

FINAL ENVIRONMENTAL ASSESSMENT

FORREST CROSSING DEVELOPMENT

**REQUEST FOR PERMANENT EASEMENT FOR ROAD AND
UTILITIES RIGHT-OF-WAY (ROW) ACROSS TVA LAND
AND SECTION 26a PERMIT FOR ROAD, UTILITIES,
SHORELINE STABILIZATION, AND TO CONSTRUCT
RECREATIONAL VEHICLE CAMPING LOTS
ON PRIVATE PROPERTY**

**KENTUCKY RESERVOIR
SALE TRACT NO. XGIR-940H
(PLANNED TRACT NO. 262PT)
TENNESSEE RIVER MILE 157.9L
DECATUR COUNTY, TENNESSEE**

TENNESSEE VALLEY AUTHORITY

APRIL 2003

For more information, please contact:

Stanford E. Davis
NEPA Administration
Tennessee Valley Authority
400 West Summit Hill Drive, WT 8C
Knoxville, Tennessee 37902
Phone: 865.632.2915
Fax: 865.632.6855
E-mail: sedavis2@tva.gov

FORREST CROSSING DEVELOPMENT

REQUEST FOR PERMANENT EASEMENT FOR ROAD AND UTILITIES RIGHT-OF-WAY (ROW) ACROSS TVA LAND AND SECTION 26a PERMIT FOR ROAD, UTILITIES, SHORELINE STABILIZATION AND TO CONSTRUCT RECREATIONAL VEHICLE CAMPING LOTS ON PRIVATE PROPERTY

Purpose and Need for Action— The Tennessee Valley Authority (TVA) has prepared this final environmental assessment (FEA) to evaluate the potential impacts of a proposal requesting conveyance of land rights and approval under Section 26a on the Tennessee River (Kentucky Reservoir). Dr. James M. Lee requested that TVA grant him a permanent easement and right-of-way (ROW) to access his property for the construction and sale of RV camping lots. Additionally, Section 26a approval is needed for construction, use and maintenance of a road, aerial and underground utilities across the easement area; shoreline stabilization, and development of recreational vehicle (RV) campsites. The TVA land proposed to be affected, TVA Tract No. GIR-7666 or Planned Tract 262PT, is allocated for agricultural, water access, and minor commercial landing in the Kentucky Reservoir Land Management Plan (TVA, 1985).

On November 15, 2002, pursuant to its authority under Section 10 of the River and Harbors Act of 1899 and Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) issued an individual permit to Dr. Lee for the 3100 feet of limestone riprap shoreline stabilization after assessing the impact of the proposal in an environmental assessment (EA) and Finding on No Significant Impact (FONSI) signed on November 1, 2002. TVA has critically and independently reviewed the USACE EA/FONSI and concurs with its contents. Therefore, as it relates to the shoreline stabilization portion of this project, TVA incorporates by reference USACE's analyses, findings and conclusions, as well as required special conditions (Appendix A).

Because federal approval would be needed to gain access to this private property and proposed actions on the property need approval under Section 26a, TVA assessed the impacts of the entire development site. In this regard, cultural resources survey information indicates that there are at least two known archaeological sites on the applicant's adjoining land proposed for development. TVA's review indicated that the project could affect historic properties. In addition, the project would affect a large land area and would be located in the floodplain. Accordingly, TVA has prepared this EA to better understand the nature and significance of the affects on the floodplain and cultural resources sites, and assess the impacts of the entire proposed Forrest Crossing Development (Figure 1).

