

CHAPTER 1

1. PURPOSE OF AND NEED FOR ACTION

1.1. Background

Tennessee Valley Authority (TVA) proposes to update the 1988 *Watts Bar Reservoir Land Management Plan* (1988 Plan) for TVA public land around Watts Bar Reservoir. TVA has been charged by Congress with improving navigation, controlling floods, providing for the proper use of marginal lands, providing for industrial development, and providing power at rates as low as feasible, all for the general purpose of fostering the physical, economic, and social development of the Tennessee Valley region. The lands that TVA holds as steward in the name of the United States are some of the most important resources of the region. They have provided the foundation for the great dams and reservoirs that protect the region from flooding and secure for its residents the benefits of a navigable waterway and low-cost hydroelectricity. TVA's lands are the sites for its power generating system and the arteries for delivering power to those that need it. Many of the region's parks, recreation areas, and wildlife refuges that are so important for the region's quality of life are on lands that TVA made available for these uses. TVA's lands often have been the catalyst for public and private economic development activities.

TVA originally acquired approximately 1.3 million acres of land in the Tennessee Valley. The construction and operation of the reservoir system inundated approximately 470,000 acres with water. TVA has already transferred or sold approximately 508,000 acres, the majority of which was transferred to other federal and state agencies for public uses. TVA currently owns approximately 293,000 acres, which continue to be managed pursuant to the TVA Act.

As stewards of this important resource, it is TVA's policy to manage its lands to protect the integrated operation of the TVA reservoir and power systems, to provide for appropriate public use and enjoyment of the reservoir system and to provide for continuing economic growth in the Valley. TVA recognizes that historical land transfers have contributed substantially to meeting these multipurpose objectives and it is TVA's policy to preserve reservoir lands remaining under its control in public ownership except where different ownership would result in significant benefits to the public.

Watts Bar Reservoir is a 67-year-old multipurpose impoundment of the Tennessee River formed by Watts Bar Dam and Lock, which is located at Tennessee River Mile (TRM) 530 in Meigs and Rhea counties, Tennessee. Currently, TVA owns and manages about 16,220 acres of land on the reservoir. TVA proposes to use an updated *Watts Bar Reservoir Land Management Plan and Final Draft Environmental Impact Statement* (Land Plan) to guide future decision-making and manage these reservoir properties.

The reservoir flows from the northeast to southwest through Loudon, Meigs, Rhea, and Roane counties in east Tennessee. The reservoir extends 72.4 miles up the Tennessee River to Fort Loudoun Dam, and 62.5 miles to Melton Hill Dam on the Clinch River. It also includes parts of the Emory and Little Emory Rivers (see Figure 1.1-1). At full pool, the reservoir shoreline length is 721 miles and the surface area is about 39,000 acres. Of the

