

## **FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY**

### **APPROVAL OF ILLINOIS COAL LEASE MINE PLAN - SUGAR CAMP MINE NO. 1**

The Tennessee Valley Authority (TVA) proposes to approve Sugar Camp Energy's plan for the No. 1 Mine, which would excavate TVA-owned coal in Hamilton County, Illinois. Sugar Camp Energy obtained rights to mine this coal through its affiliate, the Ruger Coal Company, which holds a lease with TVA for underground mining of the Springfield No. 5 and Herrin No. 6 coal seams in southern Illinois. The lease requires TVA to approve the mine plan before its implementation by Sugar Camp. TVA's approval is a federal action subject to the requirements of the National Environmental Policy Act (NEPA). TVA has, therefore, prepared an environmental assessment (EA) of the potential impacts of the mine plan approval; this EA is incorporated by reference.

A portion of the coal that Sugar Camp proposed to be mined as part of No. 1 Mine is not owned by TVA. TVA has no decision or permission-granting authorities over this portion of the mine. Although TVA does not own any surface land overlying its coal, TVA must evaluate impacts to the land caused by mining underneath it. The State of Illinois has regulatory authority (i.e., state primacy) over the entire Sugar Camp No. 1 Mine; the TVA lease requires additional approval by TVA for actions on its mineral rights land.

TVA's proposed action would result in the mining of approximately 396,250 tons of TVA-owned coal and the following activities on land overlying TVA-owned coal:

- Construction of a 20-foot-diameter ventilation bleeder shaft.
- Surface disturbance of about 5 acres within a specified 17-acre area for construction of surface facilities associated with the bleeder shaft. These facilities include an access road connecting the shaft site to County Road 850N, two culverts (one 30-inch and one 18-inch diameter) underneath the connecting access road, three soil piles, a laydown yard for construction equipment, and a drilling fluid recirculation pond.
- The subsidence (sinking of the surface from underground mining) of about 2,600 acres of land overlying the TVA-owned coal.

### **Alternatives**

The EA evaluates two alternatives for the proposed actions, the No Action Alternative and the proposed Action Alternative.

Under the No Action Alternative, TVA would not grant approval for Sugar Camp Energy's proposed mine plan. Consequently, Sugar Camp Energy would only mine that portion of the mine within Franklin County that does not include TVA-owned coal. Environmental conditions on land overlying TVA-owned coal would not change. Adoption of this alternative would not meet Sugar Camp Energy's objective to expand the underground longwall mine into Hamilton County; it would also not meet TVA's objective to obtain lease royalty payments from the mined coal.

Under the Action Alternative, TVA would approve Sugar Camp's mine plan that would result in impacts to air quality, methane emissions, water supply, groundwater, surface water, prime farmland, floodplains, wetlands, terrestrial wildlife and plants, aquatic ecology, natural managed areas, transportation, utilities, cultural resources, and local noise levels. Impacts to these resources resulting from surface disturbance and subsidence would be mitigated by Sugar Camp Energy through onsite mitigation activities that are required as a condition of Mine Permit No. 382 by the State of Illinois. Sugar Camp Energy would be responsible for the design, construction, vegetation restoration, and for all mitigation activities, including monitoring.

### **Impacts Assessment**

The EA concludes that the Action Alternative would not affect recreational opportunities, navigation, or Wild and Scenic Rivers. Undertaking the proposed action would not result in major changes to air quality, methane emissions, water supply, groundwater, surface water, prime farmland, floodplains, wetlands, aquatic ecology, natural managed areas, transportation, utilities, or local noise levels.

Most of the project site has been previously disturbed for residential development and agricultural use, and no uncommon or high-quality terrestrial plant communities occur on the site. Although a varied community of terrestrial animals uses the mixture of habitats on the project site, the effects on wildlife from the habitat loss of about 5 acres of land in the bleeder ventilation shaft construction area would be insignificant, as similar habitats occur in abundance within the surrounding landscape.

No adverse significant impacts to endangered or threatened species are anticipated as a result of construction, subsidence, or mitigation activities because little habitat to support listed species exists on land overlying TVA-owned coal. Habitat for the Indiana bat, federally listed as endangered, does exist on land overlying TVA-owned coal; any trees that are removed for stream drainage mitigation activities would be replaced according to Sugar Camp's U.S. Fish and Wildlife Service (USFWS)-approved Indiana Bat Protection and Enhancement Plan. The applicant has coordinated with the USFWS and the State of Illinois concerning potential impacts to threatened or endangered species; USFWS approved the mine plan and determined that this project, with implementation of the bat protection and enhancement plan, is not likely to adversely affect federally listed threatened or endangered species. The USFWS concurred with TVA's determination that the project, with implementation of the bat protection and enhancement plan, is not likely to adversely affect listed species in a response dated May 17, 2011.

