

SWCA



**YOUR ENVIRONMENTAL
SERVICES PARTNER**

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Who we are.



Sound Science. Creative Solutions.®

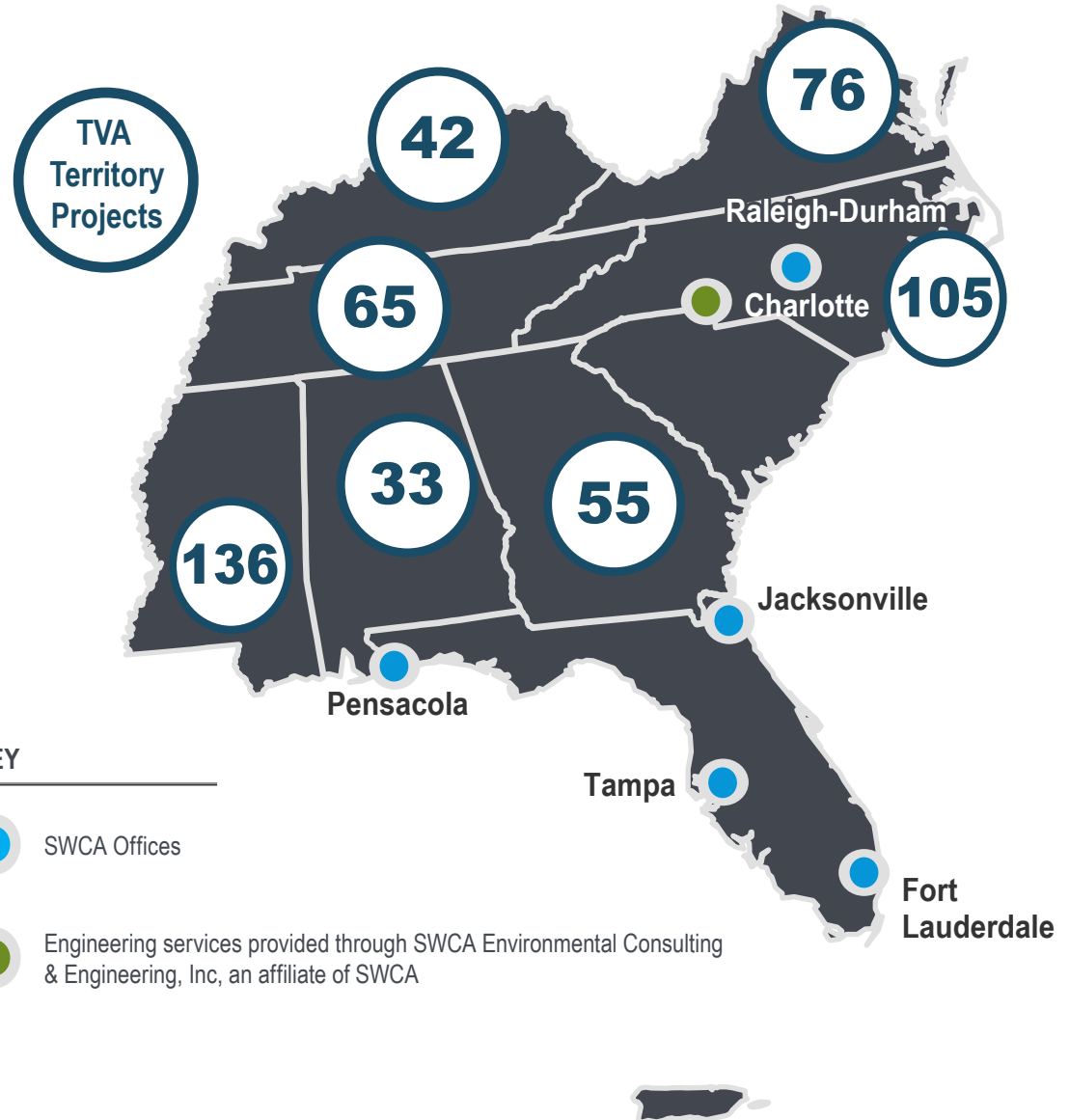
Your environmental partner. SWCA is one of the largest environmental compliance firms in the country, with 39 office locations and more than 1,500 staff.

We focus solely on environmental science, permitting, and compliance. Our continually expanding team of professionals combines scientific expertise with in-depth knowledge of permitting and compliance protocols to achieve technically sound, cost-effective solutions for a full spectrum of environmental projects throughout the United States and its territories.

