



Pumped Storage Hydro Study

PROJECT OVERVIEW

February 2023



Pumped Storage Hydro Study



TVA is evaluating multiple areas for Pumped Storage Hydro sites in the Jackson County area.

Currently, TVA is in the study phase – this evaluation will assess land, environment, and community impacts to help inform TVA planning and future construction.

Benefits of Pumped Storage Hydro



Rates

Lowest cost mature option for long-duration storage. Reduces risk in regulations, and fuel cost



Reliability

More energy storage is needed for continued electric reliability and to store power from traditional and renewable energy sources



Job Opportunities

Job opportunities associated with construction and ongoing facility operations and maintenance



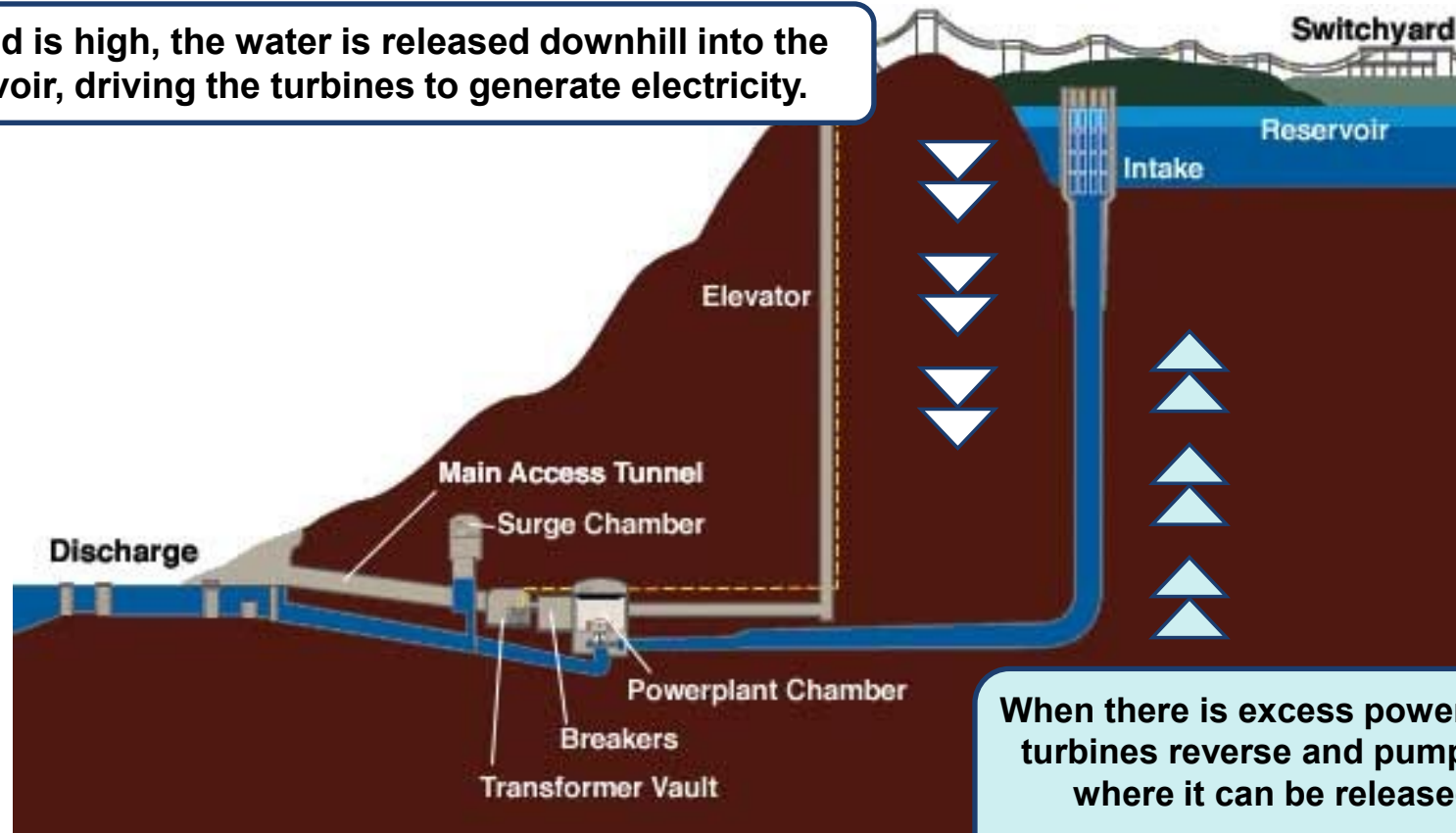
Environmental Impact

Enables low-carbon energy generation, through additional solar, nuclear, and carbon capture technologies

What is Pumped Storage Hydro?

