



MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY

LARGE CONSTRUCTION NOTICE OF INTENT (LCNOI) FOR COVERAGE UNDER THE LARGE CONSTRUCTION STORM WATER GENERAL NPDES PERMIT

INSTRUCTIONS

The Large Construction Notice of Intent (LCNOI) is for coverage under the Large Construction General Permit for land disturbing activities of five (5) acres or greater; or for land disturbing activities, which are part of a larger common plan of development or sale that are initially less than five (5) acres but will ultimately disturb five (5) or more acres. Applicant must be the owner or operator. For construction activities, the operator is typically the prime contractor. The owner(s) of the property and the prime contractor associated with regulated construction activity on the property have joint and severable responsibility for compliance with the Large Construction Storm Water General Permit MSR10.

If the company seeking coverage is a corporation, a limited liability company, a partnership, or a business trust, attach proof of its registration with the Mississippi Secretary of State and/or its Certificate of Good Standing. This registration or Certificate of Good Standing must be dated within twelve (12) months of the date of the submittal of this coverage form. Coverage will be issued in the company name as it is registered with the Mississippi Secretary of State.

Completed LCNOIs should be filed at least thirty (30) days prior to the commencement of construction. Discharge of storm water from large construction activities without written notification of coverage is a violation of state law.

Submittals with this LCNOI must include:

- A site-specific Storm Water Pollution Prevention Plan (SWPPP) developed in accordance with ACT5 of the General Permit
- A detailed site-specific scaled drawing showing the property layout and the features outlined in ACT5 of the General Permit
- A United States Geological Survey (USGS) quadrangle map or photocopy, extending at least one-half mile beyond the facility property boundaries with the site location and outfalls outlined or highlighted. The name of the quadrangle map must be shown on all copies. Quadrangle maps can be obtained from the MDEQ, Office of Geology at 601-961-5523.

Additional submittals may include the following, if applicable:

- Appropriate Section 404 documentation from U.S. Army Corps of Engineers
- Appropriate documentation concerning future disposal of sanitary sewage and sewage collection system construction
- Appropriate documentation from the MDEQ Office of Land & Water concerning dam construction and low flow requirements
- Approval from County Utility Authority in Hancock, Harrison, Jackson, Pearl River and Stone Counties

ALL QUESTIONS MUST BE ANSWERED (Answer "NA" if the question is not applicable)

MSR10 _____

(NUMBER TO BE ASSIGNED BY STATE)

APPLICANT IS THE: OWNER PRIME CONTRACTOR

OWNER CONTACT INFORMATION

OWNER CONTACT PERSON: _____

OWNER COMPANY LEGAL NAME: _____

OWNER STREET OR P.O. BOX: _____

OWNER CITY: _____ STATE: _____ ZIP: _____

OWNER PHONE #: (____) _____ OWNER EMAIL: _____

PRIME CONTRACTOR CONTACT INFORMATION

PRIME CONTRACTOR CONTACT PERSON: _____

PRIME CONTRACTOR COMPANY LEGAL NAME: _____

PRIME CONTRACTOR STREET OR P.O. BOX: _____

PRIME CONTRACTOR CITY: _____ STATE: _____ ZIP: _____

PRIME CONTRACTOR PHONE #: (____) _____ PRIME CONTRACTOR EMAIL: _____

FACILITY SITE INFORMATION

FACILITY SITE NAME: _____

FACILITY SITE ADDRESS (If the physical address is not available, please indicate the nearest named road. For linear projects indicate the beginning of the project and identify all counties the project traverses.)

STREET: _____

CITY: _____ STATE: _____ COUNTY: _____ ZIP: _____

FACILITY SITE TRIBAL LAND ID (N/A If not applicable): _____

LATITUDE: ____ degrees ____ minutes ____ seconds LONGITUDE: ____ degrees ____ minutes ____ seconds

LAT & LONG DATA SOURCE (GPS (Please GPS Project Entrance/Start Point) or Map Interpolation): _____

TOTAL ACREAGE THAT WILL BE DISTURBED ¹: _____

IS THIS PART OF A LARGER COMMON PLAN OF DEVELOPMENT? YES NO

IF YES, NAME OF LARGER COMMON PLAN OF DEVELOPMENT: _____
AND PERMIT COVERAGE NUMBER: MSR10 _____

ESTIMATED CONSTRUCTION PROJECT START DATE: _____
YYYY-MM-DD

ESTIMATED CONSTRUCTION PROJECT END DATE: _____
YYYY-MM-DD

DESCRIPTION OF CONSTRUCTION ACTIVITY: _____

PROPOSED DESCRIPTION OF PROPERTY USE AFTER CONSTRUCTION HAS BEEN COMPLETED: _____

SIC Code ____ NAICS Code _____

NEAREST NAMED RECEIVING STREAM: _____

IS RECEIVING STREAM ON MISSISSIPPI'S 303(d) LIST OF IMPAIRED WATER BODIES? (The 303(d) list of impaired waters and TMDL stream segments may be found on MDEQ's web site: http://www.deq.state.ms.us/MDEQ.nsf/page/TWB_Total_Maximum_Daily_Load_Section) YES NO

HAS A TMDL BEEN ESTABLISHED FOR THE RECEIVING STREAM SEGMENT? YES NO

ARE THERE RECREATIONAL STREAMS, PRIVATE/PUBLIC PONDS OR LAKES WITHIN ½ MILE DOWNSTREAM OF PROJECT BOUNDARY THAT MAY BE IMPACTED BY THE CONSTRUCTION ACTIVITY? YES NO

EXISTING DATA DESCRIBING THE SOIL (for linear projects please describe in SWPPP):

WILL FLOCCULANTS BE USED TO TREAT TURBIDITY IN STORM WATER? YES NO

IF YES, INDICATE THE TYPE OF FLOCCULANT. ANIONIC POLYACRYLAMIDE (PAM)
 OTHER _____

IF YES, DOES THE SWPPP DESCRIBE THE METHOD OF INTRODUCTION, THE LOCATION OF INTRODUCTION AND THE LOCATION OF WHERE FLOCCULATED MATERIAL WILL SETTLE? YES NO

¹Acreage for subdivision development includes areas disturbed by construction of roads, utilities and drainage. Additionally, a housesite of at least 10,000 ft² per lot (entire lot, if smaller) shall be included in calculating acreage disturbed.

DOCUMENTATION OF COMPLIANCE WITH OTHER REGULATIONS/REQUIREMENTS
COVERAGE UNDER THIS PERMIT WILL NOT BE GRANTED UNTIL ALL OTHER REQUIRED
MDEQ PERMITS AND APPROVALS ARE SATISFACTORILY ADDRESSED

IS LCNOI FOR A FACILITY THAT WILL REQUIRE OTHER PERMITS? YES NO

IF YES, CHECK ALL THAT APPLY: AIR HAZARDOUS WASTE PRETREATMENT
 WATER STATE OPERATING INDIVIDUAL NPDES OTHER: _____

IS THE PROJECT REROUTING, FILLING OR CROSSING A WATER CONVEYANCE OF ANY KIND? (If yes, contact the U.S. Army Corps of Engineers' Regulatory Branch for permitting requirements.) YES NO

IF THE PROJECT REQUIRES A CORPS OF ENGINEER SECTION 404 PERMIT, PROVIDE APPROPRIATE DOCUMENTATION THAT:

- The project has been approved by individual permit, or
- The work will be covered by a nationwide permit and NO NOTIFICATION to the Corps is required, or
- The work will be covered by a nationwide or general permit and NOTIFICATION to the Corps is required

Covered by Nationwide permit 12
MVM - 2019 -315

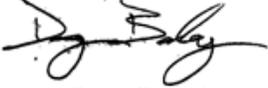
IS A LAKE REQUIRING THE CONSTRUCTION OF A DAM BEING PROPOSED? YES NO
(If yes, provide appropriate approval documentation from MDEQ Office of Land and Water, Dam Safety.)

IF THE PROJECT IS A SUBDIVISION OR A COMMERCIAL DEVELOPMENT, HOW WILL SANITARY SEWAGE BE DISPOSED? Check one of the following and attach the pertinent documents.

- Existing Municipal or Commercial System. Please attach plans and specifications for the collection system and the associated "Information Regarding Proposed Wastewater Projects" form or approval from County Utility Authority in Hancock, Harrison, Jackson, Pearl River and Stone Counties. If the plans and specifications can not be provided at the time of LCNOI submittal, MDEQ will accept written acknowledgement from official(s) responsible for wastewater collection and treatment that the flows generated from the proposed project can and will be transported and treated properly. The letter must include the estimated flow.
- Collection and Treatment System will be Constructed. Please attach a copy of the cover of the NPDES discharge permit from MDEQ or indicate the date the application was submitted to MDEQ (Date: _____.)
- Individual Onsite Wastewater Disposal Systems for Subdivisions Less than 35 Lots. Please attach a copy of the Letter of General Acceptance from the Mississippi State Department of Health or certification from a registered professional engineer that the platted lots should support individual onsite wastewater disposal systems.
- Individual Onsite Wastewater Disposal Systems for Subdivisions Greater than 35 Lots. A determination of the feasibility of installing a central sewage collection and treatment system must be made by MDEQ. A copy of the response from MDEQ concerning the feasibility study must be attached. If a central collection and wastewater system is not feasible, then please attach a copy of the Letter of General Acceptance from the State Department of Health or certification from a registered professional engineer that the platted lots should support individual onsite wastewater disposal systems.

INDICATE ANY LOCAL STORM WATER ORDINANCE WITH WHICH THE PROJECT MUST COMPLY:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



7/13/2020

Signature of Applicant¹ (owner or prime contractor)

Date Signed

Printed Name¹

Title

¹This application shall be signed as follows:

- For a corporation, by a responsible corporate officer.
- For a partnership, by a general partner.
- For a sole proprietorship, by the proprietor.

For a municipal, state or other public facility, by principal executive officer, mayor, or ranking elected official

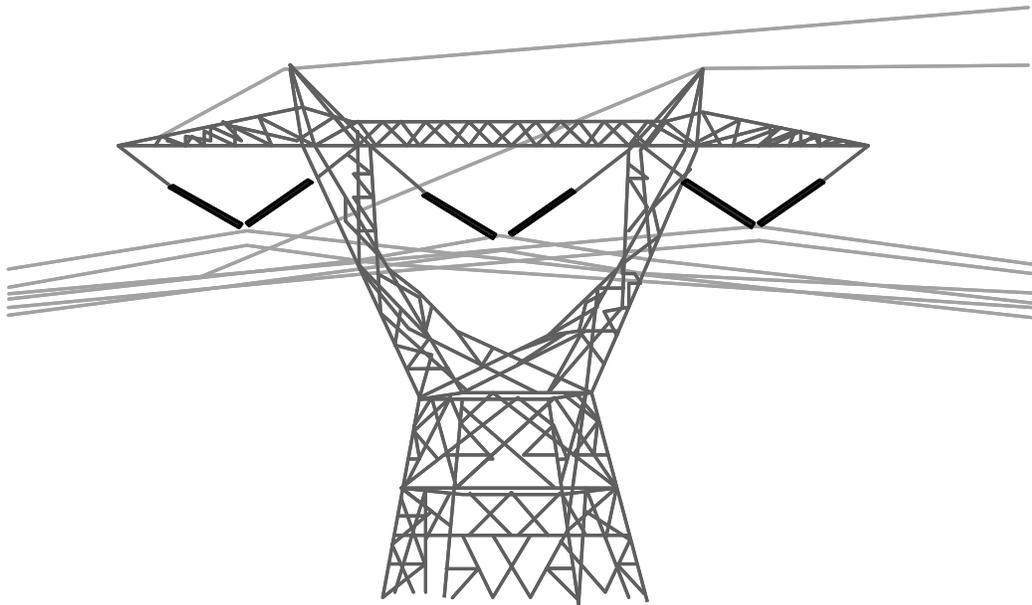
Please submit the LCNOI form to:

**Chief, Environmental Permits Division
MS Department of Environmental Quality, Office of Pollution Control
P.O. Box 2261
Jackson, Mississippi 39225**

Storm Water Pollution Prevention Plan SWPPP

TVA Chickasaw Trails 161-KV Transmission Line Loop

(W.O. 31PZE)



Tennessee Valley Authority

07/06/2020

Revision 0

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List of Abbreviations

BMP	Best Management Practices
MDEQ	Mississippi Department of Environmental Quality
PES	Project Environmental Support
ROW	Right of Way
SMZ	Streamside Management Zone
SWPPP	Storm Water Pollution Prevention Plan
TVA	Tennessee Valley Authority
WWC	Wet Weather Conveyance

1.0 Description of the Nature of the Construction Activity

This TVA project will support economic development at the Chickasaw Trails Industrial Park (IP) in Olive Branch, MS, and increase transmission system resiliency in the Fayette and Marshall county areas. The area is primarily served out of the Freeport and Cordova 500-kV banks. Current capacity to serve load at the IP is 20 MW. The average new industrial inquiry TVA has received is for 60 MW. Serving this load without upgrading the system would result in multiple low voltage and thermal violations. The new Diffie-Chickasaw Transmission Line and Diffie and Chickasaw IP Switching Stations would serve to increase the resiliency of the system by removing constraints on operations and maintenance of losing either the Freeport or Cordova feeds while one is out for maintenance. The project would also increase the flexibility of renewable energy interconnections and increase customer reliability in the area by removing customers from radial feeds.