Watts Bar Reservoir Land Management Plan

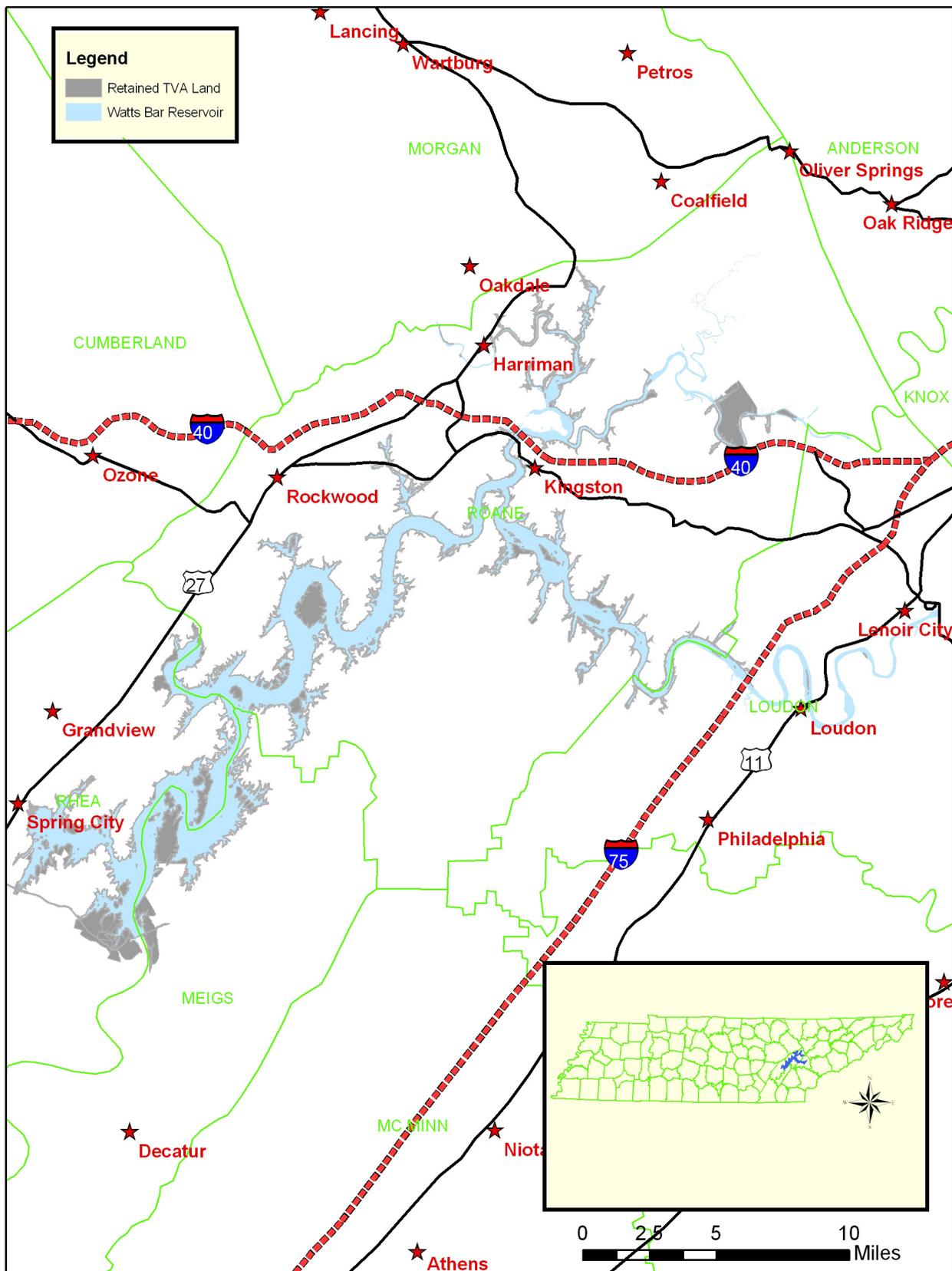


Figure 1.1-1. Map of Watts Bar Reservoir and Vicinity

721 miles of shoreline, 340 miles (47 percent) are available for Shoreline Access uses (where TVA sold tracts with deeded or implied rights for access and/or water use facilities across TVA land), which include current development. The available area also includes previously planned lands determined by TVA policy to be available for consideration of water use facilities.

TVA originally acquired approximately 55,000 acres of land for the Watts Bar project including flowage and easements (TVA 1949). Subsequent purchases for fossil and nuclear plants, transfers and/or sales of land to U.S. Department of Energy (USDOE), and for various commercial, industrial, residential, and recreational uses have resulted in a current balance of about 16,220 acres of TVA public land being available for lands planning.

TVA manages public land on Watts Bar Reservoir to protect and enhance natural resources, generate prosperity, and improve the quality of life in the Tennessee Valley. This TVA public land, together with adjoining private land, is used for public and commercial recreation, economic development, natural resource management, and a variety of other community needs. The purpose of the land planning effort is to apply a systematic method of evaluating and identifying the most suitable use of public land under TVA stewardship. Public input and resource data are used to help allocate land to the following land management categories or allocation zones: Zone 1 - Non-TVA Shoreland, Zone 2 - Project Operations, Zone 3 - Sensitive Resource Management, Zone 4 - Natural Resource Conservation, Zone 5 - Industrial, Zone 6 - Developed Recreation, and Zone 7 - Shoreline Access (see Section 2.1.2). These allocations are then used to guide the types of activities that would be considered on each parcel of land. Each reservoir land management plan is submitted for approval to the TVA Board of Directors and adopted as policy to provide for long-term stewardship and accomplishment of TVA responsibilities under the TVA Act of 1933.

