

**PUBLIC NOTICE FOR
CATEGORICALLY EXCLUDED ACTION
AFFECTING WETLAND**

Crawfish Creek Battery Energy Storage System Construction

The Tennessee Valley Authority (TVA) is seeking your comments on proposed wetland impacts and TVA's determination of no practicable alternative. Comments must be received no later than fourteen (14) days from the date of notice publication. Public input for further wetland avoidance or minimization strategies shall be considered in TVA's ultimate project design and implementation. Any comments, including names and addresses, will become part of the administrative record and will be available for public inspection as requested.

**Submit comments regarding wetland impacts resulting from this project to:
Fallon Parker Hutcheon, fcparkerhutcheon@tva.gov**

Crawfish Creek Energy Storage (Project) is a proposed 200-megawatt/800-megawatt-hour lithium-ion battery energy storage system (BESS) in Jackson County, Alabama, that would interconnect with Tennessee Valley Authority's (TVA) existing Dogwood Hills–Rock Spring 230-kilovolt (kV) transmission line (TL; L6183). The Project would be located within a 40.5-acre site (Project site) and would include a BESS facility, a new Project substation (approximately 11.1 acres); a new TVA switchyard (that would occupy approximately 4 acres of 14 acres reserved for the TVA switchyard within the Project site); and a temporary laydown area (approximately 6.6 acres). The associated TVA Transmission System (TS) Modifications would encompass approximately 12.6 acres (TS Modification Area) and include new TL connections between L6183 and Project site. Specifically, it would include connections to the TVA switchyard and the BESS facility; installation of new TL structures and approximately 3.6 miles of optical ground wire (OPGW) on L6183. The TS Modification Area would use an existing right-of-way (ROW) as well as existing and new access roads to allow vehicular access to each structure for related upgrades. Together, the Project site (40.5 acres) and the TS Modification Area (12.6 acres) total 53.1 acres and are referred to herein as the Study Area.

The Project will require new construction across wetlands. Therefore, this project is subject to Executive Order 11990 (EO11990), which requires federal agencies to minimize wetland destruction, loss, or degradation, and preserve the natural and beneficial wetland values while carrying out the agency's responsibilities. This project involves clearing tall woody vegetation for the new construction.

Table 1. Summary of Delineated Wetlands within the Study Area

Feature Name	Center Coordinates		Cowardin Classification ¹	Presumed CWA Section 404/401 Jurisdictional Status	TVARAM Score ²	Wetland Extent (acres)
	Latitude	Longitude				
W001-PEM/PFO*	34.829770	-85.666846	PEM	Jurisdictional	38	0.88
	34.830862	-85.666535	PFO	Jurisdictional	38	0.17
W002-PEM*	34.829593	-85.669051	PEM	Non-jurisdictional	23	0.11
W003-PEM*	34.830670	-85.665151	PEM	Jurisdictional	40	0.01
W004-PFO	34.830879	-85.664625	PFO	Jurisdictional	37	0.06

Feature Name	Center Coordinates		Cowardin Classification ¹	Presumed CWA Section 404/401 Jurisdictional Status	TVARAM Score ²	Wetland Extent (acres)
	Latitude	Longitude				
W005-PFO	34.829488	-85.663083	PFO	Jurisdictional	39	0.03
W006-PEM	34.832914	-85.670061	PEM	Jurisdictional	41.5	0.09
W007-PEM	34.845072	-85.698703	PEM	Non-jurisdictional	18.5	0.03
Total Presumed Jurisdictional Wetlands						1.24
Total Presumed Non-jurisdictional Wetlands						0.14
Total Wetlands						1.38

*USACE verified features

¹ PEM: palustrine emergent; PFO: palustrine forested (Cowardin et al. 1979)

²TVARAM score descriptions are summarized in Table 2.

Forested Wetlands

W001-PFO is a 0.17-acre wetland in the central portion of the Study Area. Wetland hydrology indicators included surface water at a depth of six inches, drainage patterns, water-stained leaves, and geomorphic position were observed. This wetland had a depleted redox with prominent redox concentrations. Dominant vegetation in the tree stratum included black willow (*Salix nigra*) and red maple (*Acer rubrum*). Found in the herb stratum was soft rush (*Juncus effusus*), hairy buttercup (*Ranunculus sardous*), and bottlebrush sedge (*Carex lurida*). W001-PFO scored as good/moderate quality.

