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FINAL SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

***Request for Tennessee Valley Authority Land Use and Section 26a Approval
and
Department of the Army Permit Under Section 10 of the Rivers
and Harbors Act of 1899
for
Expansion of its Existing Reservoir Sand Mining Operations –
Tract Nos. NOR-14A, -14, -15, -16, -21B, -41, -42, and -43 –
Nolichucky Sand Company, Inc.'s Bird Bridge Dredge
Nolichucky (Davy Crockett Lake) Reservoir, Nolichucky River Mile 49.0 to 51.0L***

Greene County, Tennessee

TENNESSEE VALLEY AUTHORITY
U.S. ARMY CORPS OF ENGINEERS

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**NOLICHUCKY (DAVY CROCKETT) RESERVOIR - REQUEST FOR
TENNESSEE VALLEY AUTHORITY LAND USE AND SECTION 26a
APPROVAL FOR EXPANSION OF NOLICHUCKEY SAND COMPANY, INC.
(NSC) EXISTING RESERVOIR SAND MINING OPERATIONS - TRACT NO.
NOR-14A, -14, -15, -16, -21B, -41, -42 AND -43 - BIRD BRIDGE DREDGE -
NOLICHUCKY RIVER MILE 50.1 TO 51.0L, GREENE COUNTY, TENNESSEE –
SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT (SEA)**

Proposed Action and Need

In June 2003, Nolichucky Sand Company, Inc. (NSC), recently acquired by Vulcan Materials, Inc., proposed to expand its existing commercial sand dredging operation on Nolichucky (Davy Crockett Lake) Reservoir to include an additional reach between Nolichucky River Mile (NRM) 50.1 and NRM 51.0. NSC also proposes to construct a sediment control basin on site (private land) to treat separation plant return water. Tennessee Valley Authority (TVA) and U.S. Army Corps of Engineers (USACE) are preparing this Supplemental Environmental Assessment (SEA) to analyze the environmental impacts of the additional dredging proposal and renewal of land use and permit approvals required for NSC's current operations.

NSC now owns or leases a total of 5.6 acres of yard area surrounding its sand separation plant. NSC is presently authorized to use three existing landing areas on TVA land in the floodplain at and downstream of its plant to temporarily store a fuel tank and booster pump. This pump allows for uphill movement of the sand slurry from the barge to the separation plant. No additional landings or access rights-of-way along the Nolichucky River shoreline upstream of Bird Bridge are requested at this time. Temporary booster pump and fuel tank storage landing sites on TVA land and within the floodplain would require additional approvals from TVA.

NSC has a permit under Section 26a of the TVA Act for its current operations. NSC is seeking approval to continue use of a graded and graveled ramp for launch and retrieval of its barge, along with approval for piping and flotation for support of its suction line to the separation plant and the submerged return (effluent) water discharge pipe from the plant via a new detention sediment basin. In addition, NSC is seeking approval of the existing water discharge pipe to its permit. Because the return water discharge pipe is submerged, it is viewed as a permanent obstruction to navigation and flood control and requires a Section 26a permit. TVA is proposing to consolidate and issue one conditional Section 26a permit to cover all of these activities.

Because sand would be dredged from TVA-owned reservoir bottom, a new land-use authorization (license) affecting an additional 30 acres of Nolichucky Reservoir shoreland and lake bottom would be needed, doubling the total size of the dredge area to approximately 60 acres. NSC activities covered under this land-use license, including reservoir-bottom dredging, would affect portions of several tracts of TVA fee-owned land including Tract Nos. NOR-16, -41, -42, and -43. New TVA Section 26a and land-use authorizations, including any conditions of approval, would supercede prior approvals issued in September 1999. Stockpiled sand, dredged debris disposal, and material periodically removed from the sediment basin would be disposed of above the Nolichucky River 500-year floodplain (elevation 1,275-foot mean sea level).

USACE approval is required pursuant to its authority to regulate dredging in navigable waters of the United States under Section 10 of the Rivers and Harbors Act of 1899. Tennessee Department of Environment and Conservation (TDEC), Division of Water Pollution Control, Mining Section requires approval pursuant to its authority under its Aquatic Resource Alteration Permit (ARAP) and National Pollutant Discharge Elimination System (NPDES) Programs.