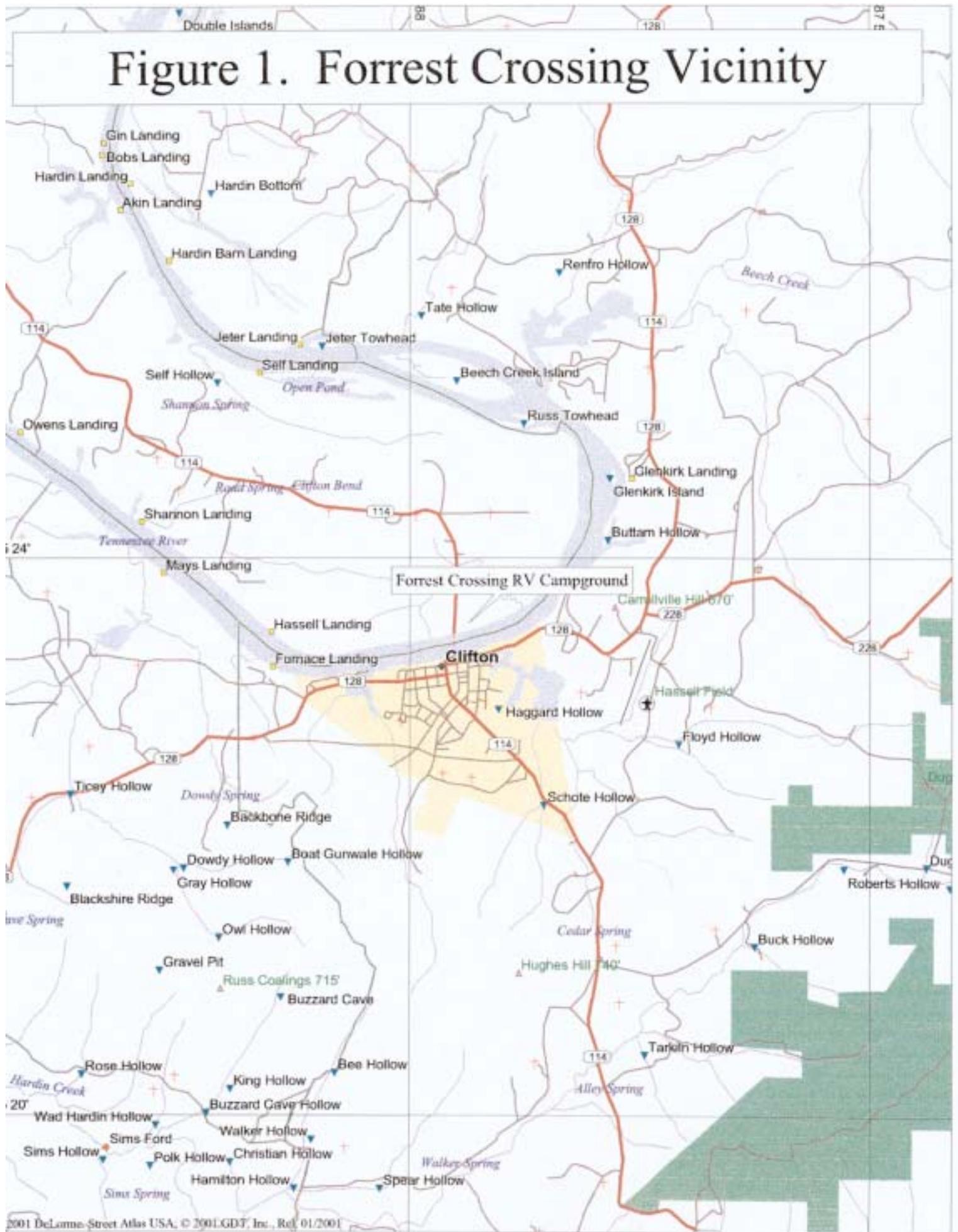
Alternatives— The two alternatives under consideration in this DEA are the Action Alternative under which TVA would grant the requested permanent easement and approve the private land development under Section 26a; and the No Action Alternative. These alternatives are described in more detail below.