As an innovative employee-owned firm, we believe in empowering our clients to create and implement projects that support their communities and help build a sustainable future. As a company, SWCA's purpose is to preserve natural and cultural resources for tomorrow, while enabling projects that benefit people today.

SWCA STAFF AND PROJECTS SPAN TVA TERRITORY

Chicago



Project Experience

TVA Economics 316(b) Support for Multiple Fossil Fuel Plants Tennessee



As part of a team, SWCA staff assisted TVA with “122.21(r) reports” for Clean Water Act Section 316(b) compliance for fossil fuel plants in TVA’s service region: Bull Run, Gallatin, Cumberland, and Kingston. SWCA staff estimated the social costs and monetized the social benefits of several alternative entrainment reduction technologies such as cooling towers, fine mesh screens, and alternative water sources. The analyses are completed and pending peer review before submission to the State as part of the facilities’ National Pollutant Discharge Elimination System permit renewal applications.

Clean Line Plains & Eastern Transmission Project

Clean Line Energy Partners; Tennessee, Oklahoma, Arkansas

SWCA worked closely with Clean Line since the inception of the 720-mile-long Plains & Eastern Transmission Project, and operated as an extension of Clean Line’s environmental compliance staff. SWCA’s role in the Plains & Eastern project initially focused on cultural resources, but quickly expanded to include assistance with Endangered Species Act compliance strategy. SWCA became a trusted member of the Clean Line team. SWCA completed field surveys for cultural and architectural resources, aquatic resources, and listed species. With the complex project transitioning from consultations and plan development to large-scale resource surveys across three states, SWCA dedicated a full-time project controls specialist to the project with the responsibility of managing the budgets and tracking the financial status of the project, including burn rate analysis, invoicing, and change order variances. This approach proved invaluable to Clean Line in terms of understanding the status of budgets and scopes, allowing the client to manage its financial responsibilities successfully.

Key Project Success



SWCA successfully completed field surveys for bat habitat on nearly 600 land parcels on time and without issues. This was done through constant and effective communication with landowners, ensuring all concerns were documented and responded to. Our staff also successfully handled a confrontational property tenant, avoiding any escalation.



Northern Bobwhite Solar Facility Land Services Kentucky

Our land development specialists secured 1,500 acres of land through lease options, purchase options, letters of intent, and transmission right-of-way agreements. SWCA also provided a critical issues desktop analysis examining potential natural, cultural, and local permitting red flags.

Project Experience



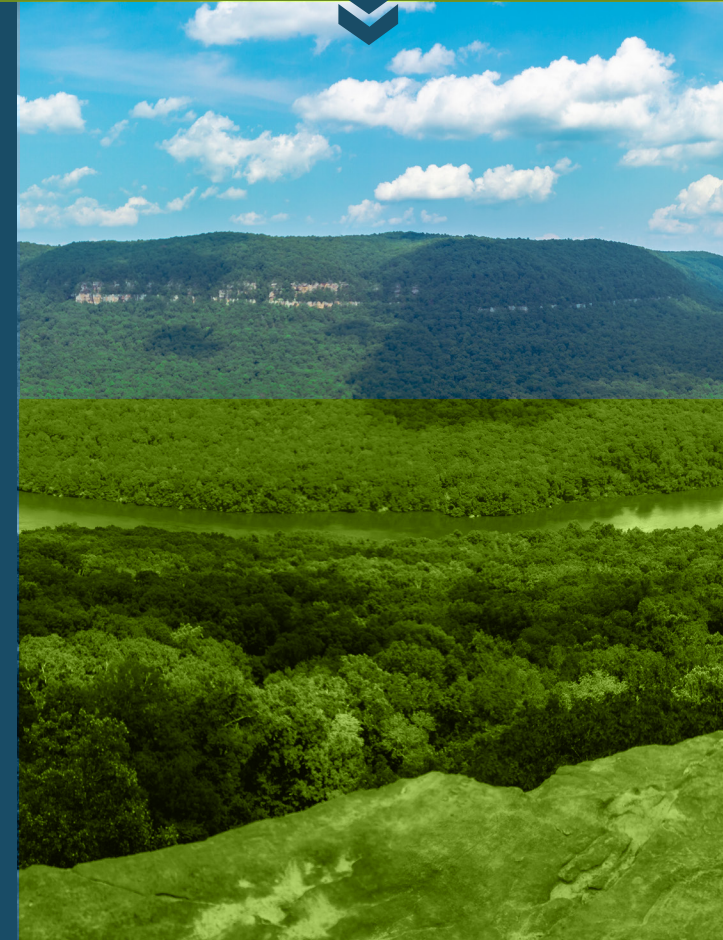
TVA Rockwood Campground and Marina – Roane County *Tennessee*

