

Key Facts

Size

Up to 1,540 megawatts, enough to reliably power approximately 1.5 million homes

Technology

Natural gas-fueled combined-cycle generating station

Location

Near the existing Tenaska Virginia Generating Station, near the intersection of Branch Road and Rock Lane

Footprint

50 acres of the 425-acre site, with additional land acquired for conservation

Project Schedule:



ExpeditionGeneratingStation.com



Community@ExpeditionGenerating.com



Tenaska, with a presence in Fluvanna County for more than 20 years, is considering an additional natural gas-fueled power plant in the area. Similar to the existing Tenaska Virginia Generating Station, this facility would add reliability to the regional electric grid amid growing power demand, as well as generate tax revenue, jobs and other local economic benefits.



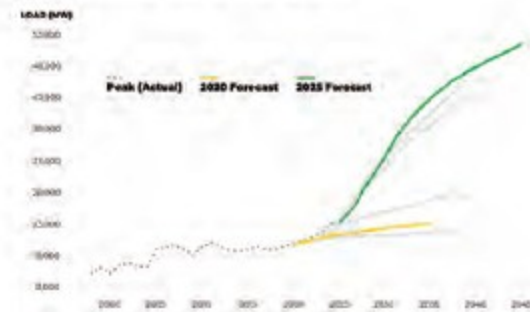
Growing Power Demand

Natural gas is a clean fuel for dispatchable and reliable power generation. The Expedition Generating Station will be one of the lowest-emitting dispatchable generating assets in Virginia, PJM Interconnection and the nation.

- The regional grid operator – PJM Interconnection – identified the Expedition Generating Station among 51 projects deemed critical to come online to maintain the reliability of the electric grid. The project is now being fast-tracked for the transmission interconnection process through PJM's Reliability Resource Initiative.
- About half of Virginia's energy capacity currently comes from natural gas. According to the Virginia Department of Energy, natural gas will need to continue to play a significant role in meeting Virginia's energy needs.¹
- The 2022 Energy Plan calls for an all-of-the-above approach to meet unprecedented demand while keeping energy costs reasonable. Natural gas will be a critical part of the solution, and Tenaska is well suited to support that.²