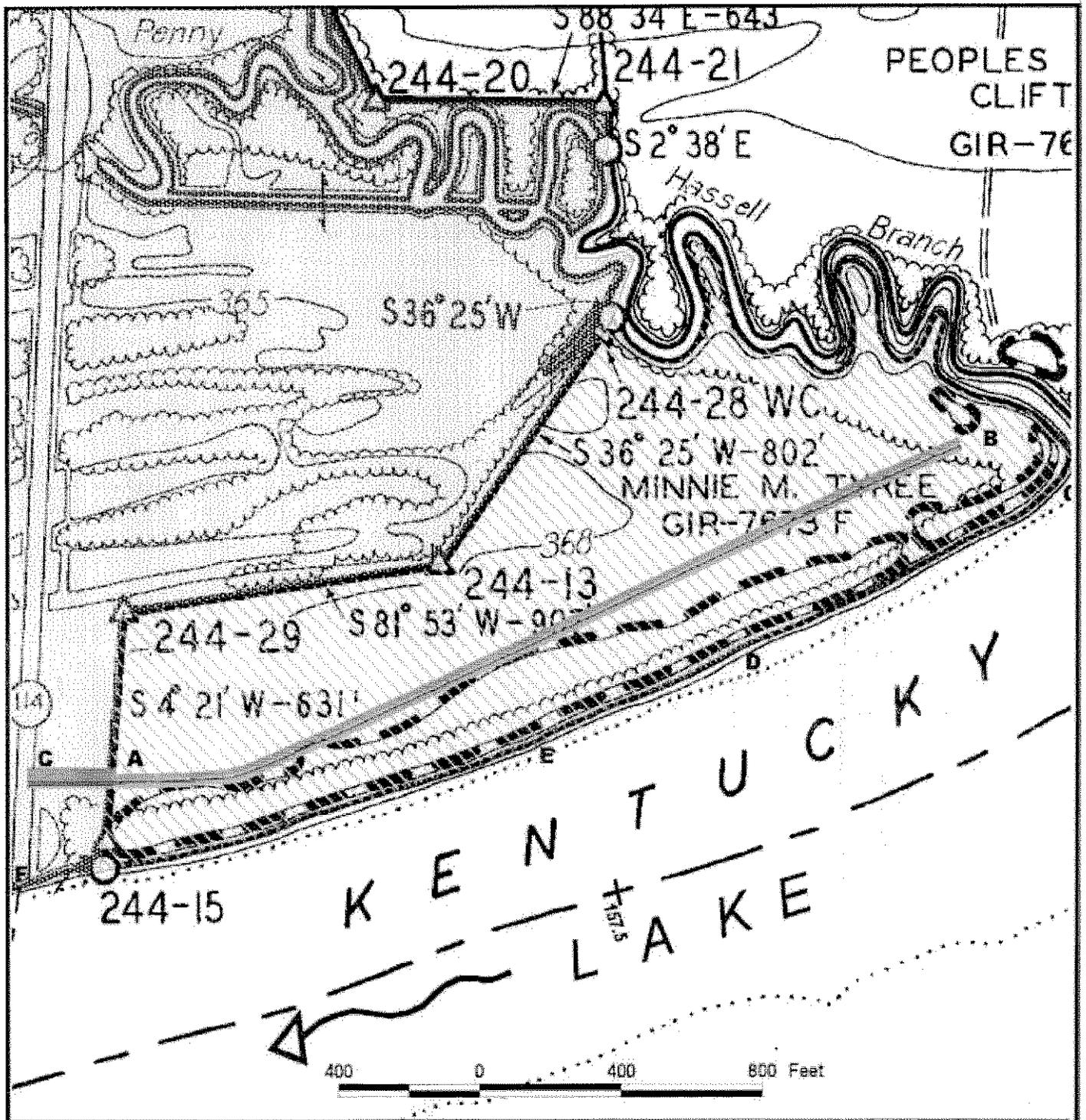
Action Alternative— Under the Action Alternative, TVA would grant a permanent easement to use and maintain an access road, aerial electric lines, and underground waterlines across TVA fee owned property (Tract GIR-7666). Also, Section 26a permit approval would be issued for construction within the ROW as well as for the proposed fill and construction of the road and utilities, shoreline stabilization, and RV campsite development on D. Lee's private land (Tract No. GIR-7673F). See Figures 2 and 3. The road, erected aerial electric lines, and buried waterlines would extend along approximately 3000 feet of Tract No. GIR-7673F. Approximately 3350 cubic yards or 5025 tons of fill material would be placed about 6-8 inches deep between elevations 370.0 and 375.0 msl to construct the road over its entire length. Most of the road fill material would probably be placed above 368 msl, the TVA flowage easement elevation, but within the 100-year floodplain, elevation 387.5 msl. A culvert would also be installed under the access road on the easement area to allow drainage.

In regards to shoreline stabilization, Dr. Lee proposes to place approximately 11,722 cubic yards of limestone riprap between elevations 359.0 and 378.0 mean sea level (msl) along about 3100 feet of his land on Kentucky Reservoir's shoreline to control erosion. Approximately 230 cubic yards of this material would be placed below elevation 359.0 msl, the reservoir's normal summer pool. No excavation or reshaping of the shoreline would occur in preparation for placement of riprap. The work would be conducted during winter, in the dry, when pool elevation is around 354.0 msl.

No Action Alternative— Under the No Action Alternative, TVA would not grant an easement across Tract No. XGIR-940H (TVA Tract GIR-7666) or issue Section 26a permit approval for the road and utilities needed to support RV campground development or approve the shoreline stabilization. Because it is surrounded by TVA land, Kentucky Reservoir and Penny Hassell Branch, the applicant's private property would remain land-locked; however, TVA would continue to allow access across its property for agricultural purposes consistent with the currently designated use for this tract.