1.2. Purpose and Need

TVA proposes to update the 1988 *Watts Bar Reservoir Land Management Plan* (1988 Plan) for approximately 16,220 acres of TVA public land on Watts Bar Reservoir in Loudon, Meigs, Rhea, and Roane counties, Tennessee. The proposed updated *Watts Bar Reservoir Land Management Plan and Final Environmental Impact Statement* (Land Plan) would guide land use approvals, private water use facility permitting, and resource management decisions on Watts Bar Reservoir. The proposed Land Plan allocates land into broad categories or “Zones,” of uses.

TVA intends to provide a clear statement of how its land would be managed in the future based on scientific, cultural, economic principles and on public needs. TVA considers a wide range of possible land uses in the development of the proposed alternatives for the Land Plan. The Land Plan alternatives were developed using information obtained from the public, various state and federal agencies, elected officials, resource conservation groups, and other interested groups; existing and newly collected field data, both on land conditions and resources; and technical knowledge of TVA staff. Based on this information, TVA proposes to allocate each land parcel into one of the seven land use zones.

The goals of the Land Plan include the following:

Goal 1: Apply a systematic method of evaluating and identifying the most suitable uses of TVA public lands using resource data, stakeholder input, suitability and capability analyses, and TVA staff input.

Goal 2: Identify land use zone allocations to optimize public benefit and balance competing demands for the use of public lands.

Goal 3: Identify land use zone allocations to support TVA's broad regional resource development mission. TVA reservoir properties are managed to provide multiple public benefits including recreation, conservation, and economic development.

Goal 4: Provide a clear process by which TVA will respond to requests for use of TVA public land.

Goal 5: Comply with federal regulations and executive orders (EOs).

Goal 6: Ensure the protection of significant resources, including threatened and endangered species, cultural resources, wetlands, unique habitats, natural areas, water quality, and the visual character of the reservoir.

Goal 7: Provide a mechanism that allows local, state, and federal infrastructure projects when the use is compatible with the zone allocation.

The purpose of this final environmental impact statement (FEIS) is to identify and assess the environmental impacts of a reasonable range of alternatives for allocating the uses of TVA managed public land around Watts Bar Reservoir. TVA has prepared this FEIS in accordance with the Council on Environmental Quality regulations and TVA procedures for implementing the National Environmental Policy Act (NEPA).

1.3. Development and Modification of the Land Plan

Following the May 2005, release of the *Watts Bar Reservoir Land Management Plan and Draft Environmental Impact Statement* (TVA 2005a), the TVA Board instituted a TVA Land Policy (see Appendix A) governing TVA's retention, disposal, and planning of the public lands it managed. To implement this November 2006 directive from the TVA Board, some proposed allocation zones of the action alternatives were updated to reflect the land policy (see Section 1.3.2). These modifications along with other minor changes were provided in the *Watts Bar Reservoir Land Management Plan and Amended Draft Environmental Impact Statement* (TVA 2007c) issued in August 2007.

During the development of the alternatives for the final land plan, modifications were proposed to the 1988 Plan as a result of additional data and information, TVA policy and program needs, public and agency comments, and minor administrative changes. The alternatives for this Land Plan incorporate the substantive modifications and changes proposed by the previous draft plans. All of these versions including the final Land Plan are an outcome of the planning process described in Section 1.2.

Coal Ash Spill at Kingston Fossil Plant (KIF)

On December 22, 2008, a dike failed at KIF, releasing about 5.4 million cubic yards of coal ash that was estimated in January 2009 to cover about 275 acres of TVA and private land, including two coves on Watts Bar Reservoir. Local roads past the Kingston plant and about 3,000 feet of rail were damaged when the ash release occurred. Navigation on the Emory River from Emory River Mile (ERM) 0 through ERM 4 was temporarily suspended. Emergency response operations were immediately initiated, and impacts to environmental resources and private and public property were being assessed at the time this FEIS was published.