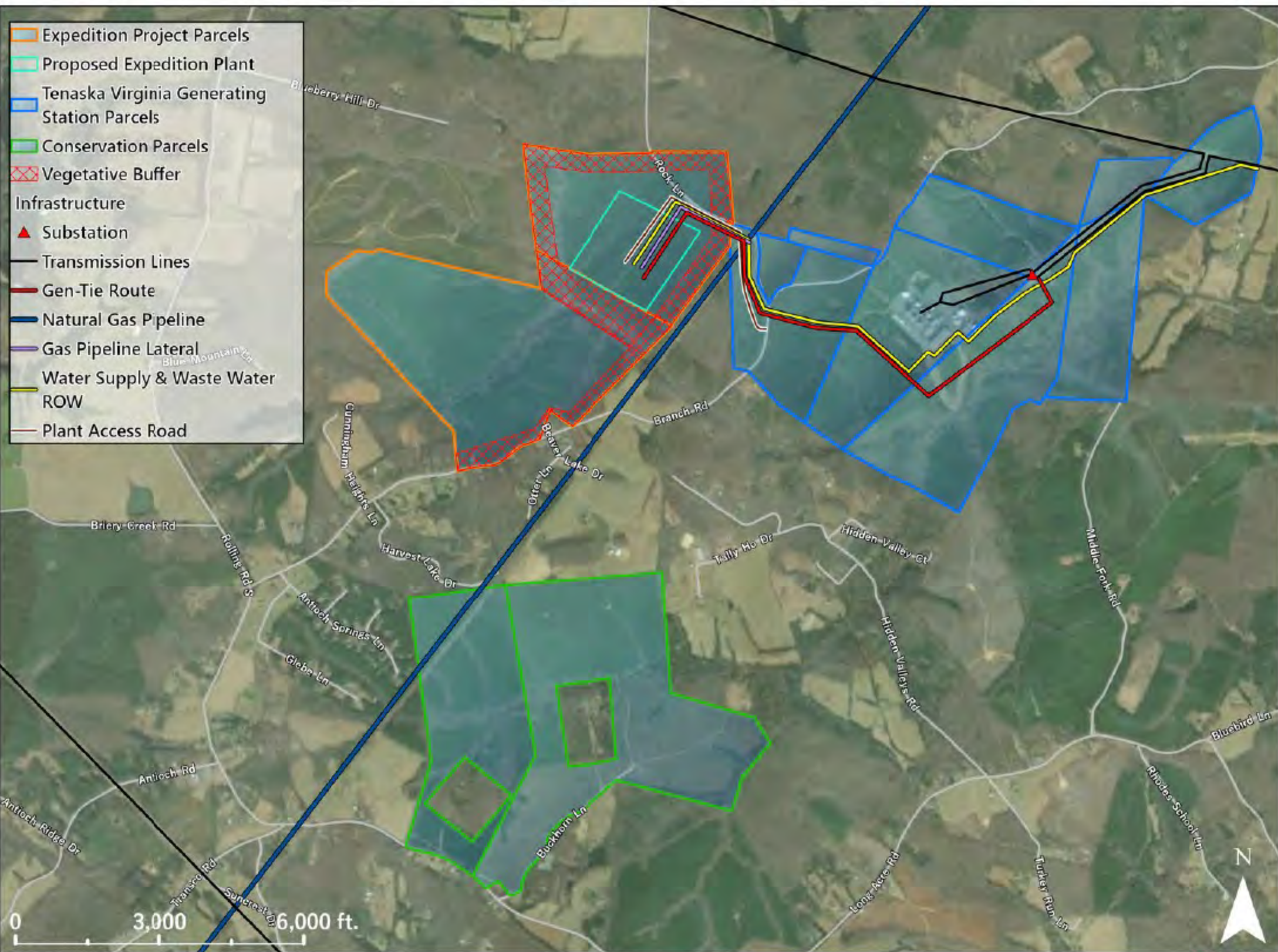
PJM Load Growth Forecasts

2020-2025, Dominion Zone, Summer Peak (MW)



1. <https://energy.virginia.gov/renewable-energy/naturalgas.htm>

2. <https://energy.virginia.gov/energy-plan.shtml>



Tenaska Virginia Generating Station

For decades, the existing Tenaska Virginia Generating Station has provided stable and reliable economic benefits to the community.

- Approximately 1,400 jobs were created over the 20-month construction period, with approximately \$45 million (2004 dollars) in wages
- Operations jobs for 29 employees and, in 2024, \$9.8 million in employee salaries and payments to local contractors and vendors
- \$34.9 million in local property taxes to date
- Support for various local efforts and organizations, either through volunteer hours and/or monetary support, including \$100,000 in college scholarships



TENASKA

Tenaska has been a good business neighbor in Fluvanna County for more than 20 years. We take pride in developing, building, owning and operating energy generating facilities that are safe, environmentally responsible and community-minded.

Highlights from across the Tenaska fleet:



\$13.4 million
tax revenue paid in 2024
to local governments
and schools



200 well-paying jobs
at plant locations in
nine states



\$1 million+
scholarships provided to
college-bound students



22 National Safety
Council awards
received in 2024



6 VPP Star worksites
covering over 81% of
Tenaska Generation
employees



80% lower
industry illness and
injury rates based on
3-year average

Expedition Generating Station

A 2025 economic impact study¹ from Mangum Economics projects a significant positive impact from the Expedition Generating Station.