Figure 1. Forrest Crossing Vicinity





-  Proposed ROW Permanent Easement
Approximately 0.29 Acres
-  Utilities:
Blue - Underground Water Lines
-  Green - Aerial Electric Lines
-  Riprap 19' W x 3,100' L
-  Road ROW 50' W x 3,000' L
-  TVA Property GIR-7666
-  Applicant's Property

PROJECT MAP
 James M. Lee
 Proposed Right of Way
 Permanent Easement and
 Section 26a Approval for
 Private Road and Utilities
 Decatur County, TN
 Tract No. XGIR-940H
 Tennessee River Mile 157.9L

Map Reference:
 U-stage 244
 Quad 33NW



Figure 2

Project and Site Description— The affected TVA fee owned property, which consists of a 0.53-acre portion of Planned Tract 262PT, is located on the left bank of Kentucky Reservoir at Tennessee River Mile 157.9 in Decatur County, Tennessee. The road and utilities ROW to access Dr. Lee's property would cross this 0.53-acre portion of TVA Tract No. GIR-7666, designated as Tract No. XGIR-940H (see Figure 3). This ROW would be approximately 250 feet in length and 50 feet in width. Dr. Lee's 40 acres of private property is identified in TVA land records as a portion of Tract No. GIR-7673F. The applicant presently plans to subdivide this land into about 30 lots along the waterfront terrace with dimensions approximating 100-foot by 200-foot. This accounts for about 14 acres or 35 percent of the property.

The TVA property, Planned Tract 262PT is 10.7 acres of land located just across the Tennessee River from the Town of Clifton. This entire tract is undeveloped. Access to this TVA land and the land-locked private property is provided via Old Ferry Road (former TN Highway 114), which is the former ferry crossing at Clifton. This former ferry landing receives sporadic, but largely infrequent recreational use by residents of the Clifton Bend area. In the past, the old ferry access was used as a transfer point for barges and trucks, but this use usually does not conflict with public boating or public use on Tract 262PT (TVA, 1985).

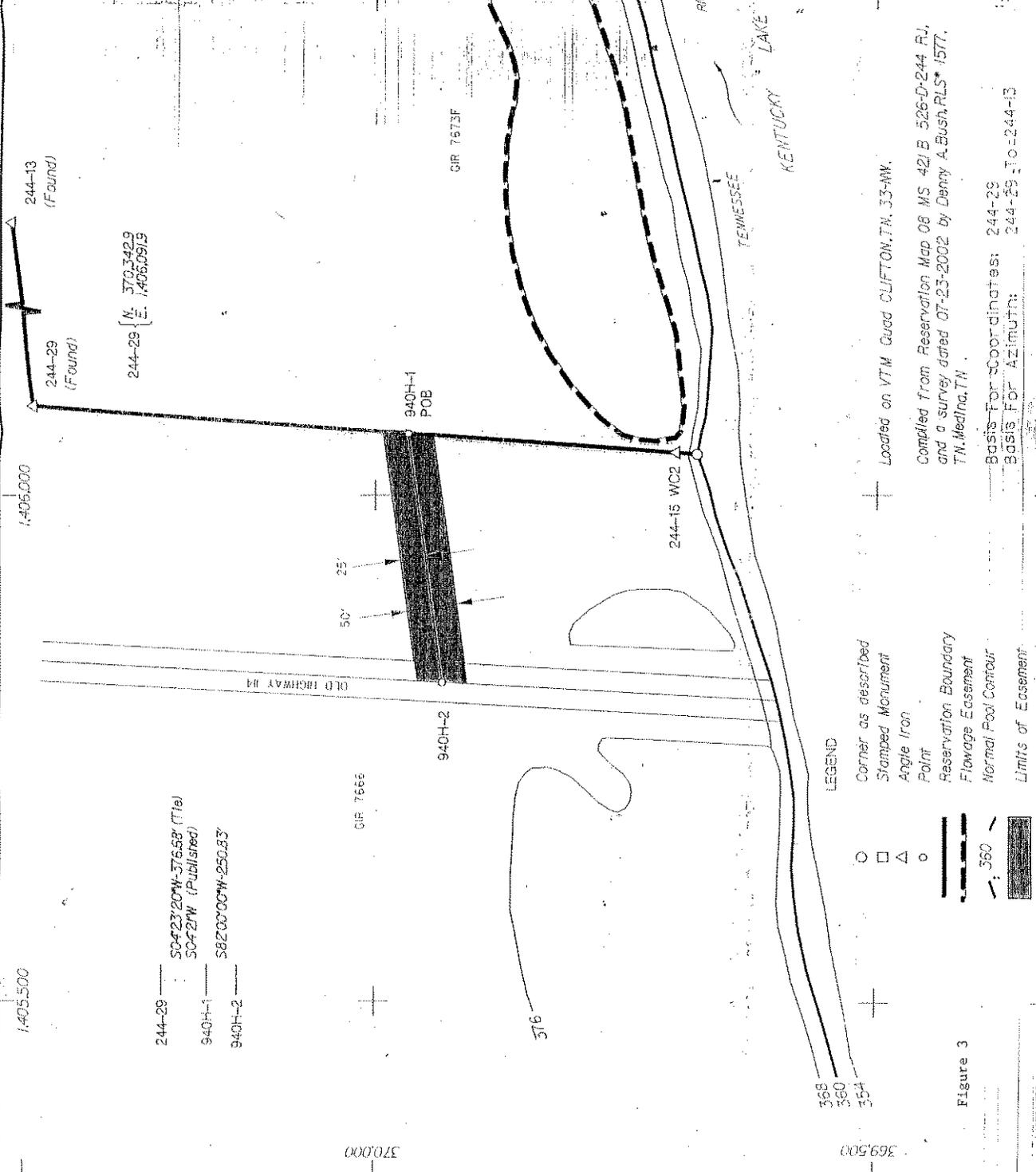
The private property, proposed for use as an RV campground, is located just east of Old Ferry Road and the TVA land. Penney Hassell Branch, which flows through TVA Planned Tract 261PT (158.9 acres), adjoins Dr. Lee's property to the north and forms the eastern boundary of the property. Portions of the Tract 261PT along the Penney Hassell Branch, which drains into the near riverine upper end of Kentucky Reservoir, are productive wildlife habitat. Undeveloped land in this tract includes a forested wetland hummock complex. The private property consists of 40 acres of grassy open land, bordered by a narrow riparian tree line along the reservoir. No wetlands occur on this land. The property, which has lost some 40 to 50 feet of its shoreline to erosion in the last two decades, is typically maintained as open land by mowing. Historically, TVA has allowed informal access across its land to such tracts for agricultural purposes.