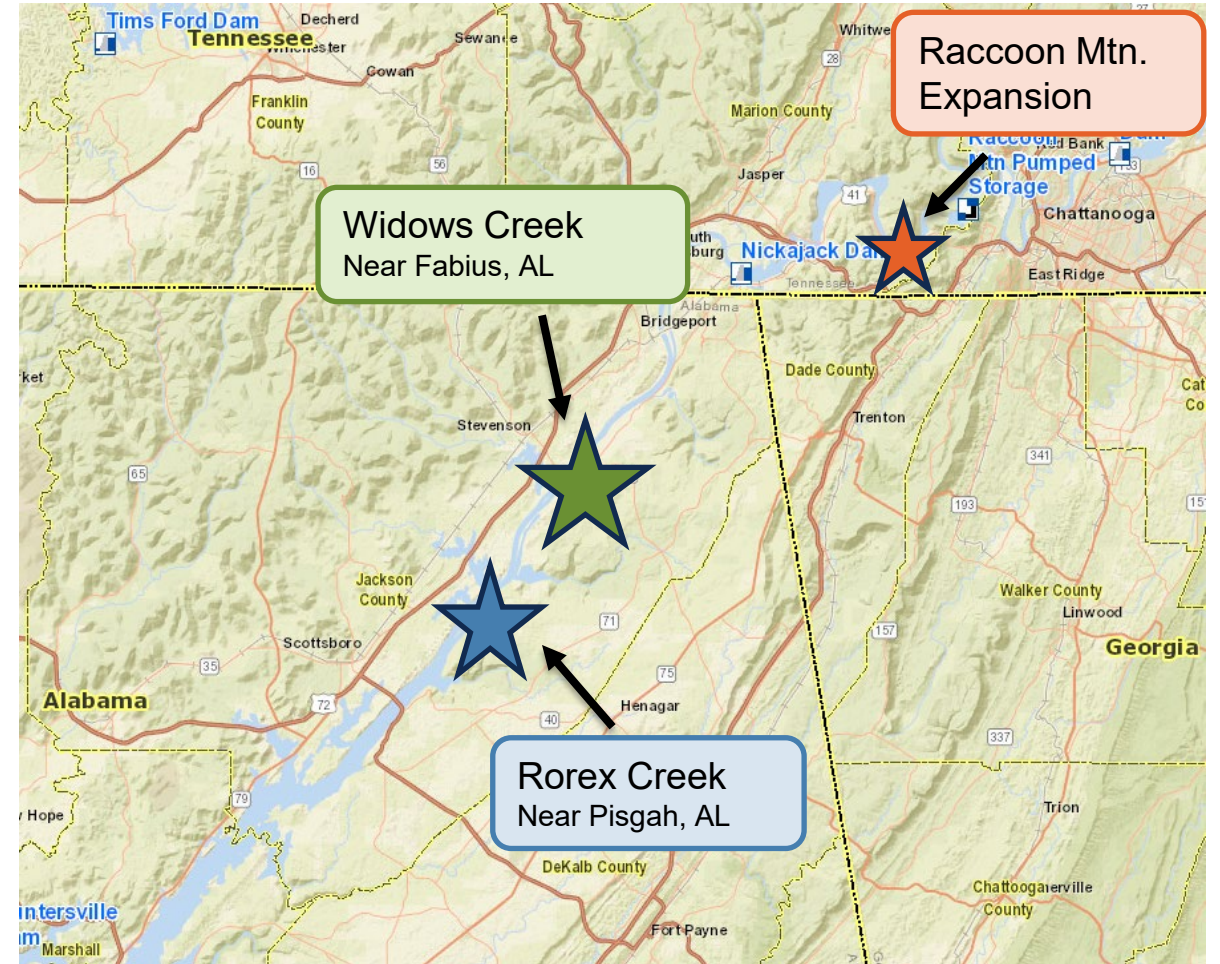
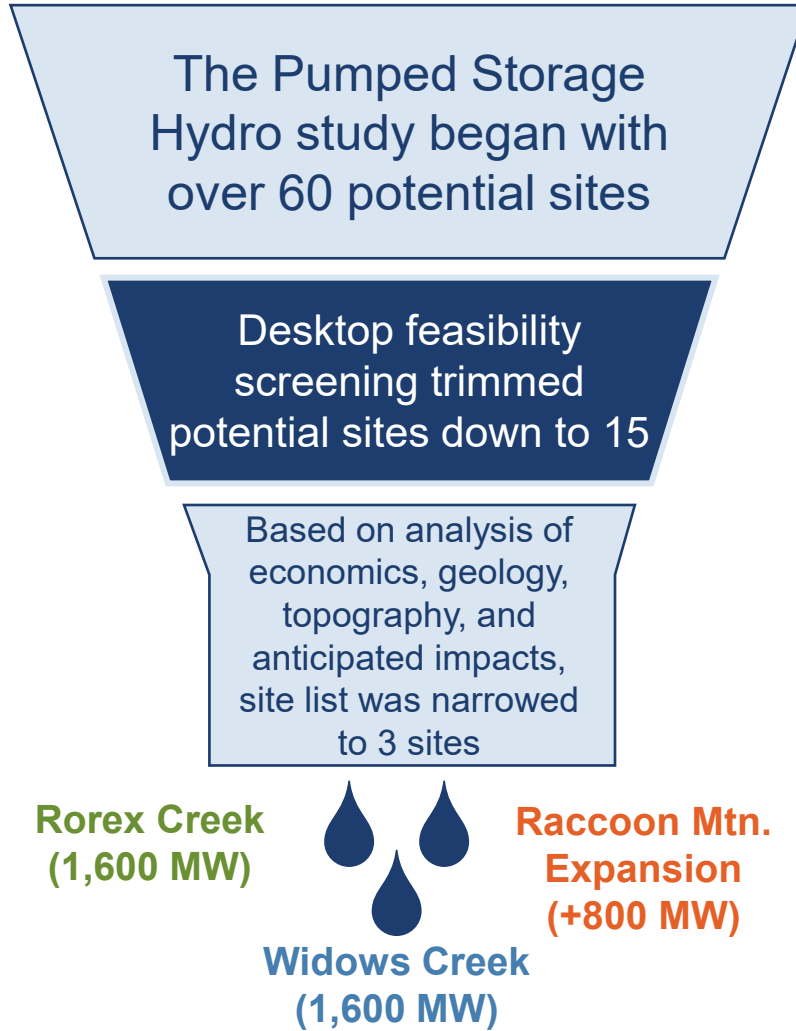
The pumped storage concept is simple. Water is pumped to a reservoir at a high elevation, and then released to generate electricity when additional power is needed by the TVA system.