Tax Revenue to Fluvanna County

\$247.7 million in tax revenue to Fluvanna County over 30 years of operation

- Roughly \$14.3 million/year during the first 5 years of operation
- \$8.3 million in annual property tax revenue (based on 30-year average)



Construction

\$20.3 million in economic output² in Fluvanna County, including:

- 66 direct and 50 indirect/induced job years (full-time equivalents), with \$7.5 million in wages³
- \$9.7 million in sales and use taxes



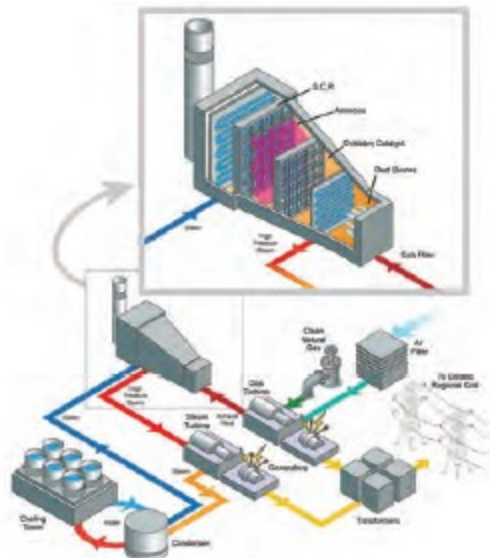
Operations (Annually)

\$75.2 million in annual economic output² in Fluvanna County, including:

- 29 direct and 53 indirect/induced job years (full-time equivalents), with \$8.8 million in wages
- \$8.3 million in annual property tax revenue (based on 30-year average)

1. Project Expeditions Economic & Fiscal Contribution to Fluvanna County and to the State of Virginia, Prepared for Tenaska by Mangum Economics, August 2025.
2. Economic output is all economic activity in a local economy, inclusive of wages and taxes.
3. Job figures are subject to change based on availability of in-state labor.

Effective Emissions Controls



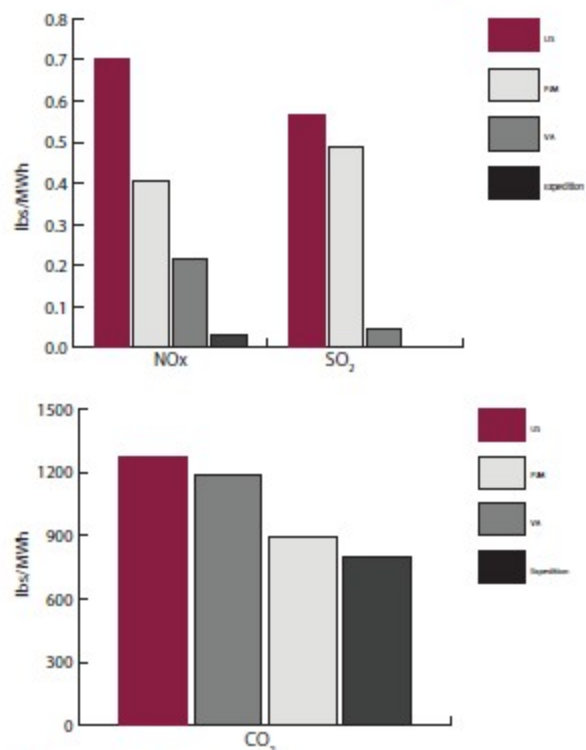
The emissions most commonly associated with natural gas-fueled plants are nitrogen oxides (NOx) and carbon monoxide (CO).

However, with the state-of-the-art design and the use of best available control technology (BACT), emissions will be limited. BACT will include oxidation catalyst and selective catalytic reduction (SCR), in addition to ultra-low NOx burners and water injection, for emissions control.

Ultra-low sulfur diesel (ULSD) will be used minimally as a backup if natural gas supply is challenged.

Lower Emissions Than Industry Peers

Expedition Anticipated Actual Emission Rates* vs. U.S., PJM Interconnection and VA Fossil Plant Averages (2023)



Data Source: U.S. Environmental Protection Agency eGRID2023
 * Expedition data assumed to equal that of the Tennessee Westmoreland Generating Station (similar configuration and control equipment)

Responsible Emissions

The Virginia Department of Environmental Quality has stringent requirements related to air quality and natural gas power plants that are intended to protect human health and the environment.

Expedition will be required to demonstrate:

1. That it is employing best available control technology (BACT) to minimize emissions.
2. That emissions from the plant will not cause off-property concentrations to exceed each of the National Ambient Air Quality Standards (NAAQS) below, when including other specific surrounding sources and existing background concentrations.