To resolve violations of Tennessee Water Quality Control Act of 1977 by the previous owner, NSC has agreed that neither the previously authorized dredging nor the proposed additional dredging upstream of Bird Bridge would resume until a sediment detention basin is constructed and approved. Because the basin would be located on the uplands near the plant, approval from TDEC to commence basin construction has been requested and approved. A subsequent TDEC site inspection has revealed the basin is functioning satisfactorily. A small amount of plant yard drainage is being treated via infiltration and filtering through an existing vegetative buffer before entering the Nolichucky River.

To ensure that the integrity of its foundation is not compromised, NSC would not dredge within 500 feet upstream or downstream of Bird Bridge, located at NRM 50.2. Except for this 1,000-foot distance at Bird Bridge, NSC would operate its dredge within an area of roughly 60 surface acres approximating the original river channel. Including the area previously approved, this would include excavating Nolichucky Reservoir bottom deposits (i.e., silt, sand, and gravel-bed load) between NRM 49.0 and 51.0. This area lies about 3 river miles upstream of Nolichucky Dam (NRM 45.9)

Background

In August 1999, TVA completed a joint review of NSC's original ten-year sand dredge proposal between NRM 49.0 and 50.1 and issued its Finding of No Significant Impact (FONSI) on August 30. In September 1999, NSC received authorization from TVA to use its shoreland, mine sand from Nolichucky Reservoir bottom, and construct and operate an access ramp, equipment landing, piping, and buoy line. USACE authorized the dredging for a five-year period, which expires September 30, 2004. TDEC issued both ARAP and NPDES permits approving the project. The 1999 approval allowed dredging of an approximate 30-acre portion of reservoir bottom beginning 500 feet downstream of Bird Bridge. A portion of the TVA property, presently under a license to the Tennessee Wildlife Resources Agency (TWRA) for management of the Nolichucky Wildlife Management Area (WMA) and Waterfowl Refuge lies within the previously authorized area, while the expanded area would be adjacent and upstream. Although only one fuel tank and booster pump landing area was originally approved, subsequent NSC requests resulted in TVA approving use of its land for three landings.

Due to the lack of sufficient sand replenishment into the previously authorized dredge area, operations ceased in the fall of 2002. Since sand had not been replenished as expected, NSC has requested approval to dredge nearly an additional mile of river upstream of Bird Bridge where sand deposits are plentiful. Since the fall of 2002, NSC estimates that only 15,000 to 25,000 tons of sand have been replenished into the previously authorized dredge area, while 1 to 2 million tons of sand are available in the new area. NSC would continue to produce sand for various industrial-use purposes, at a rate of about 200,000 tons per year.

Operating days and times would continue as previously approved, including wintertime shutdown (or generally between mid-November and late January), to avoid impacts to the adjoining Nolichucky WMA. Dredging would continue to be conducted from an 11.5-foot-wide by 33-foot-long floating barge using an 8-inch cutterhead suction dredge with a 2,500 gallon-per-minute pump. Dredged material would be piped to shore and pumped to the separation plant. Sand processing would include screening and on-site stockpiling. All other plant operations would continue as described in Attachment 1 (the August 1999 Environmental Assessment [EA]), which is incorporated by reference.

As a result of relatively few high-flow events in the Nolichucky River watershed since NSC began dredging in 1999, there is no longer enough sand between NRM 49.0 and 50.1 to satisfy NSC's requirements to maintain its profitability and fulfill its market demand. For this reason, NSC is now seeking to expand its dredging operation upstream to NRM 51.0.

With mitigation measures included in the previous EA (Attachment 1) and improvements in basin effluent discharge, TVA anticipates that NSC's proposal to expand its dredging area would not have significant environmental impacts.

