Document Type: EA-Administrative Records
Index Field: FONSI
Project Name: Allen Fossil Plant Ash Management Strategy
Project Number: 2005-90

FINDING OF NO SIGNIFICANT IMPACT

TENNESSEE VALLEY AUTHORITY

DEVELOPMENT OF ASH MANAGEMENT STRATEGY

ALLEN FOSSIL PLANT

SHELBY COUNTY, TENNESSEE

Purpose and Need

The east pond at the Tennessee Valley Authority (TVA) Allen Fossil Plant (ALF) is an ash easement area used to receive sluiced boiler slag and fly ash. Most of the ash deposited in the east pond is either fly ash or slag fines not reclaimed by Reed Minerals for use in industrial abrasives. This pond is required to maintain 158,400 cubic yards of free water volume in order to comply with its National Pollutant Discharge Elimination System (NPDES) permit conditions. To maintain this volume, it has been necessary to construct a temporary dredge cell within this pond to receive ash hydraulically dredged from the rest of the pond. Dredged ash is being reclaimed from the dredge cell for other small structural fill projects in the vicinity of the plant. This process currently works, but the dredge cell could fill up within the next 24 months and, therefore, could affect TVA's ability to maintain the appropriate free water volume in the pond for compliance with NPDES requirements.

TVA must decide whether to (1) continue the status quo for managing the ash generated at ALF in the east pond on easement property, which is nearing capacity, or (2) develop a different strategy for management of the ash. TVA has prepared a Final Environmental Assessment (FEA) to understand better the impacts associated with the proposed action. The FEA is attached and incorporated by reference.

Alternatives

The FEA discussed and evaluated six alternatives. These included a No Action Alternative (Alternative A), three alternatives for ash utilization (Alternatives B, C, and D), one alternative for ash disposal (Alternative E), and a combination alternative (Alternative F), which consisted of a combination of one or more of Alternatives B through E.

Under Alternative A (the No Action Alternative), TVA would continue to send the ash to the east pond at ALF and dredge this ash into a small dredge cell to be reclaimed from time to time for small ash utilization projects. The No Action Alternative would eventually lead to issues with TVA's ability to maintain free water volumes needed to comply with existing NPDES requirements and, therefore, does not meet the purpose and need, which is the basis for the presently considered action alternatives.

Alternative B would involve the construction of a clay dike to develop a new fill area (Fill Area 1). The fly ash sluice would either be directed to Fill Area 1, or the ash sluice would continue to be directed to the current east ash pond and then periodically dredged to Fill Area 1.

Alternative C involves the use of approximately 2 million cubic yards of ash as structural fill inside the Ensley Levee to reinforce the infrastructure of the Pidgeon Industrial Park. The property is under control of the Memphis and Shelby Port Commission, which has agreed to use ash to develop the site. Alternative C is TVA's preferred alternative.

Alternative D would involve the construction of a clay dike and utilization of the existing Ensley Levee to develop a new fill area (Fill Area 3). The fly ash sluice would either be directed to Fill Area 3, or the ash sluice would continue to be directed to the current east and west ash ponds and then periodically dredged to Fill Area 3.

Under Alternative E, fly ash within the east pond would be hydraulically dredged into the existing temporary dredge cell within the pond. Each time the dredge cell reached capacity, it would be dewatered, excavated, dried, and hauled to an off-site commercial municipal solid waste landfill for disposal. It would be necessary to dredge, dewater, excavate, and haul material from the dredge cell on approximately a two- to three-year cycle in order to maintain compliance with the NPDES permit.

Alternative F would be a combination of two or more of the above Alternatives B through E.

Impacts Assessment

A TVA interdisciplinary team reviewed the potential direct, indirect, and cumulative effects of Alternative A (No Action Alternative), continuing to send the ash generated at ALF to the east pond, and the action alternatives, Alternatives B through F. Since Alternative F would consist of one or more of the other action alternatives, it would have less or equal impact to those of the other alternatives. No cultural resources would be impacted by any of the alternatives. No impacts to federally listed as threatened and endangered species are anticipated from any of the alternatives.

Under Alternative A (No Action), ALF would eventually not be able to maintain the necessary free water volume to remain in compliance with requirements of the current NPDES permit, which could result in discharging waters of degraded quality from the east ash pond outfall. Runoff to McKellar Lake would adversely impact aquatic resources in the lake and the Mississippi River. The No Action Alternative does not meet TVA's purpose and need.