A 2.6 mile section of the de-energized Cordova-Holly Springs 161-kV TL will be rebuilt as double circuit, utilizing existing ROW, with the new lines and OPGW to be looped into the Chickasaw Trails IP Switching Station. These new lines will be renamed as Holly Springs - Chickasaw Trails IP SS, and Chickasaw Trails IP SS-Miller 161-kV.

Access roads suitable for construction equipment will be constructed at points strategic to structure locations. When feasible, existing roads will be used and improved with minor grading. Construction exits will be installed if needed where access points intersect paved roads. An existing equipment laydown yard for the project will be near the site.

2.0 Project Description

The transmission line will have a ROW 100 feet in width. Access to the structures will be primarily from the ROW; however limited off ROW access may be required. The 2.6 mile linear project starts near Gateway Global Drive Byhalia, MS 38611 (34.97558596, -89.6153319) and ends near 321 E Cox Road Byhalia, MS 38611 (34.94086531, -89.60807338). The transmission line project is indicated on the vicinity maps in the appendix.

2.1 Major Soil Disturbing Activities

This transmission line project is to be performed in three stages: (1) clearing of the ROW, access road construction, BMP installation; (2) line construction; and (3) site restoration.

The clearing contractor will clear wooded portions of the ROW, bush-hog other areas as necessary, install BMPs and cut any danger trees located along the ROW. Construction crews will then spot the material at the site, erect transmission line structures, string & sag conductor, and clip in the conductor. The clearing contractor will then return to perform final restoration of the site. Areas disturbed by clearing but not expected to be disturbed further will be restored during initial clearing.

2.2 Sequence of Major Events

Table 1 Estimated Project Schedule

Activity	Start Date	End Date
Clearing and installation of BMPs	08/07/20	10/30/20
Transmission Line Construction	09/04/20	12/31/20
Site Restoration	09/15/20	05/31/21

2.3 Estimate of Site Area and Disturbed Area

The approximate area for the project is 31.64 acres. The disturbed area for the project is shown in Table 2 below.

Table 2 Disturbed Area

Activity Generating Disturbance	Area (ac)
Access Roads	2.24
Structure Erection	7.39
Clearing	3.45
Total Disturbed Area	13.08

2.4 Existing Site Conditions

The project area is an existing transmission line ROW. The terrain consists of pasture/cropland lands and suburban areas.

2.5 Pre/post Construction Runoff Coefficient

The increase in impervious area associated with this project will be negligible. Natural ground cover on the right-of-way will remain or be replaced with grasses or other vegetation. Because the ROW will consist of vegetative cover after construction and any contour changes will be insignificant, the runoff coefficients and flow patterns will remain essentially the same.

2.6 Receiving Waters and Wetlands

2.6.1 Receiving Waters

This project is located in Marshall County, Mississippi and potentially affects the 8-digit HUC watershed Coldwater. According to a field survey, a total of five (5) aquatic features were located within the proposed project footprint, which includes one (1) ephemeral stream/wet weather conveyance, one (1) farm pond, one (1) intermittent stream and two (2) perennial streams. The streams are Lee Creek and Nonconnah Creek. None of the streams in the project area or in the vicinity of the project are listed on Mississippi's 303(d) list.

2.6.2 Wetlands

A total of six wetlands were identified and mapped along the 2.6 mile transmission route.

The total wetland impact in the proposed transmission line ROW is 3.14 acres. The amount of forested wetland to be cleared is 2.58 acres. The transmission line route avoids wetland impacts to the extent practicable.

TVA will utilize a variety of techniques and BMPs to minimize wetland disturbance during construction. These can include using a feller-buncher, low ground-pressure equipment and/or mats to reduce soil compaction and minimize rutting to less than 12 inches for any and all work necessary within the delineated wetland boundaries. They also can include limiting heavy vehicular equipment to narrowed access corridors along the ROW for structure and conductor placement.

2.7 Soil Types

The USDA National Resources Conservation Service Soil Maps and SSURGO data for Marshall County were used to determine the soil types covered by the project. The results are shown in the appendix. Soils within the bounds of this project have erodibility factors (K_f) ranging from 0.43 to 0.55. The ground disturbance on this project will be minimized as much as possible and BMP's will remain in place until permanent vegetation is reestablished on disturbed areas.

2.8 Site Maps

Topographic maps are included in the appendix. Because no major grading activities will occur, drainage patterns and slopes will remain essentially the same as those shown on the topographic map.

2.9 Discharge Associated With Industrial Activity Excluding Construction Stormwater

TVA will conduct no industrial activities other than construction at the site.

2.10 Buffer Zones

TVA typical stream minimum buffer widths for water bodies are shown in Table 4 below. Additional buffers will be added where necessitated by topography. Ground disturbance will be minimized within buffer zones. With proper implementation of SMZ buffers and BMPs, as outlined in [A Guide for Environmental Protection and Best Management Practices for Tennessee Valley Authority Construction and Maintenance Activities](#), no impacts would occur as a result of the proposed transmission line construction and operation. Buffer zones may be adjusted in the field based on property owner request, existing land use, topography, or obstacles including but not limited to fences, transmission structures, road ways, etc. In areas where structures are placed in wetlands temporary sediment barriers will be used to prevent

sediment from leaving the vicinity of the structure.

Table 3 TVA Standard Streamside Management Zones

SMZ Category	% Slope of Adjacent Lands				
	1-10	11-20	21-30	31-40	41+
	SMZ Width each side (ft.)				
A - Standard	50	70	90	110	130
B - Important	70	90	110	130	150
C - Unique	90	110	130	150	170
(SMZ width increases 20 ft. for each 10% increase in slope)					

2.11 Tennessee Valley Authority Project Contacts

Table 4 Project Contacts

Name and Title	Address	Phone Number
Robert Wilson, CPESC® Permit Writer	1101 Market Street, MR 4G Chattanooga, TN 37402	(423) 751-6402 (office)
Pat Hjelm Environmental Technician	1101 Market Street, MR 4K Chattanooga, TN 37402	(256) 309-1838
Eric Pigg ROW Forrester		(662) 242-1289
TBD Clearing Contractor		
Nick McElvain Project Manager	1101 Market Street, MR 3F Chattanooga, TN 37402	(423)751-8083

3.0 Erosion and Sediment Control Plan

Sediment control structures and best management practices (BMPs) shall be implemented where water exposed to disturbed areas shall leave the construction site as shown in the appendix. The Environmental Technician shall consult with the PES to determine the location of sediment control structures and BMPs considering site specific topography, existing vegetation, and type of construction activity. Erosion control structures and BMPs shall be utilized to minimize erosion and sediment escape from all disturbed areas of the construction site. Any changes to the proposed location of BMPs shall be "red lined" in the SWPPP.

Unless significant re-grading of access roads is necessary, perimeter BMPs will not be required for actions that require only access to the structures described herein. Such actions include but are not limited to adding grillage surcharge, adjusting the conductor position, or hanging stringing blocks for re-conductor operations.

The operator in control of their portion of the project is responsible for installing and maintaining erosion and sediment controls on this project during the access road construction phase.

3.1 Erosion and Sediment Controls

No roads will be graded by the contractor without the permission of the designated TVA representative. Grading of roads will be minimized; but when necessary, water bars and berms will be utilized to control erosion caused by runoff. Runoff will be diverted onto stabilized areas, or other devices will be used to control erosion at the outfall location.

Sediment barriers will be installed on slopes and between areas of soil disturbance and any adjacent streams, wetlands, and storm water conveyances. The type and location of BMP that do not require formal design will be determined in conjunction with the TVA field representative and at a minimum will be consistent with the guidelines contained in the Planning and Design Manual for the Control of Erosion, Sediment and Storm Water or other recognized manual of design.

Off-site vehicle tracking of sediments and the generation of fugitive dust will be minimized. Appropriate measures will be taken to minimize the creation of fugitive dust including the use of water or gravel and limitations on the type of equipment, allowable speed, and routes utilized. On access road entrances that intersect public highways, gravel, wooden mats, or other means will be used on the first 50 feet of entrance to minimize the amount of sediment being tracked on to the public road. Any sediment that is tracked onto roadways will be cleaned up on a daily basis.

Areas of disturbance will initiate stabilization whenever any clearing, grading, grubbing, excavating or other land disturbing activities have temporarily or permanently ceased on any portion of the site and will not resume for a period of fourteen (14) calendar days or more. The appropriate temporary or permanent vegetative practices shall be initiated immediately. For purposes of this permit, "immediately" is interpreted to mean no later than the next work day. Either temporary or permanent cover will be established on disturbed areas depending on the time of year and whether or not construction activities will occur in the area. Suggested seed rates and mixtures are contained in the Guide for Environmental Protection and Best Management Practices for Tennessee Valley Authority Construction and Maintenance Activities.

3.1.1 Basis of Design

The erosion and sediment controls shall be properly designed and maintained to retain sediment on-site for all rainfall events up to and including a 2-year, 24 hour rainfall event except in the case of Impaired or Exceptional waters where a 5-year, 24 hour rainfall event will be used.

All control measures must be properly selected, installed, and maintained in accordance with A Guide for Environmental Protection and Best Management Practices for Tennessee Valley

Authority Construction and Maintenance Activities and good engineering practices and at a minimum shall be consistent with the guidelines contained in the Planning and Design Manual for the Control of Erosion, Sediment and Storm Water or other recognized manual of design.

If sediment escapes the construction site, off-site accumulations of sediment that have not reached a stream must be removed at a frequency sufficient to minimize offsite impacts. Any sediment removed from the project will be spread on the ROW and revegetated along with other disturbed areas.

3.1.2 Operational Construction Practices

See the appendix for BMP Details.

Construction Exits: Off-site vehicle tracking of sediments shall be minimized. Angular gravel construction exits shall be installed at all points of egress along the project route. Construction exits are designed to reduce or eliminate the transport of mud from the construction area onto public rights-of-way by motor vehicles or runoff. Any sediment that is tracked onto a public road shall be removed with a street sweeper or similar equipment on a daily basis, spread on the ROW, and revegetated along with the other areas of disturbance. Additional stone may have to be added periodically to gravel construction entrance/exits to maintain proper functioning of the pad.

Dust Control: The generation of fugitive dust shall be minimized. Appropriate measures shall be taken to minimize the creation of fugitive dust including the use of water trucks or gravel and limitations on the type of equipment, allowable speed, and routes utilized.

Sediment Barriers: Sediment barriers shall be installed on slopes and between areas of soil disturbance and any adjacent streams, wetlands, and storm water conveyances. Silt fence or other sediment barriers shall be installed down gradient from disturbed areas where sheet flow would leave the construction site. Sheet flow from this project is not anticipated to leave the construction site (existing 150 foot vegetated area of our right-of-way). Sediment trapped behind sediment barriers should be removed when 1/3 the height of the barrier has been reached. In no case shall accumulated sediment be allowed to reach 1/2 the height of the barrier.

Access Roads: Established access roads prevent excessive soil disturbance from vehicle and equipment traffic. For this project, temporary and/or permanent access roads shall be constructed. No roads shall be graded by the contractor without the permission of the designated TVA representative. In areas where access roads must cross wetlands, low ground pressure equipment or matting shall be used. All permanent and temporary crossings of water bodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of aquatic species. Any grading of construction roads shall be minimized; but when necessary, water bars and berms shall be utilized to control erosion caused by runoff. Runoff water shall be diverted onto stabilized areas, or other devices shall be

used to control erosion at the outfall location.

Temporary Fill in Wetlands: Temporary fills in wetlands such as those used for mulch berms or culvert stabilization must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

Filter Bags: Muddy water that needs to be pumped from a work area shall be directed to a filter bag prior to its discharge. This will act as a dewatering structure as well as reduce the energy from pumped water. The discharge from dewatering structures shall be directed by overland flow through a sediment barrier or across vegetation to remove additional sediment.

Sediment Basins: On TVA transmission line ROW, TVA only owns the right to construct, operate, and maintain transmission line facilities. Therefore, TVA has no ability to construct sediment basins without special arrangements with the property owners. Because of the nature of this project, no sediment storage ponds are planned.

Topsoiling: Topsoil that needs to be removed and stockpiled onsite and shall be protected with appropriate BMPs. It shall be used as needed to cover exposed areas prior to temporary or permanent stabilization.

Soil Stockpiles: Material that is to be stockpiled and re-graded within the same work day does not need perimeter BMPs. Stockpiled material that is to be re-graded within 7 days shall be surrounded with a sediment barrier. Material that is to be stockpiled for more than 7 days shall be surrounded with a sediment barrier and shall be temporarily stabilized per Section 3.2.3.