Pollutant		Standard	Averaging Time	Level
Carbon Monoxide (CO)		Primary	8-hour	9 ppm
			1-hour	35 ppm
Nitrogen Dioxide (NO ₂)		Primary	1-hour	100 ppb
		Primary & Secondary	Annual	53 ppb
Ozone (O ₃)		Primary & Secondary	8-hour	0.070 ppm
Particulate Matter	PM10	Primary & Secondary	24-hour	150 µg/m ³
		PM2.5	Primary	Annual
	Secondary		Annual	15 µg/m ³
	Primary & Secondary		24-hour	35 µg/m ³
Sulfur Dioxide (SO ₂)		Primary	1-hour	75 ppb
		Secondary	Annual	10 ppb

All areas of Virginia, except for counties in the DC Metro area and a portion of Giles County, already comply with all of the NAAQS. Expedition will not change that.



1. Subject to change based on final project design, permits etc.

The diagram illustrates the combined-cycle generation process. It features a **Heat Recovery Steam Generator** (HRSG) that receives **High Pressure Steam** from a **Gas Turbine** and transfers heat to a **Water** loop. This loop includes a **Condenser** cooled by **Cooling Towers** and a **Steam Turbine** that generates **Steam**. The **Gas Turbine** is fueled by **Clean Natural Gas** and uses **Air Filter** units. Both the **Gas Turbine** and **Steam Turbine** are connected to **Generators**, which then feed into **Transformers** and finally to the **Electric Regional Grid**. The process is a closed-loop system for water, with steam being recycled back into the condenser.

The steam cycle used in the combined-cycle process requires highly purified water to ensure optimal and long-term operation. Water used to make steam is treated before it is used and again before leaving the site.

1. Subject to change based on final project design, permits etc.

A minimum of a 300' vegetative buffer will completely surround the facility, dampening the noise.

Combustion turbine generators and other major equipment will be housed in buildings or enclosures to limit sound levels.

Exhaust stacks will be equipped with silencers.

Low noise fans will be used on plant heat exchangers.

Emissions control technology will have a dampening effect on noise.

The gas turbine air inlets will have silencers.

Memorandum

To: Tenaska, Inc.**Date:** August 19, 2025**Re:** Expedition Combined Cycle Power Plant – Summary of Acoustical Modelling