Other Environmental Reviews

Nolichucky Sand Company, Inc., Request for Tennessee Valley Authority Land Use and Section 26a Approval and Department of the Army Approval Under Section 10 of the Rivers and Harbors Act of 1899 for Lake Access and Sand Mining, 1999 EA. See the attached EA for additional descriptions and analysis of the previously authorized project site between NRM 49.0 and 50.1, which includes discussions of aquatic ecology, terrestrial ecology, managed areas, protected species, cultural resources, surface water, stream modification, wetlands/riparian habitats, and recreation. Also, see the EDR (Environmental Decision Record) in the attached EA for issues considered but not addressed in detail.

Nolichucky Reservoir Flood Remediation Draft Environmental Impact Statement (DEIS). In January 2002, TVA published the Nolichucky Reservoir Flood Remediation DEIS to identify and evaluate a range of alternative ways to address flooding effects of Nolichucky Dam and accumulated sediment in Nolichucky Reservoir on nonfederal property. TVA has received public comments on the DEIS; however, the Final EIS has not been published. The previously authorized sand dredging operation was described in the DEIS as part of the existing conditions around the reservoir. In addition, the Action Alternatives considered in the DEIS include either TVA dredging material from the reservoir or encouraging the removal of sediment by private companies. Approval of NSC's request to expand its operations would not limit TVA's choice of alternatives under consideration in the DEIS or establish a precedent for future actions with significant effects.

Alternatives

Action Alternative

Under the Action Alternative, TVA and USACE would issue conditional Section 26a and Section 10 permits, and TVA would approve a land-use license affecting 60 acres (i.e., 30 acres in the original project area plus an additional 30 acres). Impact avoidance and/or mitigation measures would be included as conditions of approval, including the mitigation measures listed in the attached 1999 EA. Under the Action Alternative, water

quality in this reach of the river would be expected to be maintained or improved slightly. Minor fisheries and aquatic ecological benefits of bottom sediment removal would continue and increase. Potential indirect effects on waterfowl use of the WMA would be avoided or otherwise minor. Because the river would be deepened, recreational boat navigation in this reach and in the vicinity of the Bird Bridge boat ramp (operated by TWRA) would be improved. NSC would retain six full-time hourly jobs for the longer term and provide a commercially valued product beneficial to the economy inside and outside Greene County. Estimated sales at the Bird Bridge dredge are projected to be likely in excess \$1 million per year.

No Action Alternative

Under the No Action Alternative, one or more of the required approvals addressed above, including the use of additional TVA land, would be denied. Since sand has not been replenished in the previously dredged area at an acceptable rate, NSC could abandon the operation altogether. Any additional employment and positive local and regional economic benefits would be foregone. Water quality benefits could be reduced, while minor positive recreation and fisheries and aquatic ecological impacts of sediment removal would also be foregone. Public use and its associated values previously occurring on these tracts would be restored. There would be no potential for indirect effects on the WMA or wildlife which seasonally occupy or permanently occupy the site. See the attached EA for a description of effects of increased costs if commercial sand production would have to be supplied from NSC's dry land operations known as "Greystone" as well as market effects of not being able to mine river sand. NSC does not own the dredge site formerly operated at NRM 60.0, known as the Kinser Bridge site.

Affected Environment and Impacts Assessment

Action Alternative

TVA has reviewed the 1999 EA and has determined that it adequately evaluates the environmental impacts of NSC's operations between NRM 49.0 to 50.1. The existing environment and additional environmental impacts that would be caused by expanding the dredge area are similar to the prior proposal and are discussed below.

Surface Water, Stream Modification, and Floodplains

The proposed license agreement would allow expansion of the existing commercial sand dredging operation. As indicated in the attached EA, this reach of the Nolichucky River is listed on TDEC's 303(d) list of streams that are "water quality limited" because of siltation deposits resulting from agriculture, resource extraction, and from various sources in the watershed. Dredging would, at least temporarily, deepen this reach of the river; minimally increase flood storage, and change streamflow patterns and circulation. Although not fully supporting designated uses (see Surface Water and Stream Modification section in the attached EA), these changes could likely help retain current stream use classifications. In accordance with imposed commitments, additional modifications of the river shoreline are not anticipated.