3.2 Post-Construction Restoration and Stabilization Procedures

3.2.1 Post Construction Site Restoration

In some cases TVA owns the rights to construct, operate, and maintain electric transmission facilities on our right-of-way. As such, TVA must comply with the property owner's wishes for the vegetative practices employed. In other cases, TVA owns the property and can stabilize the construction area with more flexibility. Generally, TVA will re-vegetate disturbed areas with like kind vegetation. In previously undisturbed areas, on TVA owned land, or in cases where the property owner has no preference as to what species are planted TVA will use the restoration practices described below.

Any remaining debris from construction will be removed from the site and properly recycled or disposed.

Vegetative Practices shall be designed to preserve existing vegetation where feasible and initiate vegetative stabilization measures after land disturbing activities. Such practices may include, but not limited to, temporary seeding, permanent seeding, mulching, sod stabilization, vegetative buffer strips, tree protection and topsoil preservation. Soil stabilization-vegetative

stabilization measures must be initiated whenever any clearing, grading, grubbing, excavating or other land disturbing activities have temporarily or permanently ceased on any portion of the site and will not resume for a period of fourteen (14) calendar days or more. The appropriate temporary or permanent vegetative practices shall be initiated immediately.

3.2.2 Restoration in Areas of Special Concern

The Tennessee Valley is home to many unique habitats that harbor species plant communities found nowhere else in the world. Due to their sensitive nature, conventional re-vegetation practices may not be appropriate. In these areas of special concern or where threatened or endangered species are denoted, TVA biological staff will be consulted prior to establishing a planting plan.

3.2.3 Temporary Stabilization

Temporary stabilization may be achieved through seeding with annual vegetation as shown below or by using straw mulch. Straw may be applied by hand for small areas or with a straw blower for larger areas. Temporary straw coverage will be achieved at 70% of the disturbed area. Permanent stabilization with perennial vegetation will replace any temporary measures as soon as practicable.

3.2.4 Sampling and Amending Soils

Sampling for soil amendments such as lime or fertilizers will be taken where subsoil is exposed or where the top soil is thin or poor. Any topsoil or fill material brought onsite will be sampled. Samples should be taken as soon as practicable after clearing and grading are complete.

Sampling Guidelines:

If different soil types exist on the site, separate samples of each type will be collected. If the soils are uniform throughout the site composite sampling will be used.

Collect a composite sample by moving through the area in a zigzag pattern, collecting sub-samples at random. Each sub-sample should be collected at a depth of 3"-6", depending on future soil use, presence or absence of topsoil, etc.

If organic matter is present on the surface, scrape away prior to sampling, usually no more than 0.25" to 0.5" of the surface layer.

Combine and thoroughly mix all sub-samples into one composite sample, using a bucket, plastic bag, or similar. Remove the amount required by the laboratory to analyze and place in a suitable container for shipment.

Applying Amendments

Based on laboratory analysis, lime will be applied such that the soil pH rises to a level suitable

for establishment of vegetation. Fertilizers will be applied as recommended by laboratory analysis.

3.2.5 Seed Selection

Table 5 below provides recommended species and seeding rates for both temporary and permanent cover. Temporary cover will be established using a mix of at least two annual species. Permanent cover will be established using a mix of at least two grasses, a legume, and a nurse crop. Actual re-vegetation practices may vary based on site conditions, seed availability, and weather. In the event that these recommendations cannot be followed, the SWPPP writer will be consulted.

Table 5 Seed Selection

	Temporary Cover			Permanent Cover				
	Pick two from below			Use two grasses, Clover, and Oats or Millet				
January	Wheat	Rye Grass	Barley	Do not attempt Permanent Cover				
	75 lb./ac	15 lb./ac	75 lb./ac					
February	Wheat	Oats	Barley	Orchard Grass	Tall Fescue	Red Top	White or Red Clover	Oats
	75 lb./ac	75 lb./ac	75 lb./ac	10 lb./ac	10 lb./ac	3 lb./ac	2 lb./ac	25 lb./ac
March	Use Permanent Cover unless re-grading is anticipated			Orchard Grass	Tall Fescue	Red Top	White or Red Clover	Oats
April				10 lb./ac	10 lb./ac	3 lb./ac	2 lb./ac	25 lb./ac
				Orchard Grass	Tall Fescue	Red Top	White or Red Clover	Oats
10 lb./ac				10 lb./ac	3 lb./ac	2 lb./ac	25 lb./ac	
May	Buckwheat	Millet	Sudan Grass	Orchard Grass	Tall Fescue	Red Top	White or Red Clover	Millet
	25 lb./ac	10 lb./ac	20 lb./ac	10 lb./ac	10 lb./ac	3 lb./ac	2 lb./ac	5 lb./ac
June	Buckwheat	Millet	Sudan Grass	Do not attempt Permanent Cover				
	25 lb./ac	10 lb./ac	20 lb./ac					
July	Buckwheat	Millet	Sudan Grass					
	25 lb./ac	10 lb./ac	20 lb./ac					
August	Buckwheat	Millet	Sudan Grass	Orchard Grass	Tall Fescue	Red Top	White or Red Clover	Millet
	25 lb./ac	10 lb./ac	20 lb./ac	10 lb./ac	10 lb./ac	3 lb./ac	2 lb./ac	5 lb./ac
September	Use Permanent Cover unless re-grading is anticipated			Orchard Grass	Tall Fescue	Red Top	White or Red Clover	Oats
				10 lb./ac	10 lb./ac	3 lb./ac	2 lb./ac	25 lb./ac
October				Orchard Grass	Tall Fescue	Red Top	White or Red Clover	Oats
				10 lb./ac	10 lb./ac	3 lb./ac	2 lb./ac	25 lb./ac
November	Wheat	Oats	Barley	Orchard Grass	Tall Fescue	Red Top	White or Red Clover	Oats
	75 lb./ac	75 lb./ac	75 lb./ac	10 lb./ac	10 lb./ac	3 lb./ac	2 lb./ac	25 lb./ac

December	Wheat	Rye Grass	Barley	Do not attempt Permanent Cover
	75 lb./ac	15 lb./ac	75 lb./ac	

3.2.6 Quality Control

The clearing contractor will provide seed mix and amendment information to the permit writer and/or the Environmental Technician upon request.

3.2.7 Permit Closure

The permit will be terminated when all land disturbing activities have been completed, temporary BMPs have been removed, and permanent vegetation uniformly covers 70% of the disturbed area. TVA will strive to close the permit near the end of the spring or fall growing season. In no case will TVA attempt permit closure after periods of prolonged drought or cold.

3.3 Field Change Documentation

Major changes to the SWPPP will be coordinated and approved in accordance with state regulations prior to implementation on the project site.

3.3.1 Minor Changes

For the purpose of this document a minor change is defined as the addition of 100 feet or less of any perimeter control BMP (e.g. silt fence, wattle, etc.), the maintenance and repair of existing BMPs, or changes in the location of perimeter control BMPs of less than 20 feet to avoid topographic features or utility facilities.

For minor SWPPP changes:

1. No notification to PES is required.
2. BMP drawings in the SWPPP shall be redlined and recorded in the SWPPP revision log located in the appendix.

3.3.2 Major Changes

All other addition, subtraction, or changing of BMPs as shown in the project SWPPP and/or changes made by TVA Transmission construction forces to the project (e.g. new access roads, design change, etc.) shall be coordinated with and approved by the PES. Any approved changes shall be documented on the revision log located in the SWPPP for the project. Additionally, the BMP drawings that are onsite should reflect the actual field conditions. These drawings can be red lined with changes by field personnel or a revised set may be provided by the PES.

In order to determine a need for additional BMPs or to discuss project changes, an onsite meeting should occur between the Environmental Technician and ROW specialist and/or Construction Technician. The location and scope of the additional work shall be determined from this meeting.

For major SWPPP changes:

1. The proposed changes shall be communicated (email or phone call) to the PES for review and approval or denial.
2. The PES shall analyze proposed changes and determine if changes are compliant with environmental regulations. Once a determination is made, the PES shall notify the Environmental Technician along with the ROW Specialist or ROW specialist and/or Construction Technician if the change is approved or denied.
3. If changes are approved, the PES shall make the necessary revision to the SWPPP which may include updating Transmission project information (e.g. access road maps). The PES in coordination with the Environmental Technician shall ensure all approved changes are documented in the SWPPP. This may include red lining BMP drawings and updating SWPPP revision log located in the appendix.
4. If the changes are approved the ROW specialist and/or Construction Technician shall coordinate the completion of the work with the resources that are available.

4.0 Maintenance/Inspection Procedures

The following is a summary of the erosion and sediment control maintenance and inspection measures that shall be implemented during construction activities. Any situation which arises and has not specifically been mentioned herein will be addressed according to the Planning and Design Manual for the Control of Erosion, Sediment and Storm Water or other recognized manual of design.

4.1 Precipitation Measurements

Precipitation measurements shall be taken using continuous recorders or daily readings of an onsite rain gauge. Additionally, TVA may utilize *Farm Logs*, a precipitation monitoring service which provides accurate, localized rainfall data.

4.2 Regular Inspections

TVA shall ensure that regular, comprehensive site and receiving water(s) inspections are conducted as often as necessary to ensure that effective BMPs are properly designed, implemented, and consistently maintained to adequately prevent any adverse impact to surface waters.

4.2.1 Operational Inspections

- Qualified personnel will inspect all disturbed areas, material storage areas, structural control measures, locations where vehicles enter or exit the site, and storm water discharge points to ensure that erosion and sediment controls are effective in preventing significant impacts to receiving waters.
- Silt fences should be inspected for tears and depth of sediment to determine if the fabric is securely attached to the fence posts and to confirm that the fence posts and silt fence bottoms are firmly in the ground.
- Temporary and permanent seeding and planting should be inspected for bare spots, washouts, and unhealthy growth.
- Access roads should be inspected to ensure that they are adequately stabilized with gravel or seed and straw as needed. Construction exits shall be inspected to ensure that they are preventing the tracking and flow of mud onto public rights-of-way.

4.2.2 Inspector Requirements

Inspections will be performed by an individual who has experience and training in construction stormwater monitoring and inspection.

4.2.3 Inspection Frequency

During land disturbing activities inspections will be conducted at least once every calendar week for a minimum of four times per month. Inspections should also occur at all controls and outfalls after rain events that produce a discharge.

4.3 BMP Deficiencies

Any inadequate control measures or control measures in disrepair shall be replaced, modified, or repaired within 24 hours of the discovery of the deficiency or as soon as site conditions allow. Deficiencies shall be recorded per TVA deficiency reporting guidelines.

4.4 Inspection Documentation

Inspections are to be documented on the forms found in the appendix. If necessary, the Project Description and pollution prevention measures described in this SWPPP must be revised as appropriate, but in no case later than 7 days after the inspection. Any changes required by these revisions shall be made no later than 14 days following the inspection. Inspection results will be documented on inspection report forms and retained onsite. Copies of inspection reports should be submitted to the project PES weekly.

5.0 Storm Water Pollution Controls

5.1 Wastes

5.1.1 Wastes Materials

Any generated solid wastes will be properly collected, stored, recycled, and/or disposed. All trash and construction debris from the site will be hauled to an approved landfill. No construction waste material will be buried on the site. Employee waste and other loose materials will be collected and properly disposed so as to prevent the release of floating materials during storm events.

5.1.2 Hazardous Waste

No hazardous waste is expected to be generated or encountered in this project. In the event that hazardous waste is encountered, the project PES will be consulted. All hazardous waste materials will be disposed of according to EPA, state and/or local regulations.

5.1.3 Sanitary Waste

Portable sanitary units will be provided for use by all workers throughout the life of the construction project. All sanitary waste will be regularly collected from the portable units by a licensed sanitary waste management contractor.

5.1.4 Concrete Waste

Concrete that is delivered to the site but remains unused shall be transported offsite by the concrete vendor. (i.e., in no case shall waste concrete be disposed of on the ground at the construction site). Concrete trucks can use properly designed and designated concrete washout BMP areas to clean their mixer chute if necessary. Once the concrete washout is full it will be dried out and disposed of as construction debris. It is not permissible to discharge concrete wash directly onto the ground or within 50 feet of streams, storm drains or areas with potential for runoff directly into streams and/or storm drains.

5.2 Product-Specific Practices

5.2.1 Petroleum Products

All on-site vehicles will be monitored for leaks and will receive regular preventative maintenance to reduce the chance of leakage. If petroleum products are present at the site, they will be stored in tightly sealed containers which are clearly labeled.

5.3 Spill Prevention

5.3.1 Equipment

Materials and equipment necessary for spill cleanup will be present on the site at all times. Equipment and materials will include but not be limited to brooms, shovels, rags, absorbent materials, and plastic or metal trash containers specifically designed for this purpose. The materials and equipment necessary for spill cleanup will be dependent upon the nature and quantity of the material stored on site.

5.3.2 Response

All spills will be stabilized immediately upon discovery and cleaned up as soon as practicable. Spills shall be documented per TVA procedures.