SWCA staff supported TVA with preparation of an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) following TVA's protocols and reviewing procedures for the Rockwood Campground and Marina Project in Roane County, Tennessee. Under the proposed action, TVA would issue a deed modification, 30-year term easement, and Section 26a permit for development and operation of a commercial marina and campground. SWCA staff supported TVA with evaluation of the no-action and proposed action alternatives, identification of mitigation measures, public comment tracking and response, and development of an environmental administrative record. SWCA staff led the development of the draft EA that was released to the public for review and comment. During the public comment period, over 200 public comments were received. The SWCA staff member was responsible for tracking, categorizing, and preparing responses to each comment and incorporating comment responses into a final EA and FONSI.

TVA FY17-FY21 Economic Development EA Projects *Alabama, Kentucky, Mississippi, and Tennessee*

SWCA staff supported TVA with preparation of 13 separate EAs and FONSI's following TVA's protocols and review procedures as part of the Economic Development InvestPrep program between 2017 and 2021. The projects were completed in Limestone County in Alabama; Allen and Simpson Counties in Kentucky; Pontotoc and Marshall Counties in Mississippi; and Hamblen, Madison, Marshall, Maury, McMinn, Monroe, and Smith Counties in Tennessee. An integral part of TVA's mission is to promote the economic development of the service area. The InvestPrep program provides funds and expertise to counties and local communities to improve their facilities to more successfully compete for new jobs. As such, the projects required coordination with local communities and TVA to successfully clear and permit a variety of industrial development venues.

During the National Environmental Policy Act (NEPA) review process, SWCA staff led the review of existing technical studies and surveys to conduct a data gap analysis. Based on the results of the analysis, and at TVA's request, additional surveys for ecological and cultural resources were conducted to ensure the necessary information required to complete the EAs was available for the resource writers. These additional studies included wetland and waterbody delineations, Tennessee hydrologic determinations, botanical surveys, terrestrial zoology and aquatic ecology surveys (including protected bat habitat surveys), Phase I and Phase II archaeological/architectural surveys, and Phase II archaeological site monitoring. SWCA staff supported TVA with evaluation of the no-action and proposed action alternatives, identification of mitigation measures, development of the EA and FONSI, and development of an environmental administrative record for each project.



Project Experience

TVA Economics Peer Review for Sequoyah Nuclear Plant

Tennessee

SWCA economists completed a peer review of the social costs and social benefits provided in the Benefits Valuation Study and Comprehensive Feasibility and Cost Evaluation Study for the Sequoyah Nuclear Plant. The review focused on assuring that the economics assessment adequately and reasonably supported comparing social costs and social benefits as part of a BTA determination. Specifically, the provided documents were reviewed and evaluated to verify if the methods and calculations were consistent, technically appropriate, and supported the conclusions.



Dogwood Corners Solar Energy Project

Kentucky

SWCA staff are supporting Oriden's development of a 125 MW solar facility and 50 MW storage in an area of approximately 1,380 acres in TVA's territory of southwest Kentucky. The project is proposed to tie into an existing transmission line via a new substation to be developed by TVA. SWCA staff are conducting biological studies including wetlands delineations, habitat assessment, and aquatic ecology assessments. SWCA is also supporting cultural field surveys and conducting impact analyses to satisfy NEPA requirements for the development of a solar facility.



TVA / Browns Ferry Nuclear Thermal Performance Program EA

Alabama

SWCA staff served as the EA lead for a project involving cooling tower capacity improvement modifications as a part of the Browns Ferry Nuclear thermal performance program including cooling tower replacements and associated upgrades. They supported TVA with development of an EA to evaluate the potential impacts associated with the project alternatives. This included evaluation of the no action and proposed action alternatives, identification of mitigation measures to reduce potential impacts of the proposed actions, and preparation of the FONSI for the project.