When demand is high, the water is released downhill into the lower reservoir, driving the turbines to generate electricity.



When there is excess power on the grid and demand is low, the turbines reverse and pump water back to the upper reservoir where it can be released again when demand requires.

How did TVA choose Jackson County?



Local and Regional Benefits



A pumped storage plant is anticipated to be a \$2 billion to \$4 billion investment for TVA. Many local and regional benefits would occur as result of the construction.



Local and Regional Economy

- Potential for 1,000 temporary construction and ~60 permanent facility jobs where project sites are identified
- Facility will generate “In-lieu of tax” payments to local government



Local Infrastructure

The project would bring local infrastructure improvements



Improved Recreational Opportunities

TVA would work with the community and planners to incorporate recreational opportunities into the facility. This could include hiking and biking opportunities, camping and picnic areas, trail connections, habitat improvements, and improved river access.

Next Steps in the Study

After Today's Meeting...

We will contact some property owners to arrange access to individual parcels for study purposes

Late Spring 2023

TVA will begin the National Environmental Protection Act (NEPA) Environmental Impact Statement (EIS) process

Late Spring and Summer 2023

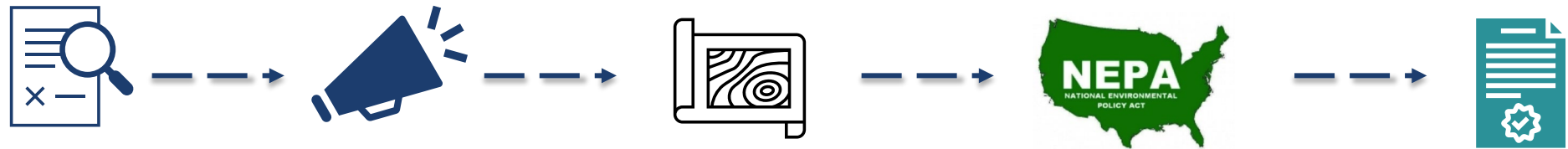
We anticipate field crews will begin studies late spring and summer

The study is anticipated to take 18 to 24 months. TVA will use study results to determine if a pumped storage facility project will be needed, and if so, where.