5.3.3 Safety

The spill area will be kept well ventilated, and personnel will wear appropriate protective clothing to prevent injury from contact with hazardous substances.

5.4 Off-Site Sediment and Dust Control

Off-site tracking of sediments and the generation of dust shall be minimized. At locations where vehicles and equipment exit the site onto paved roads, a gravel construction exit will be provided to minimize off-site tracking of sediment. Mud, dirt, or rock tracked from the site onto paved roadways will be cleaned up on a daily basis and spread on the ROW. These areas will be revegetated along with other areas of disturbance as the project progresses.

6.0 Non-Storm Water Discharge

The following items are prohibited non-stormwater discharges:

1. Wastewater from washout of concrete (unless managed by an appropriate control).
2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials.
3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.
4. Soaps or solvents used in vehicle and equipment washing.
5. Wastewater from sanitary facilities, including portable toilets.
6. Dewatering activities including discharges from dewatering of trenches and excavations unless managed by BMPs.

It is not expected that any non-storm water discharges will occur on the construction site.

7.0 Stormwater Management Controls

The project will be managed to reduce any exposed soil areas during the life of the project. Temporary vegetative cover will be used until permanent cover can be established on exposed soil areas.

8.0 Other Environmental Permits

Documentation of other environmental permits may be found in the appendix if applicable.

8.1 U.S. Army Corps of Engineers Permits

This project is in the Memphis and Vicksburg district. It is covered under nationwide 12 permit MVM – 2019- 315.

8.2 Other State Permits

No other state permits are required for this project.

8.4 Local Permits

No local permits are required for this project.

SWPPP CERTIFICATION STATEMENT

Project Name: TVA Chickasaw Trails 161-kV Loop Line Project
Work Order No. : 31PZE

Mailing Address: 1101 Market Street, MR 4B Chattanooga, TN 37402
(See site map for project location)

Location: Marshall County, MS

Owner/Operator:

Tennessee Valley Authority
1101 Market Street
Chattanooga, TN 37402
(423) 751-6402
Federal Agency

There has been no previous NPDES permit for this project.

Facility Operator Certification of SWPPP Plan

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

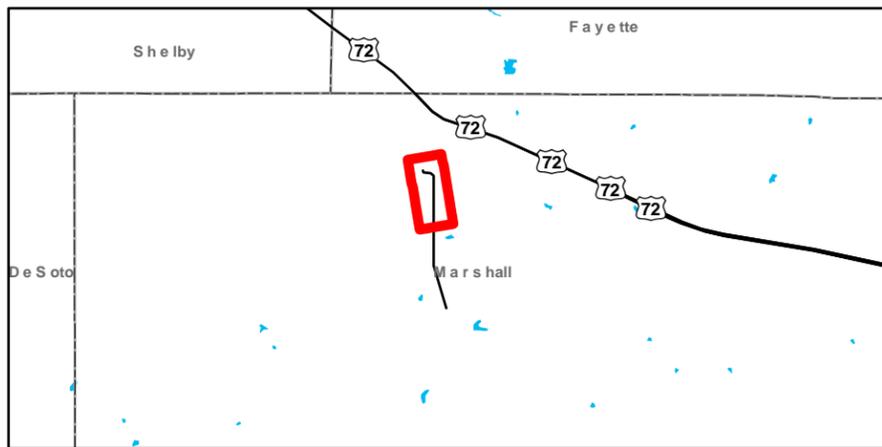
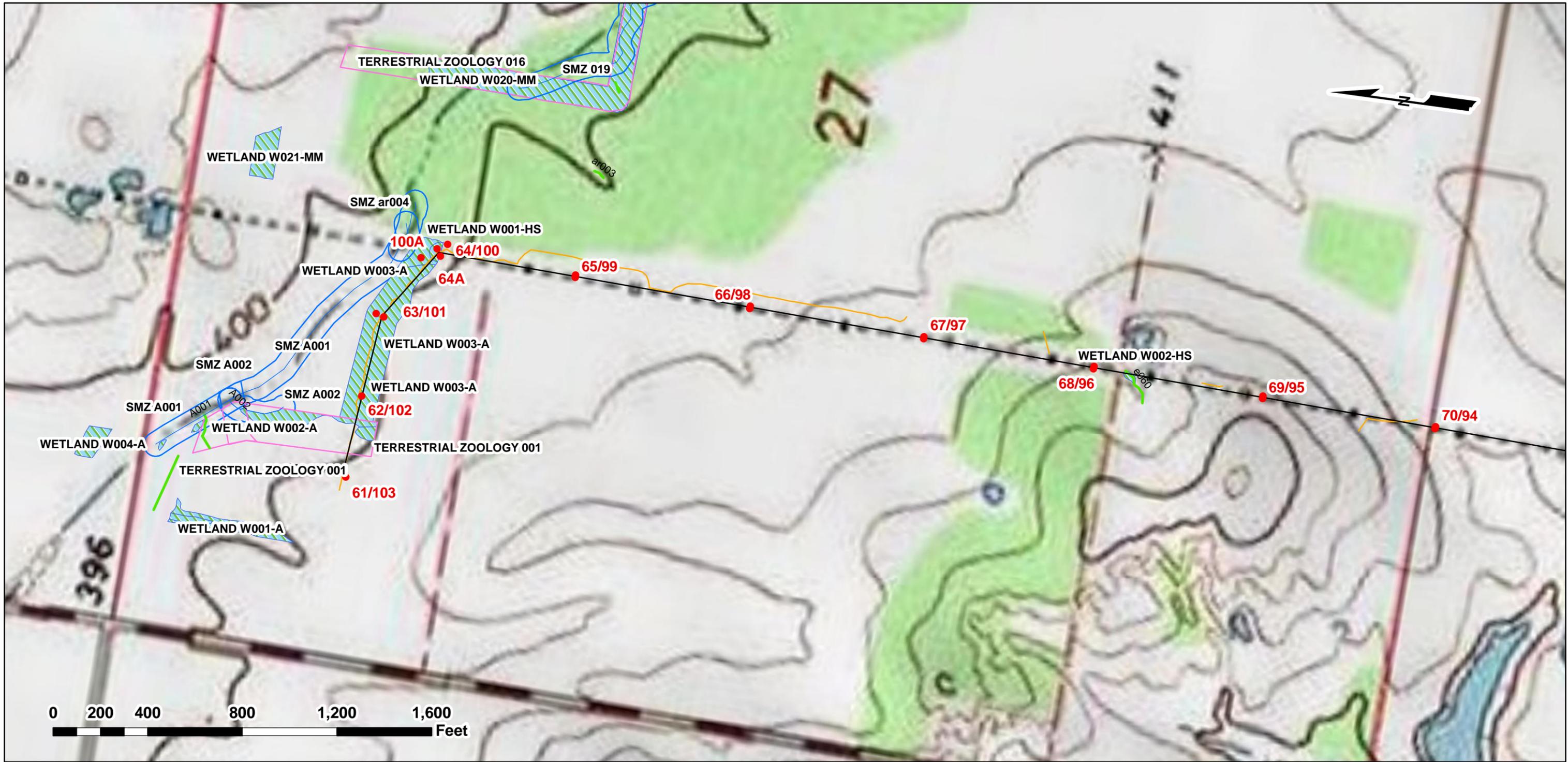


Bret Renfro
Senior Manager

7-13-20
Date

APPENDIX A

SITE MAP

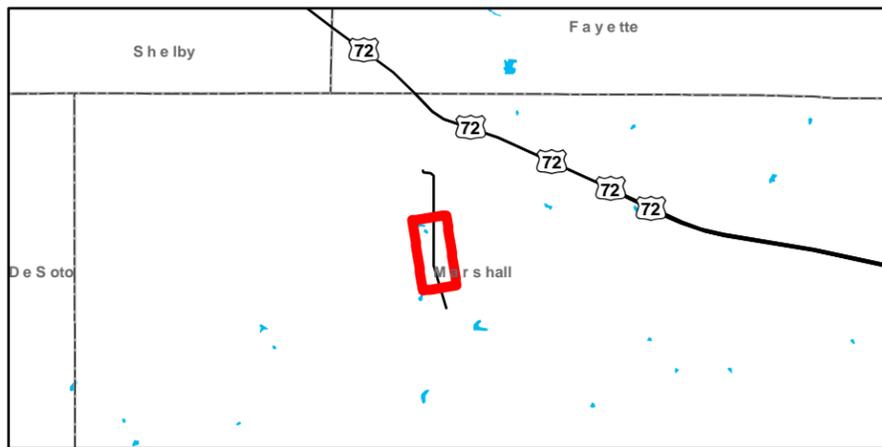
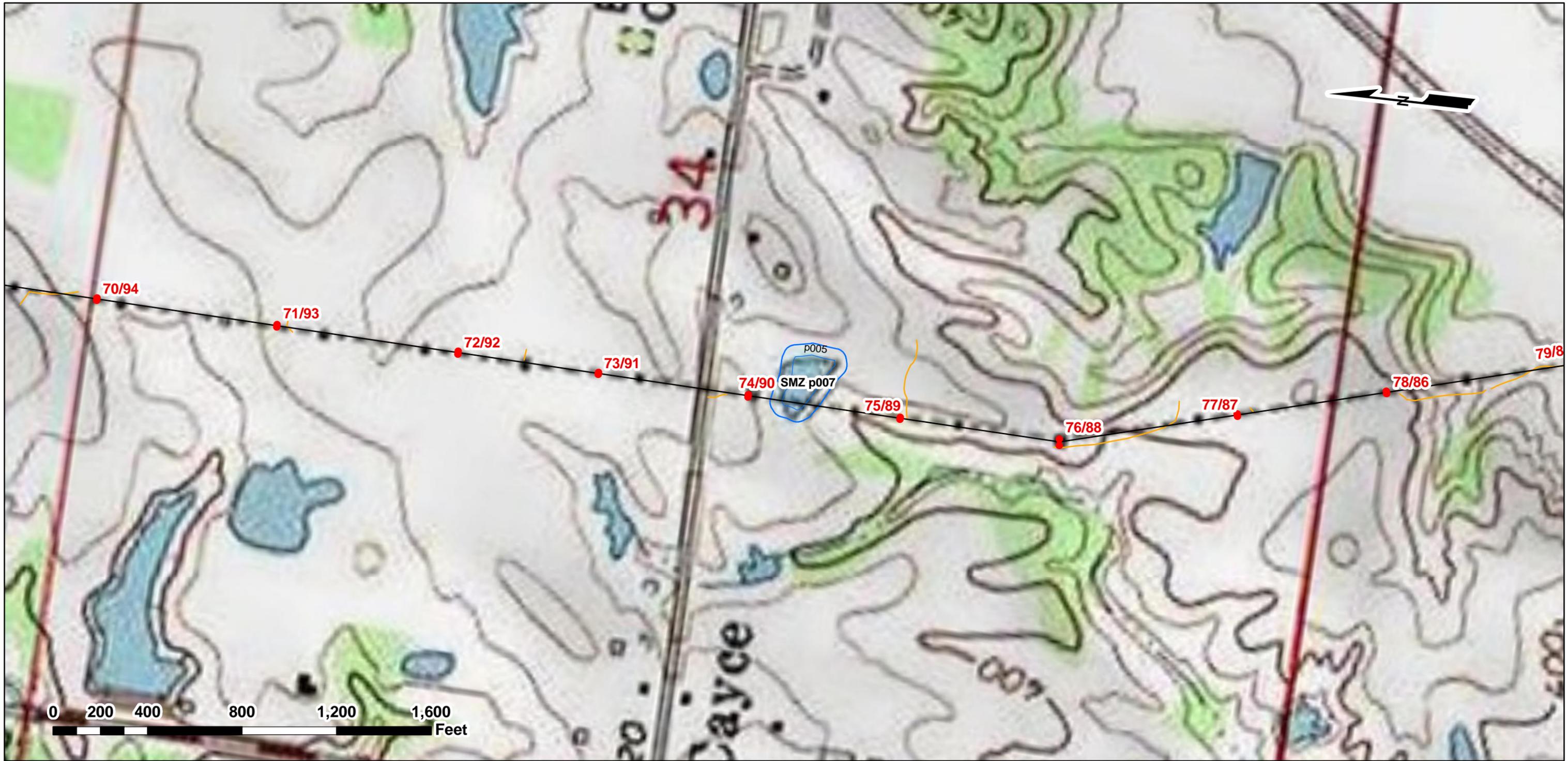


Legend

- 31PZE_line
- Ephemeral
- Streams
- ARCHAEOLOGY
- SMZ
- TERRESTRIAL ZOOLOGY
- WETLAND

**TENNESSEE VALLEY AUTHORITY
LOOP TO CHICKASAW TRAILS
SITE MAP**

Date:	11/20/2019	Submitted:	RCW	PAGE 1 OF 1
Scale:	1 inch = 400 feet	Map Date:	5/28/2020	31PZE 500516

