avoiding the delineated area would require shifting the building to the south for adequate clearance. As shown on the attached drawing, this would put the final expanded facility to within approximately 22' of the 423 contour, which is the proposed property line.
- Based on preliminary design, the finished floor of the facility will be at elev. 450, or 27' above the property line on the south side of the facility (primarily due to the existing bedrock elevation). Due to the close proximity of the property line, this would require the southwest corner of the building and the southwest building access road to be supported in part by retaining walls.
- Retaining walls on the southwest corner would be unfeasible from a cost standpoint. In addition, there would be a concern over stability due to the fact that the facility will house two 25 ton overhead cranes, and potential differential settlement could induce other structural concerns.

- Retaining walls on the southwest building access could impose additional safety concerns during operations. This could in part be alleviated in part by routing deliveries from the west to east, but this restricts the flexibility inherit in the current proposed layout.

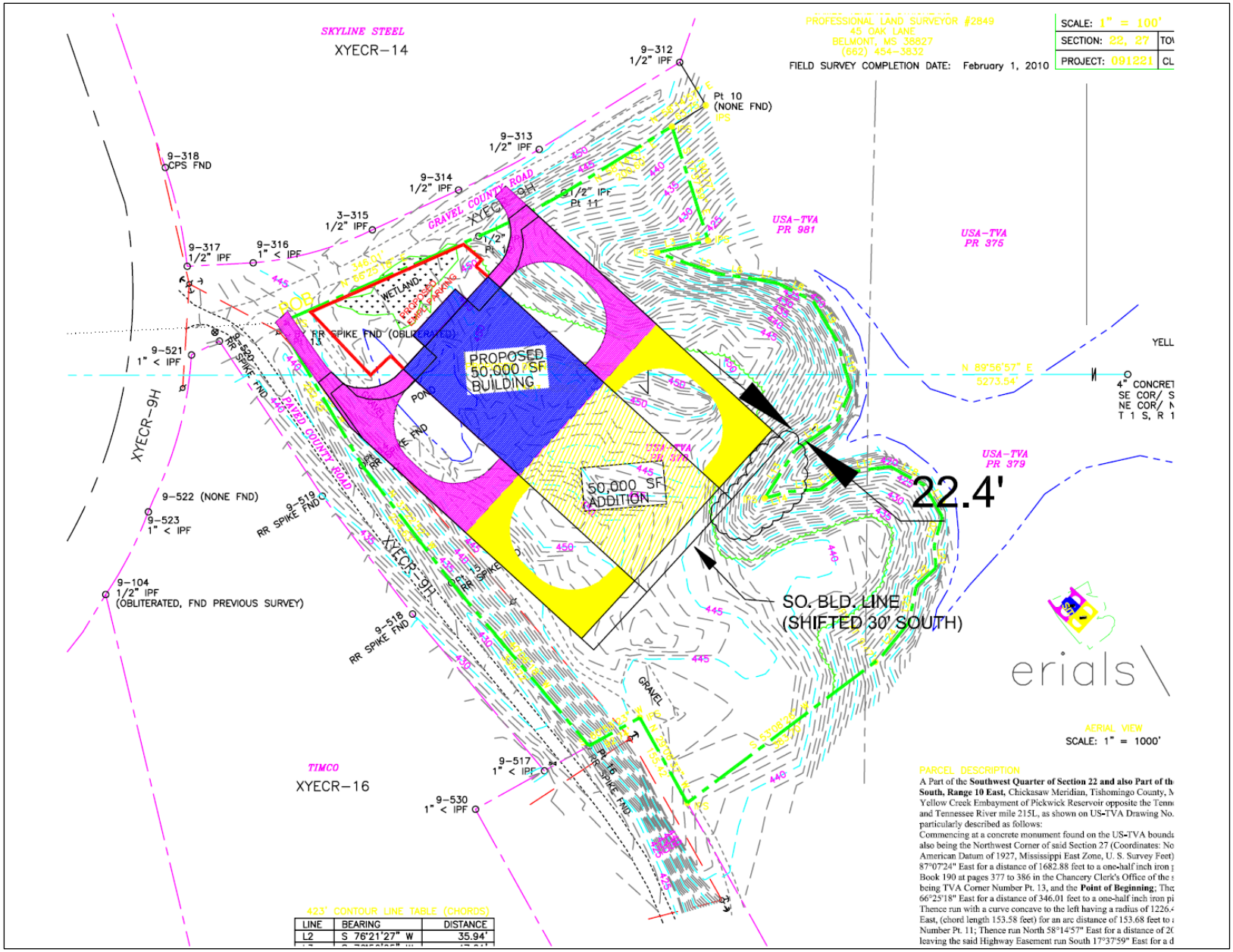
All of these considerations add up to additional costs and limitations on the facility. At this point, all costs have been identified to the best of our ability, and funding sources developed. Modifications at this point could preclude the suitability of the site for the proposed operation.

If you need more information please do not hesitate to contact me at 662-423-9104.

Sincerely,

Kirby G. McRae, PE, PLS

Enclosure



SITE LOCATION - WETLAND CONSIDERATION DRAWING – PRACTICABLE DETERMINATION

Wetlands – Only Practicable Alternative Finding

This section describes the project's wetlands impacts and whether there is a practicable alternative that avoids the wetland impacts.

Basis for Finding

Presidential Executive Order (EO) 11990, Protection of Wetlands, requires federal agencies to avoid to the extent practicable long- and short-term adverse impacts associated with the destruction or modification of wetlands. More specifically, the EO directs federal agencies to avoid new construction in wetlands unless there is no practicable alternative, and where wetlands cannot be avoided, the proposed action must include all practicable measures to minimize harm to the wetlands. The following information sets forth the basis for a finding of no practicable alternative to wetland impacts associated with the recommended alternative.

Determination of No Practicable Alternative

The Action Alternative was selected as the most practicable alternative based on engineering and environmental evaluation and agency coordination. The applicant has considered other property sites and changes in facility designs within the subject property to determine if it would be practicable to avoid the wetland. A description of other facility placement considerations and a map are included in this attachment. Modifications to the proposed site plan could preclude the suitability of the site for the proposed construction and operation of the manufacturing site. Therefore, the Action Alternative is the most practicable alternative, and impacts to this wetland are unavoidable due to siting requirements of the proposed facility.

Wetland W001is the only wetland in the project area; therefore, the proposed action does not include measures to minimize harm to wetlands because there are no other wetlands.

Wetland Finding

Based on the above considerations in accordance with EO 11990, TVA has determined that there is no practicable alternative to the proposed fill and construction in the wetland.