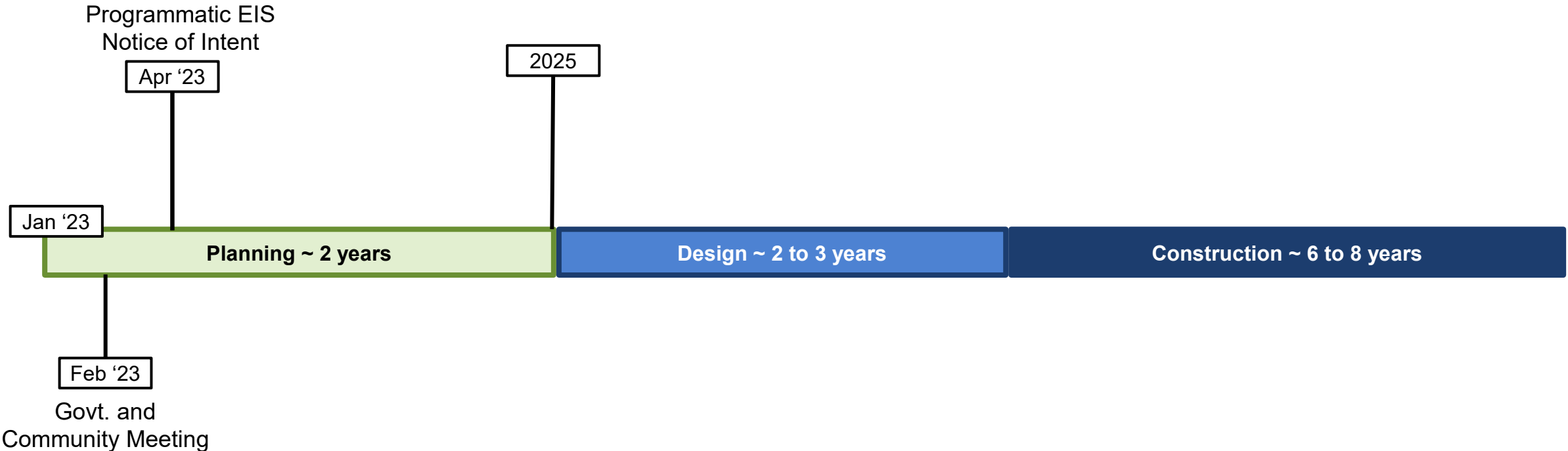
Process and Proposed Timing

As a part of this study, TVA will conduct land records research and contact landowners to request access rights for environmental and geological studies. The typical process we follow is outlined below:



Process Step	1 Title research	2 Individual landowner outreach	3 Property access for field studies	4 TVA completes NEPA process and decisions on potential site	5 TVA makes decision on whether to move forward with project
Anticipated Timing	Feb 2023 – Jun 2023		Jul 2023 – Sep 2024	2025	2025-2026

Potential Pumped Storage Project Timeframe



Notes:

- **FOR ILLUSTRATIVE PURPOSES ONLY.** All dates in proposed schedule are subject to change based upon determinations in the planning phase.
- Milestones reflect potential completion dates.

Frequently Asked Questions



Can I contact TVA about considering my property?

The location of pumped storage facilities requires special consideration for the location to be viable. TVA has identified areas in which a pumped storage facility would work. TVA will contact you if your property is of interest for study purposes.



When will we be notified if our property is in the study area?

We will begin contacting property owners to discuss access to conduct studies after Feb. 23, 2023.



Why can you not tell us the exact location of the properties?

TVA is studying multiple alignments within each of the study areas to consider environmental, geological, and societal aspects in the final alignment selections. Our studies will help to determine which, if any, parcels will be selected for final alignment of the facility.



How much land will TVA be looking to purchase?

At this time, TVA is conducting studies of potential sites that may be suitable for a possible pumped storage facility. The size of such a facility can range from 1,000 acres to 2,000 acres.



Would the new lake be open for fishing?

Fishing, boating and swimming activities are not allowed at pumped storage facilities because of dangers from the very high fluctuations in daily water levels.

Frequently Asked Questions



Hasn't TVA studied these areas before?

TVA conducted studies in the Pisgah area in the 1970s and again in the 2000s. Differences in potential design now allows us to consider different alignments, which requires updated information.



Will this be just another study?

The results of our studies will help TVA decide the need for long term storage, such as pumped storage, as we build the energy system of the future.



What is the purpose of this community meeting?

Many landowners will be contacted to participate in the study and the public will see field personnel in the area this summer. As we begin the study, we know the public will have questions. This is a wonderful opportunity for members of the public to talk with, and hear answers directly from, the TVA study team.



How will the study impact decisions on Bellefonte?

This study is only to determine the potential for a pumped storage facility in Jackson County. The disposition of Bellefonte is being considered under a separate study.



When would TVA consider purchasing properties?

The study period is anticipated to take 18 to 24 months. TVA will complete studies before deciding if a new pumped storage facility will be needed or built at a specific potential location.

TVA

**TENNESSEE
VALLEY
AUTHORITY**