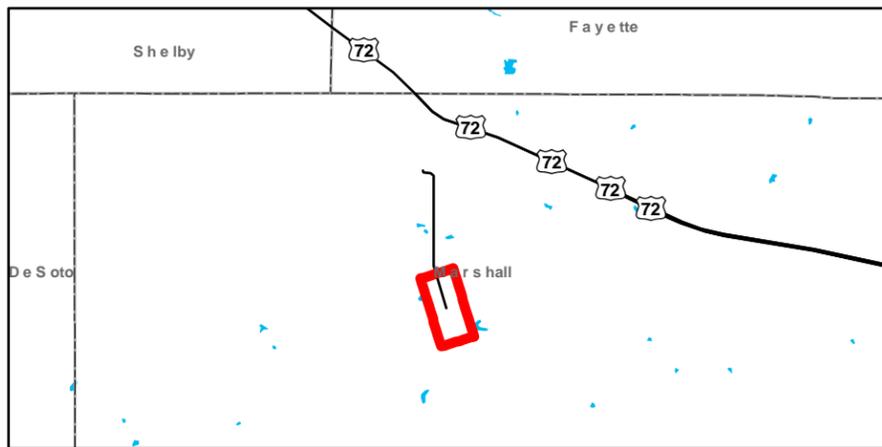


Legend

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- Streams
- ARCHAEOLOGY
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**TENNESSEE VALLEY AUTHORITY
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Date:	11/20/2019	Submitted:	RCW	PAGE 1 OF 1
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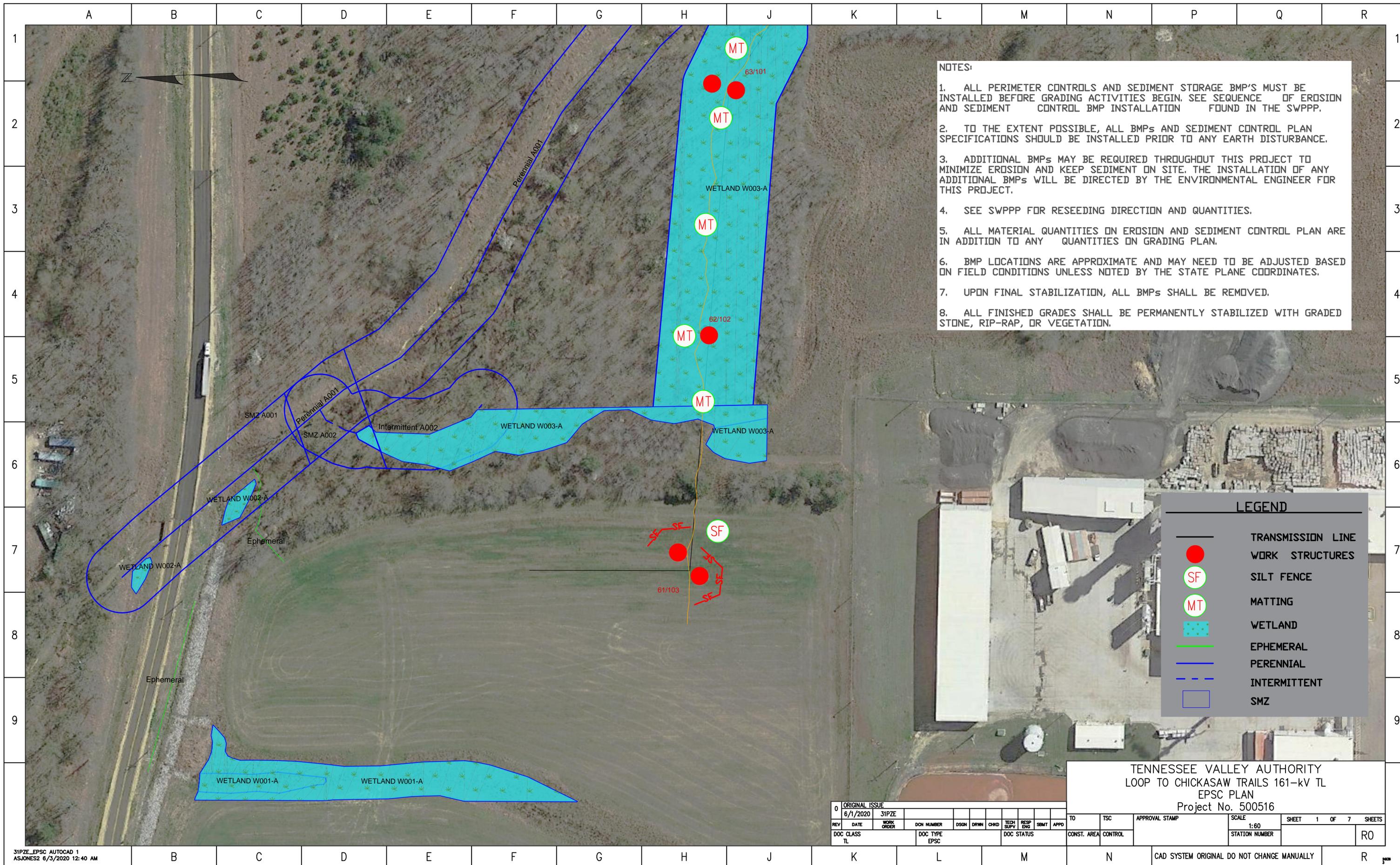


- Legend**
- 31PZE_line
 - Ephemeral
 - Streams
 - ARCHAEOLOGY
 - SMZ
 - TERRESTRIAL ZOOLOGY
 - WETLAND

TENNESSEE VALLEY AUTHORITY LOOP TO CHICKASAW TRAILS SITE MAP		
Date:	11/20/2019	Submitted: RCW
Scale:	1 inch = 400 feet	Map Date: 5/28/2020
		PAGE 1 OF 1 31PZE 500516

APPENDIX B

EROSION CONTROL DRAWINGS



NOTES:

1. ALL PERIMETER CONTROLS AND SEDIMENT STORAGE BMP'S MUST BE INSTALLED BEFORE GRADING ACTIVITIES BEGIN. SEE SEQUENCE OF EROSION AND SEDIMENT CONTROL BMP INSTALLATION FOUND IN THE SWPPP.
2. TO THE EXTENT POSSIBLE, ALL BMPs AND SEDIMENT CONTROL PLAN SPECIFICATIONS SHOULD BE INSTALLED PRIOR TO ANY EARTH DISTURBANCE.
3. ADDITIONAL BMPs MAY BE REQUIRED THROUGHOUT THIS PROJECT TO MINIMIZE EROSION AND KEEP SEDIMENT ON SITE. THE INSTALLATION OF ANY ADDITIONAL BMPs WILL BE DIRECTED BY THE ENVIRONMENTAL ENGINEER FOR THIS PROJECT.
4. SEE SWPPP FOR RESEEDING DIRECTION AND QUANTITIES.
5. ALL MATERIAL QUANTITIES ON EROSION AND SEDIMENT CONTROL PLAN ARE IN ADDITION TO ANY QUANTITIES ON GRADING PLAN.
6. BMP LOCATIONS ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED BASED ON FIELD CONDITIONS UNLESS NOTED BY THE STATE PLANE COORDINATES.
7. UPON FINAL STABILIZATION, ALL BMPs SHALL BE REMOVED.
8. ALL FINISHED GRADES SHALL BE PERMANENTLY STABILIZED WITH GRADED STONE, RIP-RAP, OR VEGETATION.

LEGEND

- TRANSMISSION LINE
- WORK STRUCTURES
- SILT FENCE
- MATTING
- WETLAND
- EPHEMERAL
- PERENNIAL
- INTERMITTENT
- SMZ

TENNESSEE VALLEY AUTHORITY
 LOOP TO CHICKASAW TRAILS 161-kV TL
 EPSC PLAN
 Project No. 500516

TO	TSC	APPROVAL STAMP	SCALE 1:60	SHEET 1 OF 7 SHEETS
DOC CLASS TL	DOC TYPE EPSC	DOC STATUS	CONST. AREA CONTROL	RO

0	ORIGINAL ISSUE	6/1/2020	31PZE																
REV	DATE	WORK ORDER	DCN NUMBER	DSGN	DRWN	CHKD	TECH SUPV	RESP ENG	SEMT	APPD									



LEGEND

- TRANSMISSION LINE
- WORK STRUCTURES
- SILT FENCE
- CONSTRUCTION EXIT
- MATTING
- WETLAND
- EPHEMERAL
- PERENNIAL
- SMZ

TENNESSEE VALLEY AUTHORITY
 LOOP TO CHICKASAW TRAILS 161-kV TL
 EPSC PLAN
 Project No. 500516

TO	TSC	APPROVAL STAMP	SCALE 1:60	SHEET 2 OF 7 SHEETS
DOC CLASS TL	DOC TYPE EPSC	DOC STATUS	CONST. AREA CONTROL	STATION NUMBER

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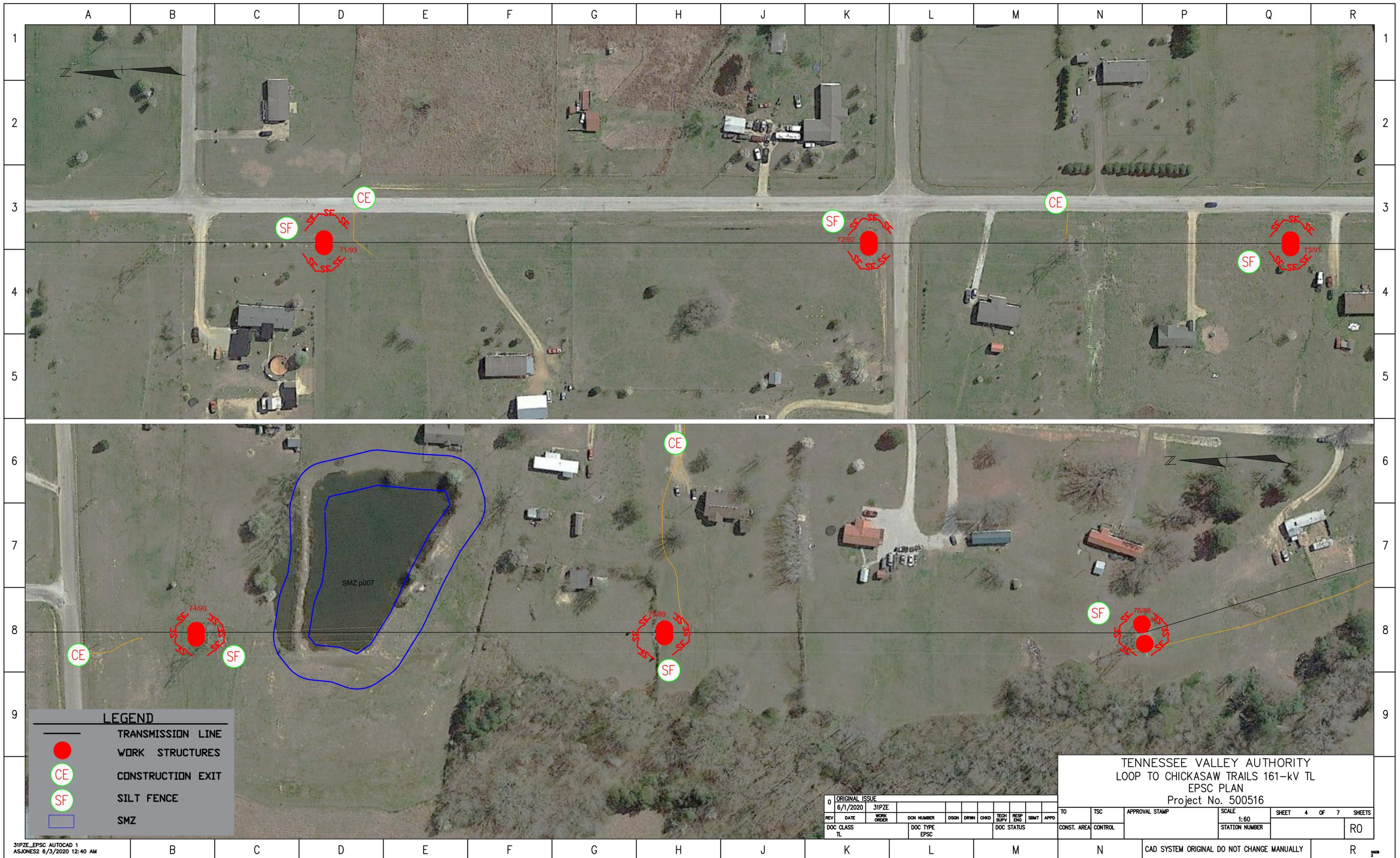


LEGEND

-  TRANSMISSION LINE
-  WORK STRUCTURES
-  CONSTRUCTION EXIT
-  SILT FENCE
-  WETLAND
-  EPHEMERAL

TENNESSEE VALLEY AUTHORITY LOOP TO CHICKASAW TRAILS 161-kV TL EPSC PLAN Project No. 500516									
TO	TSC	APPROVAL STAMP	SCALE	SHEET	3	OF	7	SHEETS	
DOC CLASS		DOC TYPE		DOC STATUS		CONST. AREA		CONTROL	RO
TL		EPSC							