All or parts of at least six parcels (other than KIF) proposed for consideration in the Land Plan action alternatives were impacted directly by the spill. The area of these parcels total about 133.5 acres above mean summer pool elevation. Parcel 188 with 25.2 acres was proposed for allocation to Zone 3 (Sensitive Resource Protection) because of the presence of wetlands. Parcels 187 and 189, totaling 76.7 acres, were proposed for Zone 4 (Natural Resource Conservation). The 28.8 acres of Parcel 184 were proposed for Zone 7 (Shoreline Access). Parcels 12-45 and 12-51 (about 2.8 acres) are currently licensed to the Tennessee Wildlife Resources Agency (TWRA) for boat access ramps and proposed for Zone 6 (Developed Recreation). In addition, the approximately 84-acre containment pond, which includes 60 acres from which the ash slide occurred, is part of the KIF site (Parcel 190) proposed to be allocated to Zone 2 (Project Operations).

In January 2009, TVA began developing a recovery plan that would address remediation of the area affected by the ash spill, including any areas within the above parcels that have been impacted. The appropriate future uses of these six parcels will be determined during this recovery planning process. Since the vast majority of land parcels on Watts Bar Reservoir are unaffected by the spill, TVA has decided to move ahead with the land planning process for this reservoir, recognizing that the continued appropriateness of the allocation of these six affected parcels will be reevaluated through the recovery planning process. Future TVA actions to reallocate any of the six parcels will be subject to environmental reviews under NEPA.

1.3.1. Natural Resource Management

The May 2005 Plan and draft environmental impact statement (DEIS) included an Integrated Resources Management (IRM) approach to resource management evaluation that would have established management prescriptions or activities for visual, recreational, cultural, and natural resources on parcels with manageable resources. However, TVA is currently developing a new Natural Resource Management Strategy to replace IRM that would promote better integration of TVA's management of visual, recreational, cultural and natural resources, and public use on parcels allocated for recreation, resource protection and conservation. Following approval of the Natural Resource Management Strategy, specific integrated implementation plans will be developed to guide future management on tracts allocated for the above uses.

TVA Environmental Policy

On May 19, 2008, the TVA Board of Directors approved the TVA Environmental Policy. The policy is intended to provide guidance for TVA's business decisions as the agency provides electric energy, sustainable economic development, and environmental stewardship for the Tennessee Valley. As a regional development agency and the nation's

largest public power provider, TVA is committed to protecting and sustaining the environmental resources of the Tennessee Valley for future generations through leadership in clean energy innovation and environmental management.

Natural Resource Management Goals

In managing its public lands and resources, TVA seeks to provide efficient resource stewardship that is responsive to stakeholder interests. TVA intends to manage its public land for an optimum level of multiple uses and benefits that protect and enhance natural, cultural, recreational, and visual resources in a cost-effective manner. Through this approach, TVA ensures that resource stewardship issues and stakeholder interests are considered while optimizing benefits and minimizing conflicts. Resource management is based on cooperation, communication, coordination, and consideration of stakeholders potentially affected by resource management. TVA recognizes that the management or use of one resource affects the management or use of others; therefore, an integrated approach is more effective than considering resources individually.

In managing public lands and resources under its authority, TVA seeks to:

- Provide effective and efficient management of natural, cultural, visual, and recreation resources to meet all regulatory requirements and applicable guidelines.
- Apply an integrated, proactive, approach to natural resource management that balances the competing interests of stakeholders, while conserving and enhancing natural, cultural, visual, and recreation resources.
- Ensure the availability of a diversity of quality, affordable, public outdoor recreation opportunities.
- Manage resources in a cost-effective manner.

1.3.2. TVA Land Policy

In November 2006, the TVA Board instituted a TVA Land Policy (see Appendix A) governing TVA's retention, disposal, and planning of its lands. This policy describes residential, economic development, recreation, and other uses for TVA's reservoir lands; provides specific definitions of these uses; and requires a suitability assessment of all TVA land allocated for recreation and economic development use. This directive from the TVA Board has been incorporated into the Land Plan.