W004-PFO is a 0.06-acre wetland located along the eastern boundary of the Project Site. W004 drains to S002, which flows through the wetland. Wetland hydrology indicators included less than an inch of surface water, and saturation and water table at less than two inches. Dominant trees include sweet gum (*Liquidambar styraciflua*) and red maple. Dominant herbaceous species included soft rush, southern beaksedge (*Rhynchospora macrocarpa*), and Japanese stiltgrass (*Microstegium vimineum*). W004 scored as good/moderate quality.

W005-PFO is a 0.03-acre wetland located along an access route between the Project Site and Tower 30. S003 and S004 flow through the wetland. W005 is surrounded by cow pasture and impacts from cattle were observed. Wetland hydrology indicators included water-stained leaves and drainage patterns. Dominant vegetation included shagbark hickory (*Carya ovata*) and red maple in the tree stratum, and Japanese privet (*Ligustrum japonicum*) in the shrub/sapling stratum. Herbaceous species were dominated by Japanese stiltgrass and denseflower knotweed (*Persicaria glabra*). W005 scored as good/moderate quality.

Emergent Wetlands

W001-PEM is a 0.88-acre wetland that extends in a generally north-south orientation in the central portion of the Project Site. Wetland hydrology indicators included surface water present to a depth of four inches, water-stained leaves, geomorphic position, and drainage patterns. Hydric soil indicators included a depleted matrix and distinct redox concentrations. Dominant vegetation consisted of sweet gum, soft rush, hairy buttercup, and bottlebrush sedge. The wetland is surrounded by cow pasture and evidence of cattle movement through the wetland was observed. W001-PEM scored as good/moderate quality.

W002-PEM is a 0.11-acre wetland along the southwestern boundary of the Project Site. Wetland hydrology indicators included surface water present to a depth of four inches, water-stained leaves, geomorphic position, and drainage patterns. Hydric soil indicators included a depleted matrix and distinct redox concentrations. Dominant vegetation consisted of sweet gum, soft rush, hairy buttercup, and bottlebrush sedge. The wetland is surrounded by cow pasture and evidence of cattle movement through the wetland was observed. W002-PEM wetland scored as low quality. W002-PEM has been verified non-jurisdictional by the USACE.

W003-PEM is a 0.01-acre wetland and was documented in the eastern portion of the Project Site, connected to P002. Wetland hydrology indicators included surface water, high water table, and saturation. Hydric soil indicators included a depleted matrix and distinct redox concentrations. Dominant vegetation consisted of broadleaf cattail (*Typha latifolia*) and soft rush. The wetland is surrounded by cow pasture and evidence of cattle movement through the wetland was observed. W003-PEM wetland scored as good/moderate quality. W003-PEM has been presumed jurisdictional by the USACE.

W006-PEM is a 0.09-acre wetland located near the base of Tower 28 in the TL Upgrade Areas. The wetland appeared to be spring fed and is surrounded by horse pasture, with evidence of horses using the wetland as a water source. A wet-weather conveyance (E009) connects an offsite portion of W006-PEM to a forested area to the south, possibly flowing to an offsite reach of S001. Wetland hydrology indicators included geomorphic position and hydrophytic vegetation dominance; however, surface water could also be observed in offsite areas of the wetland, away from the sampling location. Dominant herbaceous vegetation consisted of clustered beaksedge (*Rhynchospora glomerata*), woolgrass (*Scirpus cyperinus*), broadleaf cattail, and soft rush. Dominant saplings included sweet gum and black willow. W006-PEM wetland scored as good/moderate quality.

W007-PEM is a 0.03-acre wetland located in an access road leading to Tower 20. The area is a former quarry and is heavily disturbed. The wetland appeared to be a result of pooling from precipitation. Wetland hydrology indicators included surface soil cracks and geomorphic position. Dominant vegetation included clustered beaksedge, velvet panicgrass (*Panicum scoparium*), and other sedges. W007-PEM wetland scored as low quality. Based on the field assessment, W007-PEM is presumed non-jurisdictional.