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REV	DATE	WORK ORDER	DCN NUMBER	DSGN	DRWN	CHKD	TECH SUPV	RESP ENG	SEMT APPD
	6/1/2020	31PZE							





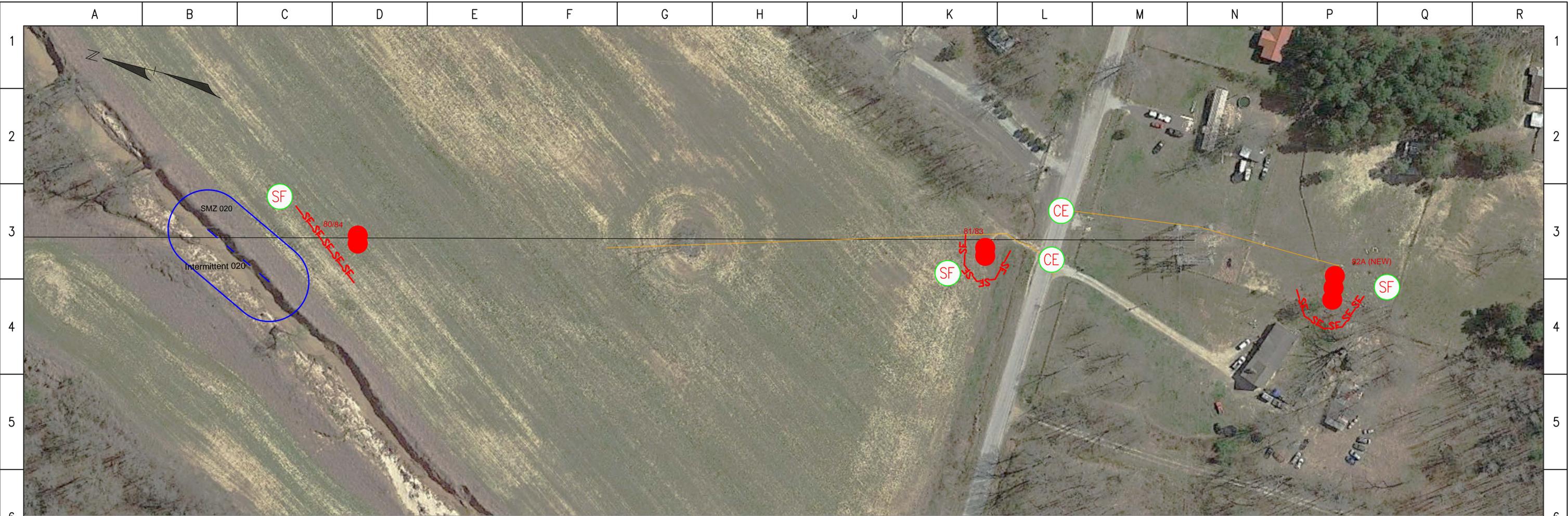
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-  WORK STRUCTURES
-  CONSTRUCTION EXIT
-  SILT FENCE
-  SMZ
-  INTERMITTENT

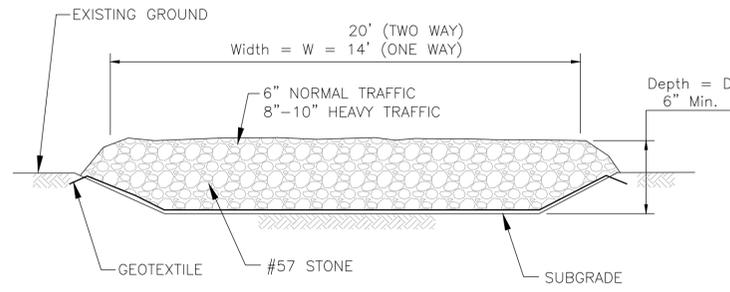
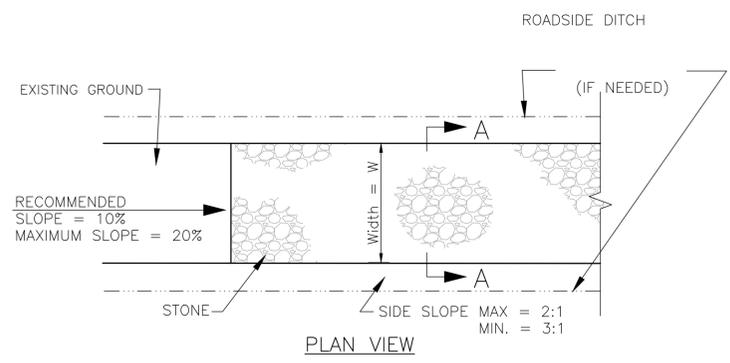
TENNESSEE VALLEY AUTHORITY
 LOOP TO CHICKASAW TRAILS 161-kV TL
 EPSC PLAN
 Project No. 500516

REV	DATE	WORK ORDER	DCN NUMBER	DSGN	DRWN	CHKD	TECH SUPV	RESP ENG	SEMT	APPD
0	6/1/2020	31PZE								
DOC CLASS			DOC TYPE			DOC STATUS			CONST. AREA CONTROL	
TL			EPSC						RO	

SCALE: 1:60
 SHEET 5 OF 7 SHEETS



LEGEND	
	TRANSMISSION LINE
	WORK STRUCTURES
	CONSTRUCTION EXIT
	SILT FENCE
	SMZ
	PERENNIAL



SECTION A-A
ACCESS ROAD TYPICAL SECTION
TO BE INSTALLED AS NEEDED

*Material Quantities	
Silt Fence (Linear ft)	3,400
Sediment Tube (Linear ft)	-
Rock (Tons)	670
Geotextile fabric (yd ²)	2,290
Matting (Linear ft)	980

*These quantities pertain to only those BMPs required for erosion control and environmental compliance. Quantities and locations may need to be adjusted based on field conditions.

TENNESSEE VALLEY AUTHORITY LOOP TO CHICKASAW TRAILS 161-kV TL EPSC PLAN Project No. 500516																	
REV	DATE	WORK ORDER	DCN NUMBER	DSGN	DRWN	CHKD	TECH SUPV	RESP ENG	SEMT	APPD	TO	TSC	APPROVAL STAMP	SCALE	SHEET	OF	SHEETS
0	6/1/2020	31PZE											1:60	6	7		RO
DOC CLASS		DOC TYPE		DOC STATUS			CONST. AREA		CONTROL		STATION NUMBER						

EPSC PHASING

PHASE 1

1. DELINEATION AND ESTABLISHMENT OF THE LIMITS OF DISTURBANCE.
2. INSTALLATION OF CONSTRUCTION EXITS.

PHASE 2

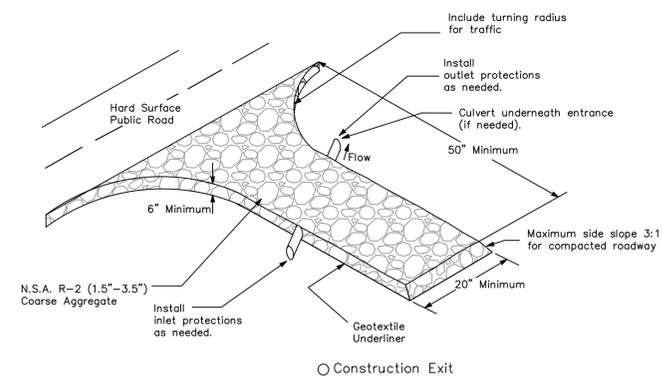
1. INITIAL CLEARING OF VEGETATION.
2. CONSTRUCTION OF ACCESS ROAD, EARTH BERM WATER BARS AND TEMPORARY CULVERTS/FORDS AS NEEDED.
3. INSTALLATION OF PERIMETER MEASURES.
4. INSTALLATION OF TRIPLE STACKED WATTLES AT LOW POINTS OF PERIMETER CONTROLS.
5. ESTABLISHMENT OF TEMPORARY STABILIZATION (TEMP. SEED/MULCH) IN AREAS THAT HAVE CEASED CONSTRUCTION OR WILL NO LONGER BE ACTIVE > 14 DAYS.

PHASE 3

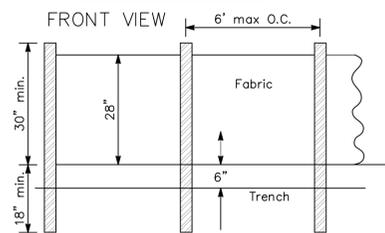
1. ESTABLISHMENT OF PERMANENT STABILIZATION WITH VEGETATION (PERMANENT SEED/MULCH, PERMANENT SEED/EROSION CONTROL BLANKETS, ETC.).
2. REMOVAL OF EPSC MEASURES.

CONSTRUCTION EXIT NOTES

1. CRUSHED STONE CONSTRUCTION EXITS SHALL BE CONSTRUCTED AS SHOWN AND LOCATED AND PROTECTED TO PREVENT SEDIMENT FROM LEAVING THE SITE.
2. ON SITES WHERE THE GRADE TOWARD THE PAVED AREA IS GREATER THAN 2%, A DIVERSION RIDGE OF 6 TO 8 INCHES HIGH WITH 3:1 SIDE SLOPES SHALL BE CONSTRUCTED ACROSS THE FOUNDATION APPROXIMATELY 15 FEET ABOVE THE ROAD.
3. THE GEOTEXTILE UNDER-LINER SHALL BE PLACED THE FULL LENGTH AND WIDTH OF THE ENTRANCE, MATERIAL SELECTION SHALL BE BASED ON THE REQUIREMENTS OF AASHTO M288-98, SECTION 7.3 OR 7.4. PERIODIC TOP DRESSING IF THE EXIT WITH 1.5-3.5 INCH STONE MAY BE REQUIRED TO PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS OF WAY.

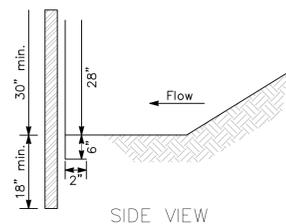


Type A Silt Fence



SILT FENCE NOTES

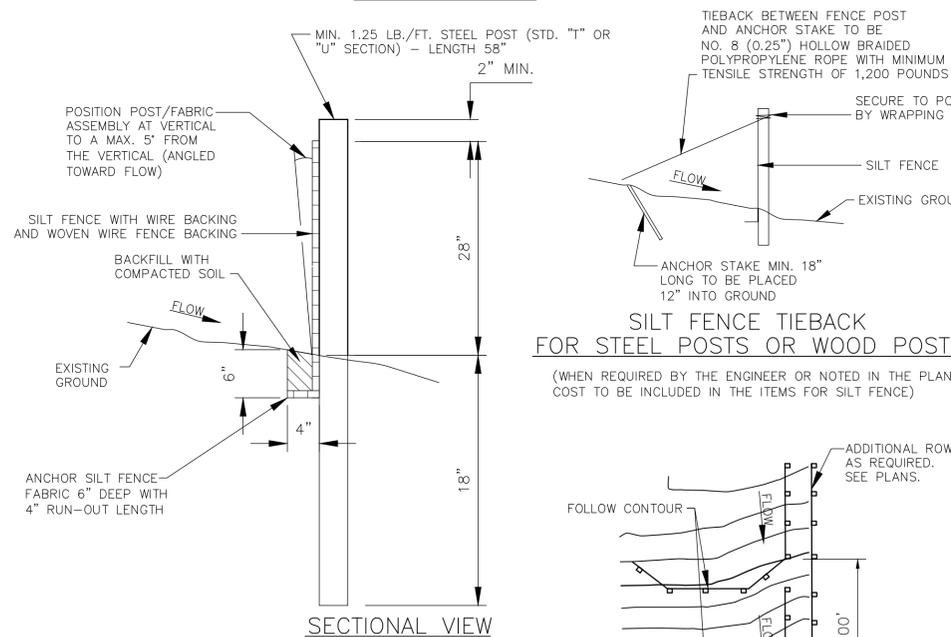
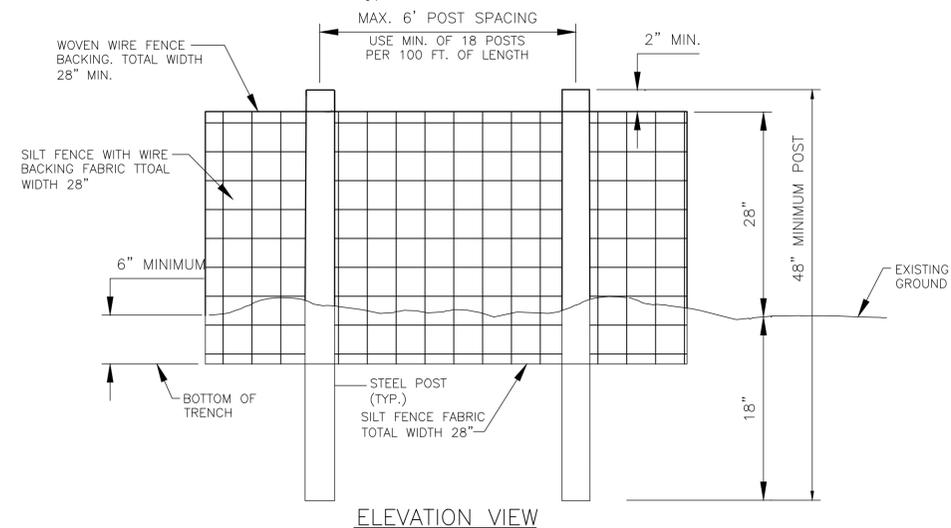
1. THE SILT FENCE MANUFACTURER SHALL HAVE EITHER AN APPROVED COLOR MARK YARN IN THE FABRIC OR LABEL THE FABRICATED SILT FENCE WITH BOTH THE MANUFACTURER AND FABRIC NAME EVERY 100 FEET.
2. INSTALLATION SHALL BE IN ACCORDANCE WITH THE EPSC PLANS OR AS DIRECTED BY THE FIELD ENGINEER.
3. ALONG THE SIDE THE SMZ TWO ROWS OF TYPE C SILT FENCE OR ONE ROW OF TYPE C SILT FENCE BACKED WITH HAY OR STRAW BALES MAY BE USED AS NECESSARY.
4. SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE SILT FENCE. SILT FENCE FILTER FABRIC SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT EFFECTIVENESS OF THE FABRIC IS REDUCED (APPROXIMATELY 6 MONTHS). TEMPORARY SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATED BEHIND THE BARRIERS SHALL BE REMOVED AND PROPERLY DISPOSED BEFORE THE BARRIERS ARE REMOVED.