For compliance with Executive Order 11988, Floodplain Management, dredging would be considered as a repetitive action in the floodplain. Adverse impacts would be minimized because the dredged material including sand and debris would be stored outside the limits of the floodplain in the existing sand separation plant yard. Although within allowable limits, a very small amount of this material would be returned to the river via basin discharge and filtered yard runoff. Material periodically removed from the

sediment basin would be disposed of above the Nolichucky River 500-year flood elevation. The licensed areas are all located within the floodplains or the reservoir limits (i.e., underwater).

Cultural Resources

See the Cultural Resources sections under Affected Environment and Environmental Consequences in the attached EA for a description of the historic structures and sites in the vicinity on this reach of the Nolichucky River. A nineteenth-century house and barn near the sand separation plant have been previously determined to be ineligible for the National Register of Historic Places (NRHP). No effects on any other historic structures are anticipated from expansion of the proposed dredge area.

Little formal research has been conducted to systematically document the archaeological resources of the Nolichucky River Valley. However, numerous archaeological sites have been recorded along the river in Greene and Washington Counties. As indicated in the attached EA, the valley is an area rich in prehistoric archaeological resources and sites of early historic settlement. The Camp Creek Site (40GN1), approximately 6 miles upstream from Bird Bridge, was extensively investigated in the 1950s and is considered the type of site for the Early Woodland Period in east Tennessee. See the attached EA for a description of an undefined prehistoric site that had once existed, but had been previously destroyed, at the location of the separation plant.

The river channel between NRM 49.0 and NRM 51.0, including the newly proposed area upstream of Bird Bridge, contains only recently accumulated sand and gravel. No historic properties occur here. The first river terrace consists of several feet of alluvial sediment accumulated in the twentieth century due to the influence of Nolichucky Dam downstream during high flow events.

There are no NRHP-listed or -eligible historic properties that would be affected by the proposed upstream expansion of the dredging operation. The planned sediment control basin would be constructed within the substantially disturbed yard area at the separation plant. Although a prehistoric archaeological site once existed at that location, it was destroyed by grading prior to 1999. NSC would be required to operate its dredge within no closer than 30 feet of the shoreline (of either bank) or beneath the lakeward extent of any over-water tree canopy (whichever is greater); therefore, no land based archaeological resources would be affected (see Commitment 2 in the attached EA). NSC would pump sand slurry to the landing (i.e., fuel tank and auxiliary pump), located on the previously approved first river terrace at the plant site. No additional landings are planned along the shore upstream of Bird Bridge.

Aquatic Ecology

The reach of the Nolichucky River proposed to be affected in the expanded dredging is similar in habitat characteristics and aquatic life to the reach between NRMs 49.0 and 50.1 previously authorized for such use. See the Aquatic Ecology sections under Affected Environment and Environmental Consequences in the attached EA for a description of the area and anticipated effects of previously authorized dredging activity.

Provided commitments to minimize water quality and aquatic ecological impacts included in the attached EA continue to be implemented, use of portions of the additional

tracts of TVA-owned land (NOR-16, -41, -42, and -43) and dredging as previously conducted in the area above Bird Bridge to NRM 51.0 would not significantly impact aquatic life or habitats. Because the amount of additional deep-water habitat and aquatic diversity would be slightly increased in this reach of the river, minor incremental fisheries and aquatic ecological benefits of bottom sediment removal would continue and increase.

Because of the lack of suitable habitat in the reservoir pool area, TVA surveys did not reveal any state- or federally listed fishes, mussels, or amphibians within the newly proposed dredge area or within a 10-mile reach upstream of Bird Bridge (TVA, 2002). Based on this survey, there are no state- or federally listed aquatic species that would be affected by the Action Alternative.

Terrestrial Ecology

See the Terrestrial Ecology, Protected Species, and Wetland/Riparian Habitats sections under Affected Environment and Environmental Consequences in the attached EA for a description of common wildlife and endangered species. Plants and animals known or expected to inhabit the wetlands/riparian habitats along this reach of the Nolichucky River and anticipated effects of previously authorized dredging activity are also described. These habitats are characteristic of those that occur along the additional reach of Nolichucky River proposed for dredging between NRM 50.1 and NRM 51.0. Except for known endangered species, terrestrial habitats, plant, and animal populations that occur on or use the area adjacent to the proposed dredge expansion area are common and regionally widespread.