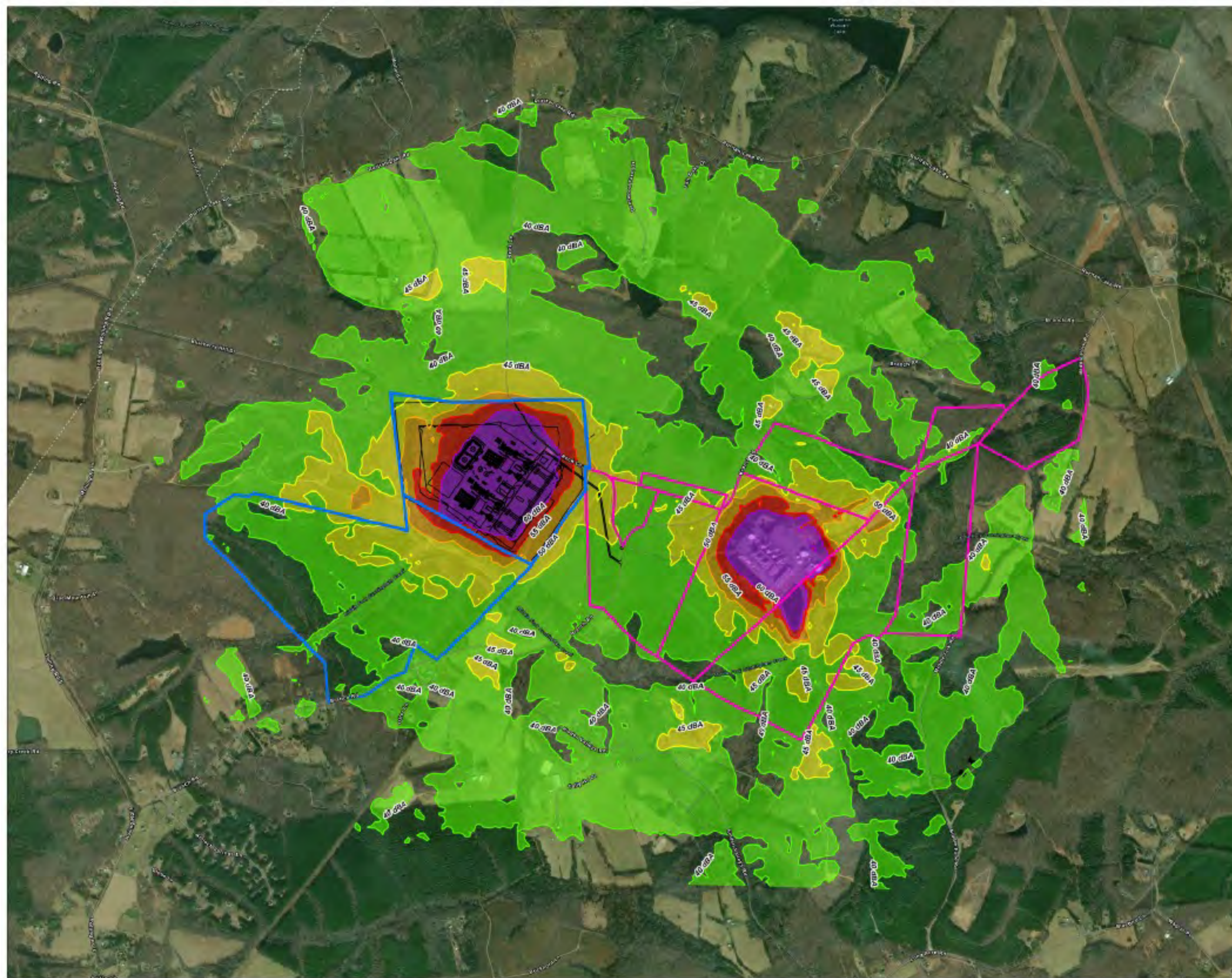
For an advance assessment of the sound emissions from the Expedition power facility, before it is built or fully designed, it is necessary to use predictive acoustical modelling. The goal is to determine the combined sound of the existing Tenaska Virginia Generating Station and the proposed Expedition facility.

In the case of the existing facility, it was possible to use past measurements of its sound emissions, gathered around the fence line by others, as input to the computational acoustical model. For the new Expedition facility, the inputs to the model consist of the manufacturers' published sound emission levels for all the individual major items of equipment at the site: gas turbines, steam turbines, generators, transformers, cooling fans, pumps, etc., supplemented by past measurements close to similar items of equipment, gathered by HGC Acoustics at similar operating power plants across North America.

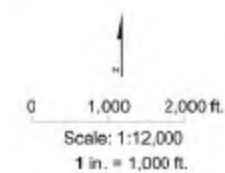
The model itself is like a three-dimensional CAD drawing in a computer, but includes the sound emission levels for each item of equipment, and the acoustical characteristics of the site geometry and the surrounding topography. The computational acoustic calculations are done in accordance with international Standard ISO-9613-2, which is a widely-accepted method for calculating outdoor sound propagation.

The results of the analysis are predicted sound levels in A-weighted decibels ("dBA") and are presented as contours of equal sound level in the vicinity surrounding the existing and proposed power facilities. The contours or zones represent the sound only from the two facilities, excluding background sounds such as wind in the trees, insects and birds, and road traffic.

The accompanying "heat map" shows how sound dissipates in a "worst case" scenario. The predicted sound levels demonstrate compliance with the county standard of 60 dBA or less at the fence-line of the facilities and 50 dBA or less at any neighboring homes for both the existing Tenaska Virginia Generating Station and the proposed Expedition project.



- Legend**
- Expedition Project Parcels
 - Tenaska Virginia Generating Station Parcels
 - Preliminary Site Plan
 - Noise Contours (dBA)**
 - >60
 - 55-60
 - 50-55
 - 45-50
 - 40-45



Noise Contours (dBA)
Expedition Generating Station
Fluvanna County, Virginia