PARAMETER	TYPE A (3)	TYPE C
TENSILE STRENGTH(lbs min) (1) (ASTM D-4632)	WARP-120 FILL-100	WARP-260 FILL-180
ELONGATION (MAX) (ASTM D-4632)	40	40
AOS (APPARENT OPENING SIZE) (MAX. SIEVE SIZE) (ASTM D-4650)	#30	#30
FLOW RATE (GAL/MIN/SQ.FT.) (GDT-87)	25	70
ULTRAVIOLET STABILITY (2) (ASTM D-4632 AFTER 300 HRS WEATHERING IN ACCORDANCE WITH ASTM D-4355)	80	80
BURSTING STRENGTH (PSI MIN) (ASTM D-3786 DIAPHRAGM BURSTING STRENGTH TESTER)	175	175
MINIMUM FABRIC WIDTH (inches)	36	36

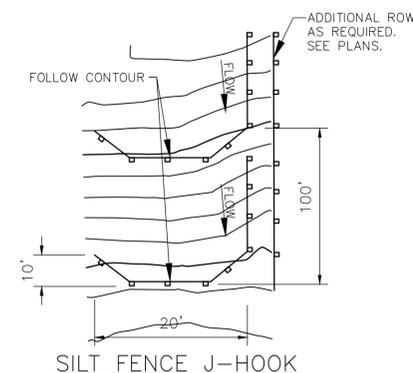
(1) MINIMUM ROLL AVERAGE OF FIVE SPECIMENS.
(2) PERCENT OF REQUIRED INITIAL MINIMUM TENSILE STRENGTH.
(3) BRUSH BARRIERS (Bb) MAY BE SUBSTITUTED FOR TYPE A SILT FENCE.

Type C Silt Fence



SILT FENCE TIEBACK FOR STEEL POSTS OR WOOD POSTS

(WHEN REQUIRED BY THE ENGINEER OR NOTED IN THE PLANS, COST TO BE INCLUDED IN THE ITEMS FOR SILT FENCE)



SILT FENCE J-HOOK

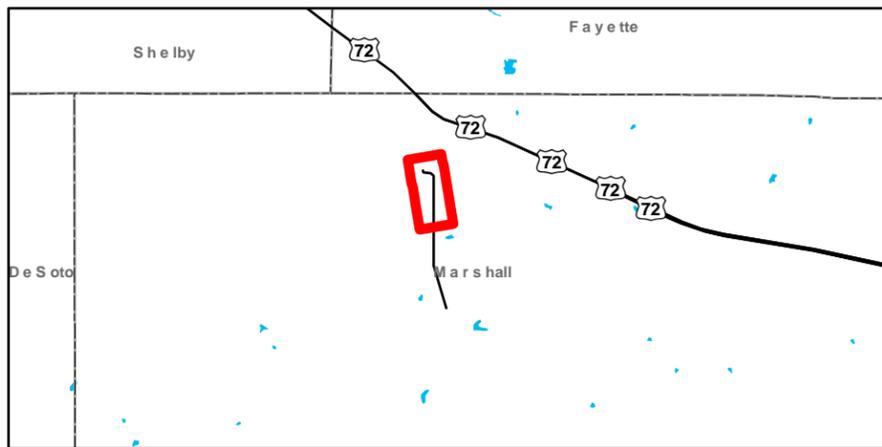
"J-HOOKS" SHALL BE INSTALLED AS SHOWN EVERY 100'.

0 ORIGINAL ISSUE										TO		TSC		APPROVAL STAMP		SCALE		SHEET 7 OF 7 SHEETS			
REV	DATE	WORK ORDER	DCN NUMBER	DSGN	DRWN	CHKD	TECH SUPV	RESP ENG	SBMT	APPD	CONST. AREA		CONTROL		STATION NUMBER		RO				
DOC CLASS TL										DOC TYPE EPSC		DOC STATUS		CONST. AREA		CONTROL		STATION NUMBER		RO	

TENNESSEE VALLEY AUTHORITY
LOOP TO CHICKASAW TRAILS 161-KV TL
EPSC PLAN
Project No. 500516

APPENDIX C

SOILS INFORMATION



Legend

— 31PZE_line

Soil Data

MUSYM, HDROLGRP, KFACTWS

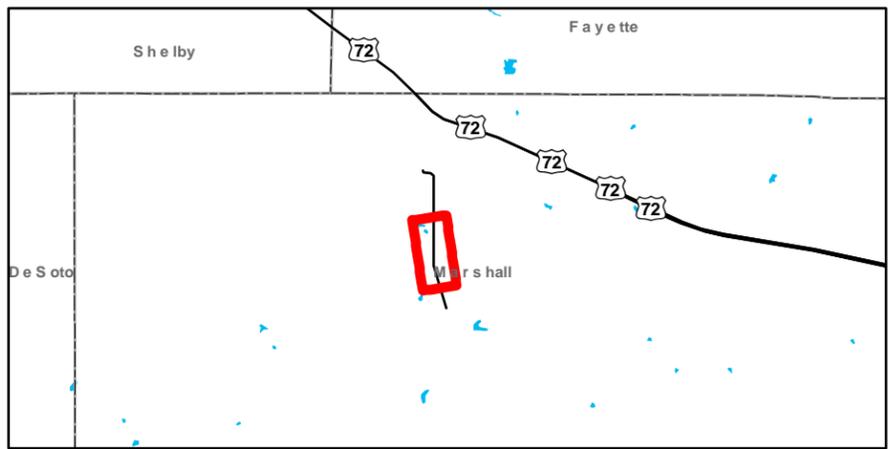
-  CcB2, C, .49
-  GrC3, C, .49
-  He, D, .49
-  LoB2, C, .49
-  LoD3, C, .49

**TENNESSEE VALLEY AUTHORITY
LOOP TO CHICKASAW TRAILS
SITE MAP**

Date:	11/20/2019	Submitted:	RCW	PAGE 1 OF 1
Scale:	1 inch = 400 feet	Map Date:	5/29/2020	31PZE 500516



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Legend

— 31PZE_line

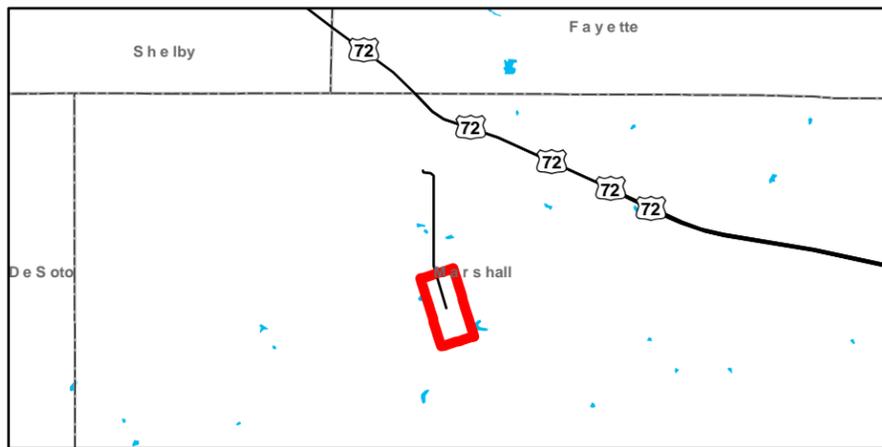
Soil Data

MUSYM, HDROLGRP, KFACTWS

- CbE3, B, .49
- LoD3, C, .49
- GrC3, C, .49
- W, ,
- He, D, .49
- LoB2, C, .49
- LoC3, C, .49

**TENNESSEE VALLEY AUTHORITY
LOOP TO CHICKASAW TRAILS
SITE MAP**

Date: 11/20/2019	Submitted: RCW	PAGE 1 OF 1
Scale: 1 inch = 400 feet	Map Date: 5/29/2020	31PZE 500516



Legend

— 31PZE_line

Soil Data

MUSYM, HDROLGRP, KFACTWS

-
 CbE3, B, .49
 -
 Va, B, .43
-
 Fa, D, .49
 -
 Vo, B, .43
-
 GvE, B, .55
-
 LoC3, C, .49
-
 LoD3, C, .49

**TENNESSEE VALLEY AUTHORITY
LOOP TO CHICKASAW TRAILS
SITE MAP**

Date: 11/20/2019	Submitted: RCW	PAGE 1 OF 1
Scale: 1 inch = 400 feet	Map Date: 5/29/2020	31PZE 500516

APPENDIX D

STORMWATER INSPECTION FORM

Keep a Copy Available at the Permitted Facility or Locally Available
 Submit the Inspection Reports Only if Requested by the Mississippi Department of Environmental Quality (MDEQ)

**LARGE CONSTRUCTION GENERAL PERMIT
 SITE INSPECTION AND CERTIFICATION FORM
 COVERAGE NUMBER (MSR10 _ _ _ _)**



INSTRUCTIONS

Results of construction storm water inspections required by ACT6 of this permit shall be recorded on this report form and kept with the Storm Water Pollution Prevention Plan (SWPPP) in accordance with the inspection documentation provisions of ACT10 of the this permit. Inspections shall be performed at least weekly for a minimum of four inspections per month. The coverage number must be listed at the top of all Inspection and Certification Forms.

COVERAGE RECIPIENT INFORMATION

OWNER/PRIME CONTRATOR NAME: _____

PROJECT NAME: _____

PROJECT STREET ADDRESS: _____

PROJECT CITY: _____ PROJECT COUNTY: _____

OWNER/PRIME CONTRACTOR MAILING ADDRESS: _____

MAILING CITY: _____ STATE: _____ ZIP: _____

CONTACT PERSON: _____ CONTACT PHONE NUMBER: (_____) _____

INSPECTION DOCUMENTATION

DATE (mo/day/yr)	TIME (hr:min AM/PM)	ANY DEFICIENCIES? (CHECK IF YES)	INSPECTOR(S)
		<input type="checkbox"/>	

Deficiencies Noted During any Inspection (give date(s); attach additional sheets if necessary): _____

Corrective Action Taken or Planned (give date(s); attach additional sheets if necessary): _____

Based upon this inspection, which I or personnel under my direct supervision conducted, I certify that all erosion and sediment controls have been implemented and maintained, except for those deficiencies noted above, in accordance with the Storm Water Pollution Prevention Plan (SWPPP) and sound engineering practices as required by the above referenced permit. I further certify that the LCNOI and SWPPP information is up to date.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

 Authorized Signature

 Date

 Printed Name

 Title

APPENDIX E

SWPPP REVISION LOG

Project:

SWPPP Revision Log

Date	Revision	Sheet or Page Number	Details	Change Made By
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			

APPENDIX F

Other Environmental Permits



DEPARTMENT OF THE ARMY
MEMPHIS DISTRICT CORPS OF ENGINEERS
167 NORTH MAIN STREET B-202
MEMPHIS, TENNESSEE 38103-1894

December 30, 2019

Ms. Jessica Lyon
Tennessee Valley Authority
1101 Market Street, BR 2C
Chattanooga, TN 37402

Dear Ms. Lyon:

This is in reference to your correspondence regarding Tennessee Valley Authority's proposal to construct an overhead utility line (electrical) consisting of nine crossings of jurisdictional wetlands. The proposed impacts will occur in Fayette County, Tennessee, and both Desoto and Marshall Counties, Mississippi, as shown on the attached map. Based on information provided, a Section 404 permit would be required for the proposed project.