The TVA Natural Heritage database was reviewed in December 2003 to determine known or likely occurrences of any new state- or federally listed species in the general vicinity of the expanded dredge area. Areas both downstream and upstream of Nolichucky Dam (NRM 46.0) were surveyed by TVA in 2000 (TVA, 2002) for the occurrence of any endangered species. No state- or federally listed mussel, fish, or amphibian species were found during these surveys upstream of Nolichucky Dam (NRM 46.0). One state-listed fish species, the highfin carpsucker (*Carpionodes velifer*), was collected by TWRA in 1998 above Nolichucky Dam (NRM 74.3) (Carter, et al., 1999). One TVA Natural Heritage database record, dating back to 1947, reports this species from NRM 48.

Swainson's warbler (*Limnothlypis swainsonii*) was observed during field surveys conducted by TVA in 2000. It is state-listed as in need of management. The wetlands and floodplain forests along Nolichucky Reservoir probably provide suitable habitat for this species. Barn owl (*Tyto alba*), state-listed as in need of management, has also been identified as nesting in Greene County, and suitable habitat for this species probably exists in the vicinity of the project area. Gray bat (*Myotis grisescens*), state- and federally listed as endangered, has been found in a cave downstream from Nolichucky Dam. It probably forages along the river, both upstream and downstream of Nolichucky Dam. Smokey shrew (*Sorex fumeus*) and Southeastern shrew (*Sorex longirostris*) were captured along the river during 2000 field surveys (TVA, 2002). Both of these species are state-listed as "in need of management."

One plant, branching whitlow-wort (*Draba ramosissima*), state-listed as special concern in Tennessee, was found adjacent to Nolichucky Reservoir at three locations (NRM 46.2,

49.6, and 51.0) during the 2000 TVA field surveys. Preferred habitat is dry mountain woodlands, often over limestone. It is more frequently found on limestone cliffs associated with cedar trees. These populations were located on steep rock faces approximately 10 to 15 feet above the reservoir water surface (TVA, 2002).

Wetland and riparian habitats are also described (and mapped) from Nolichucky Dam (NRM 46) upstream to NRM 61 (TVA, 2002). Riparian areas, dominated by medium to large trees, occur along both shorelines surrounding the entire project area. As classified by Cowardin, et al., 1979, temporarily and seasonally flooded forested wetlands occur in low-lying areas immediately behind the low-terrace riparian zone (i.e., berm). Three substantial wetland sloughs, two on the right descending shoreline and one on the left descending shoreline, occur on TVA property adjacent to the proposed dredge area (NRM 50 to NRM 51). Water is supplied to these wetlands from flooding, groundwater, and tributary streams. These areas provide important wetland functions and values as well as habitat for wetland wildlife, such as waterfowl, wading birds, reptiles, amphibians, songbirds, raptors, and mammals. Wood ducks (*Aix sponsa*) annually nest and rear their young in wetland/riparian habitats along the Nolichucky Reservoir and River during spring and summer. This ecosystem supports a substantial population of wood ducks.

Because the dredging would be confined to the river channel and conducted during daytime, rare birds and mammals or their habitats, known or likely to occur in the project vicinity, would not be adversely impacted. Impacts to these species from operations and noise levels generated would be insignificant. Adherence to Commitment 2, no dredging is permitted within 30 feet of the shoreline or beneath the lakeward extent of any over-water tree canopy, in the attached EA would retain the availability of the existing shoreline habitat. No branching whitlow-wort populations would be adversely affected by the Action Alternative due to their locations and the nature of the proposed NSC operations.

NSC's proposed expansion from NRM 50.1 to NRM 51.0 would use the same dredging method as previously approved. If NSC adheres to Commitment 2 in the attached EA, no activity or disturbance would occur in terrestrial habitats, riparian areas, or wetlands. Therefore, none of these resource areas should be adversely affected by the Action Alternative.

Recreation

See the Managed Areas and Recreation sections under Affected Environment and Environmental Consequences in the attached EA for a description of the recreation resources on this reach of the Nolichucky River and anticipated effects of previously authorized dredging activity. This includes a description of Kinser Park, use of TVA facilities by Cedar Creek Learning Center and the Nolichucky WMA and Waterfowl Refuge.