In particular, Economic Development (Zone 5) was renamed 'Industrial' to be consistent with other TVA land plans, and modified by the elimination of residential and retail use of TVA lands. Also, preference will be given to future industrial proposals requiring water access. The definition of Developed Recreation (Zone 6) was modified to clarify that residential development is not an accepted use of TVA lands. It also included modifications to the description of water-based recreation and more specific descriptions of Public and Commercial Recreation uses and expectations (see Table 2.1-2).

1.3.3. Former Clinch River Breeder Reactor (CRBR) Site

Under the action alternatives there would be additional buffers along the Clinch River by expanding parcels allocated for the protection of sensitive resources. With this change

almost all of the perimeter of the former CRBR site adjacent to the reservoir would be incorporated in a buffer to protect cultural resources, sensitive plants, or wetlands.

Under the Modified Alternative B, the allocation of the parcels collectively referred to as the former CRBR site (Parcels 142, 142, 145, and 148) would be changed from industrial to project operations for possible use for a power generation facility. Growth in the Tennessee Valley continues to increase about 1.9 percent per year and as growth continues the demand for electricity increases. TVA intends to reserve the site to meet possible future electric power demands.

By allocating the former CRBR site to power generation, it could be available for power generating facilities when the need arises. TVA plans a future site characterization study to determine its usefulness as a power operation facility. The study will look at the attributes of the site including transmission line access, transportation access and characterize the site soil and land suitability for a large construction project.

1.3.4. Other Modifications

This Land Plan incorporates minor changes that reflect new information about deeded rights, natural resources, or improve understanding.

Administrative

Minor corrections occurred in acreage or boundaries for about 30 parcels as a result of more accurate mapping techniques and oversight. In addition, a reevaluation of deeded access rights revealed a need to designate about 20 parcels or parts of parcels to a different land use zone. About 13 acres were added to Watts Bar Reservoir land due to the completion of land exchanges or agreements. All of these administrative changes are minor, resulting in corrections to the zones of less than 50 acres and a net decrease of about 26 acres when compared to previous draft plans (see Table B-1 in Appendix B).

Parcel Boundary

The action alternatives in this Land Plan include the redrawing of some parcel boundaries to change their size or create new parcels for the protection of sensitive resources, augment commercial navigation safety landings, or allow for improved project operations. Modifications to parcel boundaries and land use allocation that could better provide for the suitability and proposed use of specific TVA land are described in Chapter 2 descriptions for the action alternatives.

Land Use Designation

The action alternatives include the redrawing of some parcel boundaries to change their size or create new parcels for the protection of sensitive resources, augment commercial navigation safety landings, or existing industrial operations. Modifications to parcel boundaries and land use allocation that could better provide for the suitability and proposed use of specific TVA land are described in Chapter 2 descriptions for the action alternatives.

Zone Definitions

In addition to the modifications described to comply with the Land Policy, minor changes were made to the definitions of the land allocation zones of the action alternatives for clarification and ease of understanding.

1.4. The Decision

The TVA Board of Directors will decide which of the Land Plan action alternatives to adopt or whether to continue the use of the existing 1988 Plan.

1.5. Other Pertinent Environmental Reviews or Documents

Watts Bar Reservoir Land Management Plan (TVA 1988)

In August 1988, the TVA Board of Directors approved a land management plan to guide TVA resource management and property administration decisions on 10,405 acres of TVA land on Watts Bar Reservoir. A multidisciplinary TVA team undertook a detailed planning process that resulted in the land use designation in the plan. Both public input and information from TVA specialists were analyzed in making land use decisions. The 207 tracts of land on Watts Bar Reservoir were allocated for one or more of these 19 different land use allocations (see Section 2.1).

Record of Decision for the Lower Watts Bar Reservoir (USDOE 1995)

The record of decision (ROD) for lower Watts Bar Reservoir was prepared by USDOE in accordance with the requirements under the Comprehensive Environmental Response, Compensation, and Liability Act to present the remedy that addresses the contamination of the Watts Bar Reservoir area by past USDOE operations. Remediation includes the continuance of institutional controls and long-term monitoring of water, sediment, and fish. Institutional controls are implemented primarily by the Watts Bar Working Group (WBWG), created in 1991, of which TVA is a signatory member along with the U.S. Environmental Protection Agency (USEPA), Tennessee Department of Environment and Conservation (TDEC), U.S. Army Corps of Engineers (USACE), and the USDOE. The WBWG implements a notification and screening methodology for member agency actions that may be impacted by the contaminants, whereby USDOE can then identify contaminants and provide appropriate remediation.