All Section 404 permits must have a Section 401 water quality certification or waiver from the state's certifying agency. The state of Mississippi has issued Section 401 water quality certification for Nationwide Permit (NWP) No. 12. Therefore, impacts in Mississippi are authorized pursuant to the Federal Register, Volume 82, Number 4, dated January 6, 2017.

However, the State of Tennessee has denied water quality certification for this NWP. Accordingly, the portion of the activity you propose in Tennessee is not authorized by the Corps of Engineers until an individual water quality certification is issued or waived. You must also comply with any state water quality certification conditions.

To obtain Tennessee state water quality certification or waiver you may contact the Natural Resources Section, Division of Water Pollution Control, 312 Rosa L. Parks Ave, Nashville, Tennessee, 37243. When you have received water quality certification or waiver, your proposed work meets the criteria of NWP 12, pursuant to the Federal Register, Volume 82, Number 4, dated January 6, 2017.

The attached general and special conditions must be met. Note specifically General Conditions 18 and 20 concerning endangered species and historic properties. If all conditions cannot be met, and individual permit may be required.

Special Conditions:

a. 0.10 mitigation credits are to be purchased from the Wolf River Wetland Mitigation Bank prior to impacting the subject wetlands.

b. 40.33 credits are to be purchased from the Upper Coldwater Mitigation Bank prior to impacting the subject wetlands.

Regulations require that the Memphis District be informed of the completion date so that a compliance inspection can be scheduled. Please complete and return the enclosed "Certificate of Compliance" with 30 days of the completion of this project.

This verification is valid until the NWP is modified, reissued or revoked. All of the existing NWP's are scheduled to be modified, reissued or revoked prior to March 18, 2022. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant NWP is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP.

This permit conveys no property rights, either in real estate, material or any exclusive privileges. Furthermore, no injury to property, invasion of rights, any infringement of federal, state or local laws or regulations is authorized. The decision regarding this action is based on information found in the administrative record, which documents the district's decision-making process, the basis for the decision and the final decision.

The Memphis District, Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, we invite you to complete a Customer Service Survey found on our web site at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. Your comments, positive or negative, will not affect any current or future dealing with the Corps of Engineers.

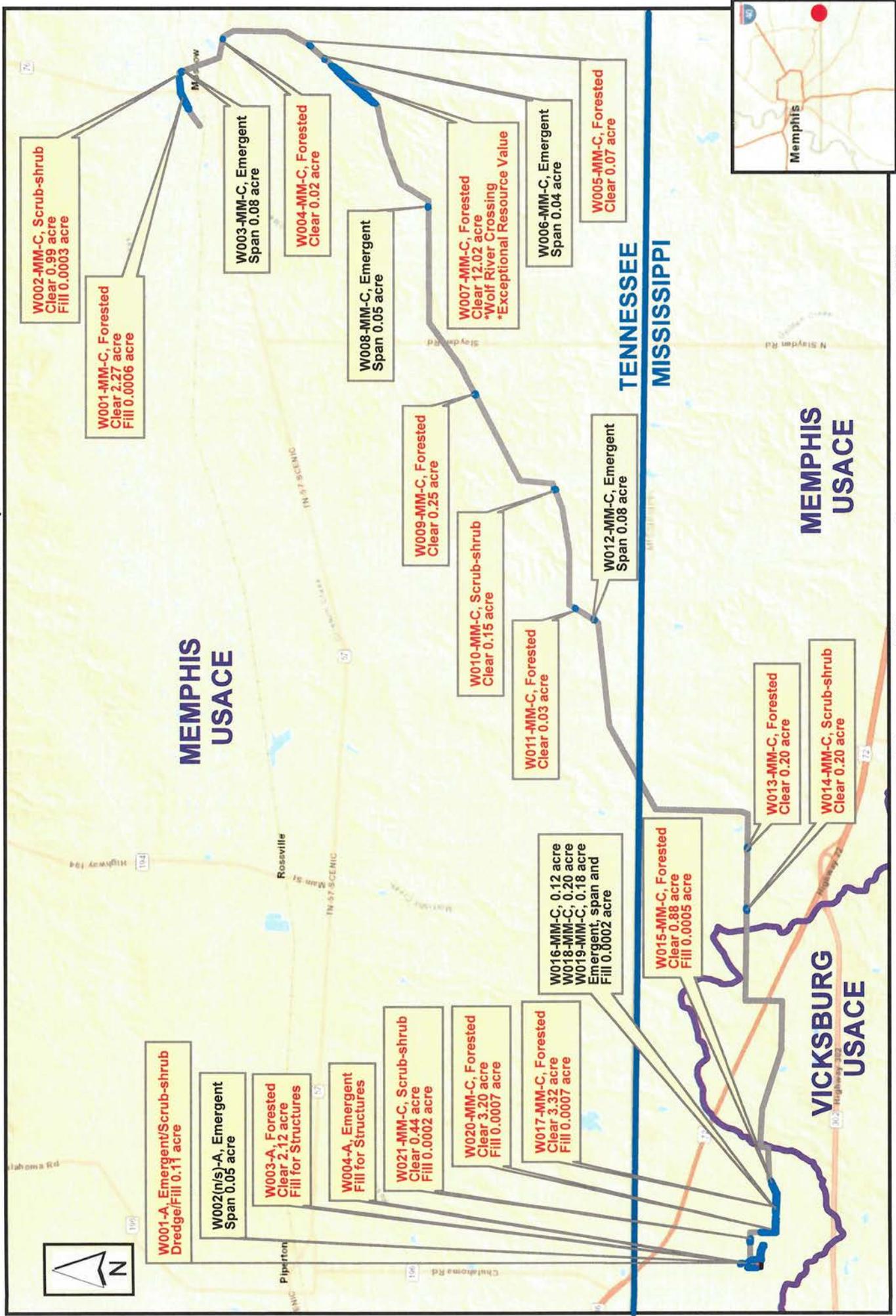
Your cooperation in the regulatory program is appreciated. If you have any questions please contact Ben Pitcock at (901) 544-3468. Please refer to File No. MVM-2019-315.

Sincerely,


for Roger S. Allan
Supervisor
Regulatory Branch

Enclosures

Moscow-Miller 17-mile New Line and Chickasaw Trails Switching Station with Loop Lines Wetland Information Map



Certificate of Completion

Permit Name: MVM-2019-315

Name of Permittee: Tennessee Valley Authority

Date of Issuance: December 30, 2019

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

**Regulatory Branch
Corps of Engineers Memphis District
167 N Main Street Room B202
Memphis, TN 38103-1894**

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit and required mitigation (if needed) was completed in accordance with the permit conditions.

Signature of Permittee



STATE OF MISSISSIPPI
PHIL BRYANT
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
GARY C. RIKARD, EXECUTIVE DIRECTOR

March 6, 2017

Certified Mail No. 7012 3460 0003 2548 6056

Ms. Jennifer Mallard
Regulatory Branch Chief
U.S. Army Corps of Engineers, Vicksburg District
4155 Clay Street
Vicksburg, Mississippi 39183-3435

Dear Ms. Mallard:

Re: US Army Corps of Engineers
Nationwide Permit No. 12
Warren County
COE No. MVK-2017-114
WQC No. WQC2017012

Pursuant to Section 401 of the Federal Water Pollution Control Act (33 U. S. C. 1251, 1341), the Office of Pollution Control (OPC) issues this Certification, after public notice and opportunity for public hearing, to the U.S. Army Corps of Engineers, an applicant for a Federal License or permit to conduct the following activity:

US Army COE, Nationwide Permit No. 12:

Nationwide Permits are general permits issued on a nationwide basis to streamline the authorization of activities that have no more than minimal and cumulative adverse effects on the aquatic environment. The U.S. Army Corps of Engineers issues NWP's to authorize certain activities that require Department of the Army permits under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899.

12. Utility Line Activities. Activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Utility lines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or repair of utility lines, including outfall and intake structures. There must be no change in pre-construction contours of waters of the United States. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and internet, radio, and television communication. The term "utility line" does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area. Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a power line or utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for overhead utility line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of

the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges into nontidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (*e.g.*, at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (See 33 CFR part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub-soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to preconstruction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if any of the following criteria are met: (1) The activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (*i.e.*, water of the United States), and it runs parallel to or along a stream bed that is within that jurisdictional area; (5) discharges that result in the loss of greater than 1/10- acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (See general condition 32.)

Note 1: Where the utility line is constructed or installed in navigable waters of the United States (*i.e.*, section 10 waters) within the coastal United States, the Great Lakes, and United States territories, a copy of the NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

Note 2: For utility line activities crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Utility line activities must comply with 33 CFR 330.6(d).

Note 3: Utility lines consisting of aerial electric power transmission lines crossing navigable waters of the United States (which are defined at 33 CFR part 329) must comply with the applicable minimum clearances specified in 33 CFR 322.5(i).

Note 4: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 5: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

Note 6: This NWP authorizes utility line maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

Note 7: For overhead utility lines authorized by this NWP, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

Note 8: For NWP 12 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require preconstruction notification (see paragraph (b) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23). [MVK-2017-114, WQC2017012].

The Office of Pollution Control certifies that the above-described activity will be in compliance with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act and Section 49-17-29 of the Mississippi Code of 1972, if the applicant complies with the following conditions:

1. The permittee shall obtain appropriate wastewater permits and/or approvals for the proposed activity prior to the commencement of construction activities.
2. For projects greater than five acres of total ground disturbances including clearing, grading, excavating, or other construction activities, the applicant shall obtain the necessary coverage under the State of Mississippi's Large Construction Storm Water General NPDES Permit. For projects greater than one, to less the five acres of total ground disturbances including clearing, grading, excavating, or other construction activities, the applicant shall follow the conditions and limitations of the State of Mississippi's Small Construction Storm Water General NPDES Permit. No construction activities shall begin until the necessary approvals and/or permits have been obtained.

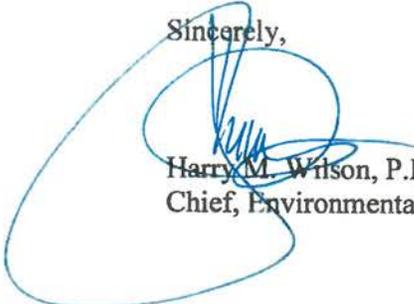
3. In cases where a PCN is required, a PCN shall be provided to the Department of Environmental Quality (Department) for projects that include channel work within waterways found on the latest version of the State of Mississippi's Section 303(d) List of Impaired Water Bodies for sediment or biological impairment or waterways with a completed Total Maximum Daily Load (TMDL) for sediment or biological impairment. This notification shall include the following:
 - a. Justification of why the impacts cannot be avoided;
 - b. Proposed best management practices that would minimize the impacts to receiving sensitive waters; and
 - c. Compensatory mitigation primarily along the same reach of stream or on another impaired stream within the same drainage basin.
4. In cases where a PCN is required to the U.S. Army Corps of Engineers, a PCN shall be provided to the Department for projects associated with hydrofacking activities for oil and gas exploration. Unless verification is provided that the proposed activities have been previously reviewed and approved through a master planning process, the Department shall be allowed 10 days to provide comments for the proposed activities. For activities not previously included in an approved master planning process, the PCN notification to the Department shall include the following:
 - a. Impacts resulting from authorizations for oil and gas exploration shall be minimized to the maximum extent practicable;
 - b. A mitigation plan for unavoidable impacts shall be provided and should be within the same watershed as practicable;
 - c. All fill shall be removed in the event that projection is not achieved; and
 - d. A plan for restoring the sites in the event production is not achieved.
5. Discharges of cuttings, drilling mud, hydrostatic testing water, or any other waste material are prohibited unless approved in writing or permitted by the Department.

6. The Department shall be furnished copies of authorizations of coverages under this NWP.
7. No sewage, oil, refuse, or other pollutants shall be discharged into the watercourse.
8. The turbidity outside the limits of a 750-foot mixing zone shall not exceed the ambient turbidity by more than 50-Nephelometric Turbidity Units.

The Office of Pollution Control also certifies that there are no limitations under Section 302 nor standards under Sections 306 and 307 of the Federal Water Pollution Control Act which are applicable to the applicant's above-described activity.

This certification is valid for the project as proposed. Any deviations without proper modifications and/or approvals may result in a violation of the 401 Water Quality Certification. If we can be of further assistance, please contact us.

Sincerely,



Harry M. Wilson, P.E., DEE
Chief, Environmental Permits Division

HMW: ld

cc: U.S. Army Corps of Engineers, Mobile District
Attn: Mr. Craig Litteken
U.S. Army Corps of Engineers, Memphis District
Attn: Mr. Tim Fudge
U.S. Army Corps of Engineers, Nashville District
Attn: Mr. Timothy Wilder
U.S. Army Corps of Engineers, New Orleans District
Attn: Mr. Michael Farabee
Ms. Willa Brantley, Department of Marine Resources
Mr. David Felder, U.S. Fish and Wildlife Service
Mr. William Ainsley, Environmental Protection Agency