Archaeological surveys indicated that no archaeological sites exist within the ventilation bleeder shaft construction area where surface disturbance would occur. The Illinois State Historic Preservation Officer (SHPO) has determined that subsidence does not affect archaeological sites in general, because the sites subside uniformly with the underlying clay ground layer.

Two structures, a culvert and a house, are potentially eligible for listing in the National Register of Historic Places. The house, Cutright Structure No. 16405505, would be protected from adverse effects by utilizing a presubsidence damage minimization plan. The culvert, Works Progress Administration (WPA) No. 5711, would likely be adversely affected by subsidence because of its location and condition. TVA executed a memorandum of agreement on May 3, 2011, with the Illinois SHPO to resolve these adverse effects.

## **Public and Intergovernmental Review**

Public comments were received by the State of Illinois during the Section 401, National Pollutant Discharge Elimination System (NPDES), and Section 404 permitting processes. Comments included concerns about groundwater, water pollution, and the flooding of farmland.

The U.S. Army Corps of Engineers held a public comment period for Sugar Camp's Section 404 application from May 16 to June 16, 2008. The Illinois Environmental Protection Agency (IEPA) held a public meeting on September 23, 2008, and a public comment period from September 23 to October 23, 2008, for Sugar Camp's NPDES application. The IEPA also held a public meeting on August 6, 2009, and a public comment period from July 7 to September 8, 2009, for Sugar Camp's Section 401 Certification application. TVA's review of the transcripts from these meetings and agency responses provided information for the preparation of the EA.

## **Mitigation**

The State of Illinois requires Sugar Camp to implement best management practices and mitigation measures in order to compensate for potential adverse environmental effects as conditions of Mine Permit No. 382. These conditions are enforced by the State of Illinois; TVA does not regulate them. These State of Illinois mitigation measures include:

1. The implementation of erosion-control practices (e.g., silt fences, straw, mulch, vegetative cover) and fugitive dust minimization (e.g., wetting roads prior to heavy use).
2. The implementation of water quality protection measures (e.g., sediment pond treatment, water quality monitoring, establishment of riparian zone buffer zones).
3. The repair of any damage to buildings or other structures on land overlying TVA-owned coal.
4. The minimization of invasive species transmission per the requirements of the Illinois Noxious Weed Law.
5. Compensation for any interruption to well water quality or quantity caused by subsidence on land over TVA-owned coal until the groundwater is restored.
6. The repair of any damage to roads on land overlying TVA-owned coal caused by subsidence.
7. The repair of any drainage alteration caused by subsidence on land overlying TVA-owned coal.
8. The implementation of the Sugar Camp Indiana Bat Protection and Enhancement Plan.

TVA will include the following conditions recommended by the Illinois SHPO and to be implemented by Sugar Camp Energy as formal conditions of mine plan approval:

1. Prior to subsidence, the Cutright House and the WPA. No. 5711 culvert will be evaluated for eligibility for listing in the National Register of Historic Places.
2. If eligible, the house will be protected by stabilization prior to subsidence according to a stabilization plan agreed upon in writing by the SHPO.

3. After subsidence, the house will be restored to its condition prior to stabilization, in consultation with the SHPO.
4. If eligible, the culvert will be recorded by an approved historic structure survey.

In addition to the SHPO's conditions stated in the memorandum of agreement, TVA will also include the following condition:

5. Adhere to the memorandum of agreement requirements.

Implementation of the planned mitigation measures previously described in the EA, as required and regulated by the State of Illinois as conditions of the mine permit approval, will adequately minimize other potential environmental effects associated with the construction and operation of the proposed underground longwall mine. No further nonroutine environmental commitments or mitigation measures have been identified by TVA to reduce potential environmental effects.

### **Conclusion and Findings**

Based on the findings of the EA, TVA has concluded that the approval of the Sugar Camp Energy plan for Mine No. 1 and the subsequent mining of TVA-owned coal would not result in significant adverse impacts to the environment. This conclusion is based on implementation of the mitigation measures listed above. The proposed action is not a major federal action significantly affecting the quality of the environment. Accordingly, an environmental impact statement is not required.



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Date Signed