Services Overview

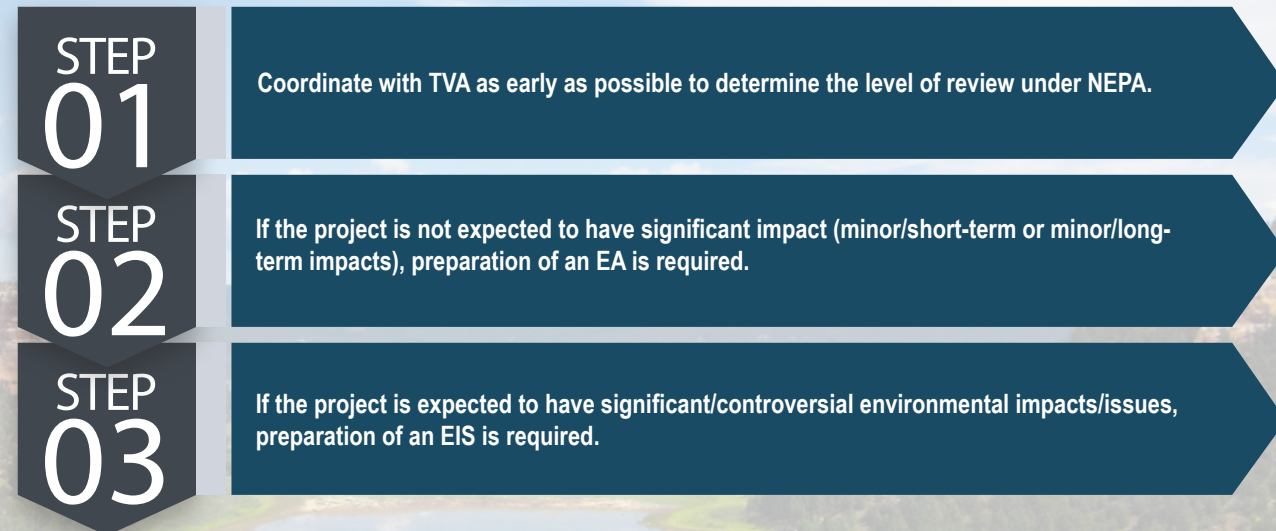


SERVICES WE OFFER:

- NEPA Training
- Third-Party NEPA Consulting and Technical Reviews
- NEPA Administrative Records
- Environmental Assessments
- Environmental Impact Statements
- Public Involvement, Facilitation, and Comment Analysis
- Revisions and Master Leasing Plans
- On-demand Courses for Agency and Industry Clients
- Leasable Mineral Development Training

SWCA specializes in **NEPA compliance** consistent with state and local regulatory processes.

We can help TVA conduct environmental reviews in accordance with NEPA which includes the following high-level steps:



As a federal agency, TVA adheres to the requirements of Executive Order (EO) 11988, Floodplain Management. The EO is not intended to prohibit floodplain development in all cases, but rather to create a consistent government policy against such development under most circumstances (United States 1978). The EO requires that agencies avoid the 100-year floodplain unless there is no practicable alternative.

Under Section 26a of the TVA Act of 1933, TVA approval must be obtained prior to the construction, operation, or maintenance of any project affecting navigation, flood control, or public lands or reservations within the Tennessee River Watershed. This includes land-based solar panels that are proposed within either the 100-year floodplain or the flood storage zone (normally the 500-year floodplain) or within any flowage easement area.

SWCA recognizes the interplay between NEPA and state and local regulations. We have testified before several state utility commissions, completed many state-specific permitting documents for large infrastructure projects, led and supported the acquisition of locally based discretionary permits, and more. So while NEPA may tend to get most of the attention, we are well versed in taking a comprehensive permitting approach and adding the necessary resources to make sure each and every permit tells the same tale while fitting into the overall project schedule.

Services Overview



Sound Science. Creative Solutions.®

- **Environmental Planning and Permitting**

SWCA staff are leaders in environmental planning and permitting. We provide NEPA compliance, Clean Water Act Sections 404/401/10 permits, National Historic Preservation Act Section 106 compliance, and U.S. Fish and Wildlife Service support.

- **Environmental Compliance**

Our environmental compliance services include environmental monitoring and inspection, environmental program/project management, environmental inspection and monitoring, environmental training and reporting, and stormwater pollution prevention plans, inspection, and reporting.

- **Economic Analysis and Environmental Justice**

SWCA economists, and permitting experts are uniquely positioned to help navigate emerging economic and environmental justice challenges. Our services and capabilities include environmental impact characterization, community characterization, public outreach and communication, alternatives assessment, social benefit cost analysis, and rapid E.J. screens.

- **Biological Surveys**

We provide botanical and wildlife surveys, threatened and endangered species focused and protocol-level surveys, biological assessments and ESA consultation, Tennessee hydrologic determinations, and wetland delineation and mitigation.