Impacts Evaluated— TVA conducted a preliminary review and evaluation of the proposed project subsequent to the receipt of a detailed proposal. As a result of public participation and staff review, TVA documented in the attached Categorical Exclusion Checklist (Appendix B) its determination that, other than floodplains



LOCATION MAP
1" = 3000'

XGIR-940H
0.535 ± AC.



The positions of corners and directions of lines are referred to the Tennessee State Coordinate System and NAD 27 Horizontal Datum. The elevations for establishing the contours are based on NGVD 1929.

LAND CONVEYANCE
GRANT OF EASEMENT
DECATUR COUNTY, TENNESSEE
SECOND CIVIL DISTRICT
KENTUCKY RESERVOIR
TENNESSEE VALLEY AUTHORITY
SURVEYING SERVICES

CHATTANOOGA
NOV 2007
DIMS 422 B 2007010
DIGITAL NO 00244010

- LEGEND
- Corner as described
 - Stamped Monument
 - △ Angle Iron
 - Point
 - Reservation Boundary
 - Flowage Easement
 - 360' Normal Pool Contour
 - Limits of Easement

Located on VT M Quad CLIFTON, TN, 33-WK.
Compiled from Reservation Map 08 MS 421 B 526-D-244 RL, and a survey dated 07-23-2002 by Denny A. Bush, RLS #1577, TN, Medina, TN.
Basis For Coordinates: 244-29
Basis For Azimuth: 244-29, To-244-13

Figure 3

SURVEYED P5597 DATE 07-23-2002
COMPLETED LLM DATE 10-21-2002
CHECKED DRS/HRW DATE 11-3-2002

and historic properties, impacts to natural features such as endangered and threatened species, wetlands, and water quality were either none or minor and insignificant. Therefore, the media or features receiving further attention in this EA are floodplains and cultural resources.

A large portion of the private land proposed for development has been used for agricultural purposes in the past. TVA's flowage easement rights over Dr. Lee's property include, among other rights, the right to permanently flood the land. According to the Farmland Protection Policy Act (FPPA), "farmland" excludes land already in or committed to urban development or water storage. Because this land is committed to water storage during flood events (see Floodplains below), TVA concludes that the land proposed for development is not farmland subject to the FPPA.