Nolichucky Reservoir is a small, narrow, and shallow recreation resource, especially when compared to the other reservoirs in east Tennessee. Therefore, the reservoir offers a relatively unique recreation resource unattractive to pleasure boaters, water skiers, and personal watercrafters who utilize larger reservoirs. The majority of the reservoir has little development along the immediate shoreline and provides a quiet and almost solitary recreation experience. Recreational activities occurring on the reservoir

include bank fishing, fishing from small boats, canoeing, and waterfowl hunting. No angler use or harvest data are available. Access to the reservoir is provided by boat ramps at NRM 47.4 (Kinser Park) and at NRM 50.3, adjacent to Bird Bridge. The latter ramp is in a section of the river within 500 feet downstream of Bird Bridge where no dredging would occur. Both ramps are concrete and have small, gravel parking lots.

The WMA is closed to waterfowl hunting during the regular statewide waterfowl season; however, wood ducks and Canada geese in the area can be harvested during special seasons. Typically, 50 to 75 hunters harvest several hundred doves in the first few days of dove season each September. Overall, hunting pressure on the WMA is considered light.

The Nolichucky River from Relief, North Carolina, to the backwaters of Douglas Reservoir provides 93 miles of free-flowing water (excluding Nolichucky Reservoir). The river provides anglers with the opportunity to catch all species of black bass, rock bass, and muskellunge; however, no angler use or harvest data are available. Far upstream from the reservoir, the river is stocked with rainbow trout, which provides additional fishing opportunities. The Nolichucky Gorge above Irwin, Tennessee, has Class III and IV whitewater and is used by several commercial rafting companies as well as many recreational boaters (U.S. Forest Service, 1994).

TVA and TWRA have provided developed river access sites at NRMs 32.1, 46, 50.3, 68.6, and 106.5. In addition, TVA has acquired land at NRMs 28, 54.1, 60.4, and 70.5. The river, both upstream and downstream from Nolichucky Reservoir, is a popular local recreation resource for several other reasons. TVA has developed boat access sites at NRMs 46 and 106.5 and owns potential future access sites at NRMs 28, 54.1, 60.4, 70.5, and 86.6.

Expanding the NSC dredging operation nearly an additional mile above Bird Bridge would not negatively impact recreational use or activities occurring at Kinser Park or the environmental education activities conducted at Nolichucky Dam through the efforts of Cedar Hill Learning Center. Because the new dredge area occurs upstream of the WMA boundary, minimal impacts on wildlife, their habitats, or use of this area are expected. However, extending the dredging operation could have a minor positive impact on boating, float fishing, and duck hunting in the immediate area. Other than during winter when operations shut down, users would need to exercise caution when launching at the Bird Bridge ramp or boating upstream or downstream from the ramp to avoid the dredge barge, buoys, and piping in the river channel. NSC agrees to avoid dredging within 500 feet of Bird Bridge, which includes the vicinity of the boat ramp. NSC would also adhere to Commitment No. 10 (i.e., dredging operations will be conducted in a manner that does not cause blockage of the river channel) of the attached EA, which would minimize these minor anticipated effects.

Daytime noise from engines aboard the dredge barge and pump may frighten waterfowl away from the immediate operations area, making their harvest more difficult. However, there are approximately 10 river miles above this location in public ownership where ducks and geese may be hunted. Although most of the banks of the Nolichucky River are privately owned, the river provides duck resting and foraging habitat upstream to Irwin, Tennessee, approximately 46 miles. Therefore, impacts of expanding NSC operations on recreational hunting are insignificant.

No Action Alternative

See discussion of effects of the No Action Alternative in the Alternatives section above and in the attached EA.

Mitigation

As indicated in its plans and to avoid compromising the structural integrity of the bridge and its foundation, NSC has agreed that no sand dredging will occur within 500 feet upstream or downstream of Bird Bridge. Impact avoidance and/or mitigation measures included in the attached 1999 EA, which is incorporated by reference, will be included as conditions of approval.