- **Bat Studies**

Protection of bat species such as the Indiana bat and northern long-eared bat is a significant topic among permitting agencies, conservation groups, and project developers. SWCA specializes in assessing the unique characteristics of a project and providing support through the entire development process, including site/risk assessment, planning, surveys, consultation, permitting, mitigation, construction inspection, and post-construction monitoring.

- **Land Services**

We actively work with our clients to identify optimal sites for their projects with all goals taken into consideration. A big-picture project understanding, coupled with the identification of potential risks, can reduce and minimize additional costs and expensive delays. We help clients minimize project re-start and rework by anticipating and addressing challenges during site identification, assessment, and selection.

- **Air Quality/Greenhouse Gases**

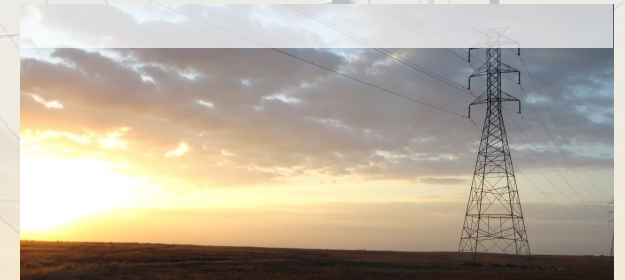
We are proficient at identifying sources of air emissions and quantifying the results using engineering principals and, as appropriate, emission factors. We provide compliance development, auditing, emissions inventories, and reporting to appropriate regulatory agencies. We are also at the forefront of emerging efforts related to greenhouse gases emissions.

- **Noise Impact Analysis**

SWCA analyzes the potential for projects to have impacts due to increased traffic, operational noise, and construction. SWCA staff understand how to evaluate existing noise conditions, regulatory requirements, and evaluate the effect of project-related increases to ambient noise levels for the construction and operational phases in the context of applicable noise standards.

- **Cultural Resources Surveys**

Our cultural resources specialists are well versed in cultural resources laws and regulations. Projects may run into evidence of the past: artifacts, sites, structures, landscapes, or objects that remain from previous human activity. SWCA's cultural resource management services help recognize, assess, and preserve cultural resources while avoiding or minimizing their impacts.



The Solar Development Process



Sound Science. Creative Solutions.®



Why Choose SWCA



Sound Science. Creative Solutions.®



INDUSTRY RECOGNITION

SWCA is consistently ranked among the top environmental firms nationwide.

ENR RANKINGS

2022 TOP 500 DESIGN FIRMS

- Ranked #126 nationally

2022 TOP 200 ENVIRONMENTAL FIRMS

- Ranked #84 nationally
- Ranked #17 nationally among purely environmental firms

2022 REGIONAL TOP DESIGN FIRMS

- Ranked #120 overall in the Mid-Atlantic region (Delaware, D.C., Maryland, Pennsylvania, Virginia, and West Virginia)
- Ranked #125 overall in the Southeast

What clients are saying...

“ SWCA and specifically Lucas Coleman and Mike Bolan are fantastic to work with. Professional, insightful, creative and attentive are just a few words to describe the type of people they are and their approach to their craft. Thanks for all of the help the entire SWCA team provides. ”

– Caleb Cates, Business Developer
Aurora Solar, LLC
Avangrid Solar Site Development Georgia Prospect



REPEAT
CLIENTS

“ The team Antero is appreciative of Drew and Kyle's efforts on getting this very large and very last minute mist net survey effort completed before the summer survey deadline. I know they worked incredibly hard to get everything approved and all the on-the-ground efforts conducted; just want you to hear how grateful and fortunate we are that they (and the rest of the folks who carried this across the finish line) are an extension of the Antero team. ”

– Tyler Thigpen, Environmental & Regulatory Manager
Antero Resources Corporation
Bat Mist Net Surveys and USFWS Consultation



TVA TERRITORY
PROJECTS

“ Xcel Energy Siting & Land Right had the distinct pleasure of working with SWCA Environmental Consultants. We have utilized their services on four major 345kV electric transmission line projects located in the Southeast New Mexico region. Their experience and understanding of the NEPA process and permitting requirements has substantially aided to a smoother permitting process. We have been able to rely on SWCA's performance as the work is completed thoroughly, promptly and with the utmost integrity. ”

– Sean Frederiksen, Siting & Land Rights Agent
Xcel Energy
BLM Worland Field Office, Wyoming



GENERATION
PROJECTS NATIONWIDE