Floodplains

Affected Environment— The proposed RV camping lots development would involve construction of a road, underground and overhead utilities and riprap in the 100-year floodplain of the Tennessee River. Much of the land proposed for development is also subject to a flowage easement purchased by TVA in 1943 during the construction of the Kentucky Dam project. Under this easement, TVA has the right to permanently flood the land below elevation 368 msl and to prohibit or remove any obstructions that would interfere with navigation or flood control. With respect to the land between elevations 368 msl and 376 msl, which represents a relatively small portion of the Lee property, TVA has the right to flood only from December 1 to May 31 of each year. TVA also purchased the right to remove and keep removed "buildings and loose material that will float when the land is inundated."

The Lee property is within the 100-year floodplain, elevation 387.5 msl. Based on the topographic survey provided by Denny Bush Surveying, the ground elevation for this tract varies from about elevation 367.0 msl to about elevation 380.0 msl. A portion of this area would be covered with water during a 2-year flood event (elevation 376.2 msl). At the 100-year flood elevation, portions of the property would be flooded anywhere from about 7 to 20 feet deep. Little or no development has occurred on adjoining privately owned lands with TVA flowage easement rights.

During prolonged or heavy rainfall, tributaries to upper Kentucky Reservoir often create flood level backwaters which inundate a considerable amount of land near the reservoir, including many local state and county roads. As the case with most RV campgrounds in Decatur, Perry, and Hardin Counties, in the event of substantial flooding, Old Ferry Road would likely flood before the Forrest Crossing camping lots.

Environmental Consequences— The RV campground would be located within the limits of the 100-year floodplain, elevation 387.5 and also below the TVA Flood Risk Profile elevation of 389.5 msl. For compliance with Executive Order 11988 (Floodplains Management), a road, underground and overhead utilities, and shoreline stabilization with riprap are considered to be repetitive actions in the floodplain that generally result in minor floodplain impacts. The RV campground is considered to be a recreational use of the floodplain that would not result in adverse floodplain impacts provided the conditions for RV campgrounds located below elevation 389.5 msl are followed. To ensure that the project complies with the TVA Flood Control Storage Loss Guideline, the road fill can be no wider than 25 feet on the 50-foot road ROW. As mentioned, some 40 to 50 feet of the shoreline at this location has eroded away. This far exceeds the volume of riprap proposed below the 359.0 msl. Although the quantity of riprap would be more than 1 acre-foot, because of the current volume of eroded soil already removed there would be no loss of flood control storage.

From the standpoint of flood control, the proposed project and permanent easement would have insignificant impacts because the following conditions would be included in the final permit approval and the grant of permanent easement:

1. The road fill shall not exceed 25 feet in width within the 50-foot road right-of-way.
2. Dr. James M. Lee (owner of Forrest Crossing Development), his successors, designees, heirs, assigns, or transferees will notify TVA and obtain its advance approval if:
 - a. Any future facilities or equipment subject to flood damage or not flood-proofed is proposed to be located on land below the TVA Flood Risk Profile elevation 389.5 msl.
3. TVA reserves the right to flood Dr. Lee's private land as needed during flood control operations. This condition is included in the General and Standard Conditions included in TVA Section 26a and Land Use approvals.

To reduce the risk of flood loss and minimize the impacts of flooding on human safety, health, and welfare, certain types of vehicles are more appropriate than others for use in campgrounds located in such flood-prone areas. An RV is defined as a "unit" built on a single chassis and is 400 square feet or less when measured at the largest horizontal projection. Such units, as discussed below, are designed to be self-propelled or continuously tow-able by a light duty truck. They are not designed for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

For the portions of the RV campground that would be located below the TVA Flood Risk Profile or elevation 389.5 msl, the following commitments would be included in

its authorizations, including the permanent easement, to ensure TVA is not promoting unwise development in the floodplain:

1. All trailers and recreational vehicle (hereinafter called “units”) will remain truly mobile and ready for highway use. This means that the unit is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions, connections, foundations, porches, or similar structures.
2. All power installations would have a cutoff switch located at or above the TVA Flood Risk Profile or elevation 389.5 msl that is accessible during flooding. This condition is also included in the General and Standard Conditions included in TVA Section 26a and Land Use approvals.
3. No unit would be located on the site for more than 180 consecutive days.
4. No unit would be left unattended for more than 24 hours at a time from November 1 through March 31 of each year.

Conditions 2 and 3 would not apply if the campground has (1) a resident manager, (2) access to allow for the safe evacuation of units and their owners/users in the event of flooding, and (3) an evacuation plan is developed to ensure that the units will not be damaged during flooding and the owners/users would not be placed at unnecessary risk. The evacuation plan would need to be reviewed and approved by the local Emergency Management Agency.