Indirect impacts to wetlands would be avoided to the extent practicable through the implementation of an erosion control plan and best management practices (BMPs) to minimize sedimentation in wetlands during construction. Based on current design, TS Modification access road crossings would impact approximately 0.04 acre of two wetlands (W004 and W005), resulting in minor temporary impacts. ROW work would impact approximately 0.09 acre of one wetland (W006) due to non-mechanical vegetation clearing at wetland crossings and temporary matting to minimize soil compaction, resulting in minor temporary impacts. Construction of the BESS would impact approximately 0.08 acre and 0.03 acre of wetland W002 resulting in minor permanent and temporary impacts respectively. Construction use of the temporary laydown area would impact up to approximately 0.03 acre of W001 resulting in minor temporary impacts due to use of matting (Figure 1; Table 2). The Project would maintain SMZs around wetlands to the extent practicable, which would provide an adequate upland vegetative buffer to sustain adjacent wetland functions. Approximately 0.04 acre total of forested wetlands on the Study Area would be temporarily impacted. Approximately 0.16 acres total of emergent wetlands

would incur temporary impacts. Approximately 0.08 acres total of emergent wetland would incur permanent impacts (Table 2).

Table 2. Wetland impacts in the Study Area

Feature Identifier	Cowardin Classification ¹	TVARAM Category (Score) ²	Impacts		
			Duration	Type	Acreage
TS Modification Area					
W004	PFO	Moderate (37)	Temporary	Culvert/Fill	0.01
W005	PFO	Moderate (39)	Temporary	Culvert/Fill	0.03
W006	PEM	Moderate (41.5)	Temporary	Non-woody Vegetation Clearing	0.09
BESS					
W002	PEM	Low (23)	Permanent	Fill	0.08
W002	PEM	Low (23)	Temporary	Non-woody Vegetation Clearing	0.03
Temporary laydown area					
W001	PEM	Moderate (38)	Temporary	Non-woody Vegetation Clearing	≤0.03

¹ Cowardin et al. 1979

² Category and score based on function, condition, and quality: 0–29 = low, 30–59 = moderate, 60–100 = superior. Key: BESS = battery energy storage system; PEM = palustrine emergent; PFO = palustrine forested; ROW = right-of-way; TS = Transmission System; TVA = Tennessee Valley Authority; TVARAM = Tennessee Valley Authority Rapid Assessment Method

OPGW installation at TL Structures 21–27, 31, and 32 would be performed via helicopter without ground access, while TL Structures 20, 28–30, and 33 would require ground-based vehicular access along the ROW. Access identified in the TS Modification Area would be conducted in accordance with BMPs to minimize soil compaction (TVA 2022). This includes use of low-ground-pressure equipment, wetland mats, and dry season work scheduling. Permanent stream crossings that cannot be avoided would be designed to not impede runoff patterns and the natural movement of aquatic fauna. Temporary stream crossings and other construction and maintenance activities associated with the TS Modifications would comply with appropriate state permit requirements and TVA requirements as described in TVA’s BMP manual (TVA 2022). Construction and maintenance of the TS Modification Area would employ manual and low-impact methods wherever possible. Proper implementation of these controls is expected to result in minor, temporary impacts to surface waters.

Appropriate permits including CWA Section 404 General Nationwide Permit or Individual Permit would be required for impacts to jurisdictional waters. Compensatory mitigation would be purchased prior to construction to offset impacts to these surface waters, as well as to offset any impacts to non-jurisdictional wetlands, if such impacts are identified while advancing design, in compliance with EO 11990—Protection of Wetlands. BMPs would be implemented during Project construction and operation.

In consideration of wetland degradation resulting from the proposed activities, all practicable design measures to minimize wetland disturbance have been incorporated. These measures include:

- Siting the project footprint to minimize wetland impacts to the extent practicable;
- Avoiding structure placement in wetlands wherever engineering/electric design could allow;
- Avoiding vehicular traffic across wetlands wherever an alternative exists;

- No mechanized (tip-over) clearing of woody vegetation in wetlands
- Adherence to wetland BMPs during construction of the TL and long-term vegetation maintenance in the ROW including but not limited to:
 - Schedule work activities during dry season work when practicable
 - Use of wood mats, pipe mats, panels or pallets, metal grating, cut-and-cross lay road, pole road, etc. as temporary equipment access
 - Use of low ground pressure equipment or other vehicles with rubberized tracks and wide tires whenever practicable to reduce soil compaction
 - No tire rutting greater than 12 inches
 - Cutting of woody vegetation within 12 inches of ground surface, no grubbing
 - Contours within wetland and wetland buffer are restored to preconstruction elevations if altered
 - All disturbed or exposed soils in wetland would be seeded with an approved and appropriate vegetation mix.
 - Only aquatic approved herbicides shall be used in wetland areas for vegetation maintenance.
- Comply with federal/state wetland regulatory requirements to ensure wetland impacts result in no net loss of wetland resources.