From the standpoint of flood control, the proposed expansion would have no impacts provided the following conditions are included in any transfer or license agreement document(s). NSC would agree that stockpiled sand will be stored and contained on land above the 1,269.1-foot contour, and every precaution will be made to prevent the reentry of the sand into the reservoir. Dredged debris and material periodically removed from the sediment basin would be disposed of above the Nolichucky River 500-year floodplain. Any future facilities or equipment subject to flood damage will be located above or flood-proofed to the 500-year flood elevation at that location. Any future development proposed within the limits of the 100-year floodplain will be consistent with the requirements of Executive Order 11988. NSC will be advised that TVA retains the right to flood this area and that TVA will not be liable for damages resulting from flooding.

Public and Intergovernmental Review

See the Public Involvement section of the attached EA.

On December 16, 2003, TDEC issued Public Notice M2003-08 on the proposed NSC dredge expansion as a part of its ARAP program procedures under Permit Application Number ARAP #M2003-11. The proposed NSC dredge expansion was announced through USACE/TVA/TDEC Joint Public Notice No. 03-100 dated December 19, 2003. Both notices described NSC proposed operations and expansion request, and comments were requested by January 17, 2004, and January 21, 2004, respectively. As a part of its procedures in implementing its NPDES program, TDEC also issued Public Notice M2004-02 on February 6, 2004 (Attachment 2).

In response to Joint Public Notice 2003-100, in its letter of January 21, 2004, the U.S. Fish and Wildlife Service (USFWS) indicated that no federally listed or proposed endangered or threatened species occur within the impact area of the project. Based upon the best information available at this time, USFWS believes that the requirements of Section 7 of the Endangered Species Act of 1973, as amended, are fulfilled. Furthermore, USFWS does not anticipate significant adverse impacts to fish and wildlife or their habitats provided conditions listed in TDEC Public Notice No. M2003-08 is followed (Attachment 3). Therefore, USFWS does not object to issuance of a permit for the work described.

TDEC issued ARAP #M2003-11 on April 1, 2004, authorizing the project and NPDES Permit # TN0072303 (permit renewal) on April 7, 2004 (Attachment 4).

TVA also circulated the draft SEA to eight other federal, state, and local agencies for review. In its letter of March 8, 2004, Tennessee Historical Commission concurs that there are no NRHP-listed or -eligible properties affected by this undertaking (see Attachment 3).

Conclusions

Based on analysis in this SEA, conclusions and commitments incorporated by reference in the previously completed assessment (attached), site inspection and detailed review of NSC's development and operational plans, TVA and USACE conclude that continued and expanded sand dredging of the Nolichucky Reservoir, between NRM 49.0 and NRM 51.0 would not significantly affect wetlands, endangered species, or historic properties. Based on review of plans, including development and operation of an on-site sediment control basin, TVA has determined that impacts of continued and expanded sand dredging operations would not adversely impact water quality in the Nolichucky River. Effects of sediment removal on fisheries and aquatic ecology are expected to be incrementally small, but beneficial.

Literature Cited

- Carter, B. D., C. E. Williams, and R. D. Bivens. 1999. *Warmwater Stream Fisheries Report, Region IV, 1998*. Report 99-5, Tennessee Wildlife Resources Agency, April 1999, 101 pages.
- Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. *Classification of Wetland and Deepwater Habitats of the United States*. Publication FWS/OBS-79/31, U.S. Fish and Wildlife Service, Washington, D.C.
- Tennessee Valley Authority. 2002. *Nolichucky Reservoir Flood Remediation Project Draft Environmental Impact Statement*. TVA, Knoxville, Tennessee, 215 pages plus appendices.
- U.S. Forest Service. 1994. *Wild and Scenic River Study Report and Final Environmental Impact Statement on the Nolichucky River*. U.S. Department of Agriculture, Forest Service, Pisgah National and Cherokee National Forests, Asheville, North Carolina, 42 pages.

Attachments

1. Nolichucky Sand Company Joint EA and TVA FONSI, 1999
2. USACE/TVA Joint Public Notice and TDEC Public Notices
3. Responses to Public Notices
4. TDEC ARAP and NPDES Permits