Cultural Resources

Affected Environment—

Archaeological evidence indicates that the human occupation of Western Tennessee began between 10,000 B.C. and 8,000 B.C. The prehistoric occupation of the region can be divided into four broad cultural periods: Paleoindian, Archaic, Woodland, and Mississippian. These periods can be further broken into early, middle and late subdivisions. The most common prehistoric sites in this area are open habitation sites located in floodplain or uplands settings. European American settlement did not begin in this region until the late 18th century.

Settled in 1840 (Rains, 1998) and located immediately across the river from the proposed RV campground, is the historic Town of Clifton; portions of which are on the National Register of Historic Places (NRHP). Currently, there are six properties listed in the NRHP in Decatur County. None of these properties are located within the proposed project’s Area of Potential Effect (APE). Eight properties are listed for Wayne County. Two of these are located in the Town of Clifton (Water Street Historic District and First Presbyterian Church of Clifton). All or portions of the historic Town of Clifton are potentially eligible as a historic district.

The APE for purposes of compliance with Section 106 of the National Historic Preservation Act (NHPA) is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of NRHP eligible historic properties. As previously indicated, because federal approval would be needed to gain access to this property and proposed actions on the property need approval under Section 26a, the entire 40 acre development site is included in the APE. Also, because the proposed action would result in a highly visible change of land use, all areas from which the project would be seen are also included in the APE for visual effects on historic properties. This includes the view perspective from Town of Clifton across the river.

A Phase I archaeological survey (Matthews, 2002) was conducted to identify resources within the 40-acre development tract and the road, utility construction and access ROW. This survey examined surface and near surface deposits (ground surface to a depth of 35 inches) and assessed the potential for the presence of more deeply buried archaeological sites. The geomorphic and geo-archaeological assessment identified a potential for buried sites to be present along the eroding river terrace on the southern half of the property (shown as Area 1 in Figure 2 in the Memorandum of Agreement (MOA) in Appendix C).

The Phase I survey identified two previously recorded archaeological sites (40DR102 and 40DR226). No new archaeological sites were identified during this survey. Site 40DR102 was determined to be potentially eligible for the listing and site 40DR226 was determined to be eligible for listing on the NRHP. Based on the results of the Phase I survey, further testing must be conducted to:

- a) delineate the boundaries of 40DR226
- b) identify and delineate significant deposits that may be present at 40DR102;
and
- c) identify and delineate any additional buried sites that may be present within Area 1 of the APE.

TVA has determined, in consultation with the Tennessee State Historic Preservation Officer (TN SHPO), that this work would need to be conducted prior to any soil disturbance or construction activity associated with the proposed development.

Environmental Consequences—TVA, in consultation with the TN SHPO and other consulting parties, has determined that the Forrest Crossing Development will adversely affect historic properties and archaeological resources that are listed, eligible or potentially eligible for listing in the NRHP within the undertakings APE. Therefore, pursuant to 36 CFR Part 800 and in order to mitigate the adverse effects of the undertaking, TVA, in consultation with the SHPO, has developed a MOA which addresses identification, evaluation, phased assessment and treatment of adverse

effects on listed or eligible NRHP historic resources in Area 1 of the APE. The provisions and stipulations of the MOA are incorporated by reference in this EA (see the executed MOA in Appendix C). To ensure TVA's compliance with Section 106 of the NHPA, Dr. Lee would adhere to these provisions and stipulations. The treatment plans would minimize impacts on archaeological resources and the vegetative buffer would minimize impacts on the historic Town of Clifton. Also, see correspondence between TVA and TN SHPO in Appendix D.

Project Mitigation Measures— No significant environmental effects are expected to occur from the proposed project provided protective commitments and needed mitigation measures outlined below are implemented in accordance with any MOA specified schedule or otherwise, in a timely manner. General and Standard Conditions included in TVA Section 26a and Land Use approvals, particularly those standard conditions associated with structures and facilities, ownership rights, shoreline modification and stabilization, and best management practices, will be required to prevent or minimize negative impacts. These conditions are included in Appendix E of the FEA.

In addition to these conditions, approval of this action will include the following additional special commitments.

- 1). For the portions of the RV campground that will be located below the TVA Flood Risk Profile elevation or elevation 389.5 msl, the following commitments shall be included in the grant of permanent easement:
 1. All trailers and recreational vehicles (units) will remain truly mobile and ready for highway use.
 2. No unit will be located on the site for more than 180 consecutive days.
 3. No unit will be left unattended for more than 24 hours at a time from November 1 through March 31 of each year.