TVA concluded the proposed project comports with EO11990 because:

1. The Project was designed to avoid wetland impacts to the extent practicable.
2. There is no practicable alternative to avoiding the proposed wetland impacts.
3. The Project would conform to all applicable federal and state wetland regulations ensuring no more than minimal impacts to the aquatic environment.
4. With BMPs and compliance mechanisms in place, proposed wetland impacts would be insignificant.

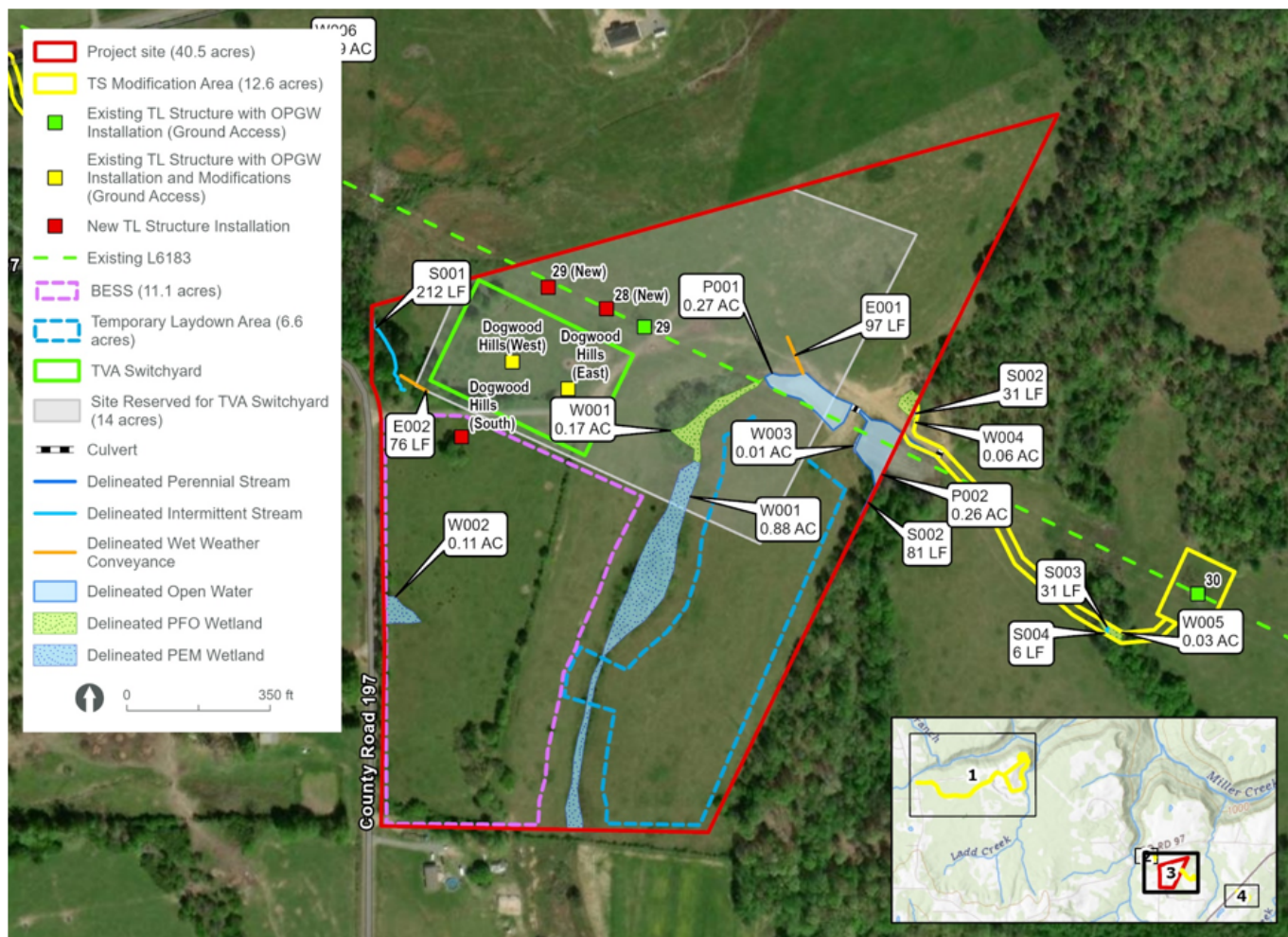


Figure 1. Crawfish Creek BESS Study Area delineated streams, wetlands, and open waters in relation to the preliminary layout of proposed Project components on the Project site and TS Modifications in the central portion of the TS Modification Area (aerial view)