Under Alternatives B and D and the preferred alternative (Alternative C), land clearing, site preparation, and vehicular traffic over unpaved roads and construction sites could result in the emission of fugitive dust particulate matter during active construction periods. Some potential exists for the occurrence of construction-related water quality and aquatic ecology impacts from erosion and effluent contaminants under Alternatives B, D, and C. These effects would be insignificant with the use of best management practices (BMPs). Alternative C does not involve activities in the 100-year floodplain. By selecting Alternative C as its preferred alternative over Alternatives B and D, which involve construction within the 100-year floodplain, TVA has complied with Executive Order 11988.

Both Alternatives B and D would need to be used in conjunction with another alternative because of limited storage capacity that does not meet the purpose and need for total storage capacity at ALF. If Alternative B or D were pursued, a borrow site would be identified and the environmental impacts of developing the borrow site would be identified associated with hauling the borrow material for dike construction. Alternative B would require construction of an additional haul road, since the site is currently almost inaccessible to truck traffic. Traffic-related impacts from Alternatives C, D, and E would be only minor, but Alternative E would result in an increase in truck traffic to an off-site landfill. Only minimal visual discord is anticipated for Alternatives C, D, and E. Alternative B would additionally result in the filling of a wetland in Fill Area 1. Alternative D could result in habitat removal for the only known breeding population of painted buntings in Tennessee. Alternative F would have less (or equal) impact than any of the other alternatives.

Alternative C is TVA's preferred alternative because it contributes to the infrastructure of Pidgeon Industrial Park and improves the growth opportunities of the future planned use of the site. Although the Memphis and Shelby Port Commission has identified potential future uses (such as building an intermodal freight transfer facility) for the site, definitive plans have not been made. The use of TVA's ash for infrastructure would avoid the need to excavate and transport approximately 2 million cubic yards of borrow soil that would otherwise be needed.

Mitigation Commitments

Routine and compliance measures to be implemented in order to minimize impacts are listed for Alternative C in Section 4.16 of the FEA. Because wading birds, forestland birds, and wetlands are subjects of concern, at the request of the U.S. Fish and Wildlife Service (USFWS), TVA will as a special commitment, conduct further coordination with the agency in the event that TVA were to change its preferred alternative to Alternative A, B, or D.

Public and Intergovernmental Review

TVA transmitted the Draft Environmental Assessment (DEA) for interagency review on June 12, 2006. Comments were received from the Tennessee State Historic Preservation Officer (SHPO) and the USFWS. The DEA was also available for a 30-day public review on TVA's external Web site's listing of projects currently undergoing environmental review. No other comments were received during the DEA review period.

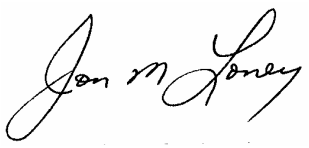
The Tennessee Historical Commission responded by letter dated June 26, 2006, stating that based on the information provided, the project area contains no archaeological resources eligible for listing on the National Register of Historic Places (NRHP).

The USFWS responded by letter dated July 14, 2006, indicating their concurrence with Alternative C, stating that implementation of this alternative would result in fulfillment of the requirements of Section 7 of the Endangered Species Act. They also reiterated the importance of BMPs in maintaining water quality. In addition, the USFWS included the special commitment listed below if TVA were to change its preferred alternative.

Conclusion and Findings

No wetlands have been identified or are known to exist on the preferred alternative (Alternative C) location. The Tennessee SHPO concurred with TVA's finding that the project area contains no archaeological resources eligible for listing on the NRHP. There would be no effect to threatened or endangered species, fulfilling the requirements under Section 7 of the Endangered Species Act. No floodplain impacts are associated with the preferred alternative. Water quality and aquatic ecology impacts would be reduced to insignificant levels with the adherence to BMPs for water quality protection.

Based on the analyses in the attached FEA and adherence to the mitigation listed in section 4.16, TVA's Environmental Stewardship and Policy has concluded that implementation of the preferred alternative (Alternative C) for utilization of a different ash management strategy would not be a major federal action significantly affecting the environment. Accordingly, an Environmental Impact Statement is not required.



August 10, 2006

Jon M. Loney, Manager
NEPA Policy
Environmental Stewardship and Policy
Tennessee Valley Authority

Date Signed