Commitments 2 and 3 will not apply if the RV campground has (1) a resident manager, (2) access to allow for the safe evacuation of units and their owners/users in the event of flooding, and (3) an evacuation plan reviewed and approved by the local Emergency Management Agency is developed.

- 2). From the standpoint of flood control, the proposed project and permanent easement would have insignificant impacts because the following commitments would be included in the final permit approval and the permanent easement:

1. The road fill shall not exceed 25 feet in width within the 50-foot road right-of-way.
2. Dr. James M. Lee, his designees, heirs, assigns, or transferees will notify TVA and obtain its advance approval if:
 - a. Any future facilities or equipment subject to flood damage or not flood-proofed is proposed to be located on land below the TVA Flood Risk Profile elevation 389.5 msl.
- 3). Dr. James M. Lee (owner of Forrest Crossing Development) will adhere to the provisions and stipulations of the executed Memorandum of Agreement (Appendix C).
- 4). Approximately 11,722 cubic yards of limestone riprap proposed to be placed between elevations 359.0 and 378.0 msl along about 3100 feet of Kentucky Reservoir's shoreline. The following conditions, agreed upon by the TN SHPO, will be included in TVA's Section 26a permit:
 - a) No excavation or reshaping of the river bank will occur;
 - b) All vegetation removed will be cut above ground and by hand; and
 - c) Work will be conducted during dry conditions.

Preferred Alternative— TVA's preferred alternative is the Action Alternative. Under this alternative, TVA would grant a permanent easement across Tract No. XGIR-940H and issue a Section 26a permit to Dr. James M. Lee for a road, utilities, shoreline stabilization and construction and sale of RV camping lots on Tract No. GIR-7673F, Kentucky Reservoir. Mitigation measures to address the effects of the resulting development on historic properties (see MOA in Appendix C) and to protect floodplains values would be implemented.

References

- Matthews, John 2002. *Cultural Resources Survey, Archaeological Testing and Geomorphic/Geoarchaeological Field Assessment Forrest Crossing Real Estate Development, Kentucky Lake, Decatur County, Tennessee*. Report prepared by Greenhouse Consultants, Inc. for Dr. James M. Lee. Report on File in the Cultural Resources Office of the Tennessee Valley Authority, Norris.
- Rains, Bob. 1998. *Wayne County*. In "The Tennessee Encyclopedia of History and Culture," edited by Carroll Van West, pg. 1041. Tennessee Historical Society, Rutledge Hill Press, Nashville.
- Tennessee Valley Authority. 1985. *Kentucky Reservoir Land Management Plan, Reservoir Lands Planning Program, TVA, ONRED, Division of Land and Economic Resources, Norris, Tennessee, in cooperation with the Office of Agricultural and Chemical Development and Power and Engineering (includes Appendices A thru D).[approved by the TVA Board of Directors, July 1985], 19pp.*

List of Preparers

- Stanford D. Davis, Senior NEPA Specialist, NEPA Administration, Environmental Policy and Planning, Knoxville, Tennessee
- Randy E. Lowe, Land Use Representative, Kentucky Watershed Team, Paris, Tennessee
- Roger A. Milstead, Manager, Flood Risk and Data Management, River Operations, Knoxville, Tennessee
- Erin E. Pritchard, Archeologist, Resource Stewardship, Norris, Tennessee

Agencies/Others Consulted

- Southwest Tennessee Development District
- Tennessee Department of Agriculture
- Tennessee Department of Environment and Conservation
- Division of Natural Heritage
 - Division of Recreation Services
 - Division of Water Pollution Control
 - Environmental Policy Office
 - Tennessee Historical Commission
- Tennessee Department of Economic and Community Development
- Tennessee Department of Transportation
- Tennessee Wildlife Resources Agency
- U.S. Army Corps of Engineers
- U.S. Department of the Interior, Fish and Wildlife Service
- Chickasaw Nation

Appendices

- A. U.S. Army Corps of Engineers, Final Environmental Assessment, Statement of Findings, and Finding of No Significant Impact (File No. 200201444) – Dr. James Lee, Application for Proposed Riprap Bank Stabilization at Tennessee River Mile 157.5, Left Bank, Kentucky Lake, Decatur County, Tennessee

- B. Categorical Exclusion Checklist

- C. Memorandum of Agreement (MOA) pursuant to 36 CFR Part 800 between TVA, the Tennessee SHPO, and Dr. James M. Lee

- D. Intergovernmental Review and Coordination

- E. General and Standard Conditions - Section 26a and Land Use