Proposed Sale of TVA Tract No. XWBR-688IE (Parcels 1 and 2) on Watts Bar Reservoir to Scientific Ecology Group Inc. and Approval of Operations of Additional Facilities and Modifications to Existing Facilities Environmental Assessment (TVA 1995)

TVA assessed the environmental impacts associated with alternatives derived from a request by Scientific Ecology Group Inc. (SEG) to purchase TVA Tract XWBR-688IE, on which it had been operating under a lease agreement. In addition, SEG requested approval to build and operate additional waste management facilities and to modify the operation of existing facilities. The alternative selected by TVA allowed the sale and operation changes with commitments by SEG to reduce impacts to water quality and the expansion of the TVA Grassy Creek Habitat Protection Area (HPA) onto adjacent portions of Parcels 1 and 2.

Shoreline Management Initiative (SMI): An Assessment of Residential Shoreline Development Impacts in the Tennessee Valley Final Environmental Impact Statement (TVA 1998)

TVA completed an environmental impact statement (EIS) on possible alternatives for managing residential shoreline development throughout the Tennessee River Valley. Under the alternative selected, sensitive natural and cultural resource values of reservoir shorelines would be conserved and retained by preparing a shoreline categorization for individual reservoirs; by voluntary donations of conservation easements over flowage easement or other shoreland to protect scenic landscapes; and by adopting a “maintain and

gain” public shoreline policy when considering requests for additional shoreline access rights. This Land Plan will tier from the final SMI EIS.

The residential shoreline on Watts Bar Reservoir comprises 340 miles or 47 percent of the total 721 miles of shoreline. In accordance with the TVA Shoreline Management Policy (SMP), TVA categorized the residential shoreline for previous land plans based on resource data collected from field surveys. A resource inventory was conducted for sensitive species and their potential habitats, archaeological resources, and wetlands along the residential shoreline.

The shoreline categorization system established by SMP is composed of three categories:

- **Shoreline Protection** for shoreline segments that support sensitive ecological resources, such as federally listed as threatened or endangered species, high-priority state-listed species, wetlands with high function and value, archaeological or historical sites of national significance, and certain navigation restriction zones. Within this category, all significant resources will be protected. Docks and other residential shoreline development would not be permitted on land within the Shoreline Protection category because of the sensitive nature of the resources contained in this area or because of navigation restrictions.
- **Residential Mitigation** for shoreline segments where resource conditions or certain navigation restrictions would require analyses of individual development proposals, additional data, or specific mitigation measures. Section 26a (of the TVA Act) applications for docks and other residential shoreline development in the Residential Mitigation area would be reviewed by TVA for compliance with the SMP and Section 26a regulations. Development restrictions or mitigation measures may be necessary in this shoreline category.
- **Managed Residential** for shoreline segments where no sensitive resources are known to exist. Standard environmental review would be completed for any proposed action. Section 26a applications for docks and other shoreline development in the Managed Residential area would be reviewed for compliance with the SMP and Section 26a regulations.

As new data are collected on the spatial location and significance of endangered species, wetlands, cultural resources, or navigation restrictions, adjustments to category boundaries have been found to be necessary. Through experience with the shoreline categorization process set up in 1999 by the SMI EIS (TVA 1998), TVA believes that the value of advance categorization is less than when SMP was implemented. Today's technology provides the ability to identify sensitive resources during permitting evaluations. Today's resource databases are interactive and continually updated to allow ease of use of latest information in permitting decisions. In addition, TVA's experience in permitting suggests that the Shoreline Protection category is not a prohibition on permitting because mitigation techniques are often available. Because resource data are continually updated, shoreline categorized as Managed Residential (no sensitive resources exist) may change as updated resource surveys are conducted. Based on these considerations, TVA is not providing a complete categorization of residential shoreline with this Land Plan.

With the current proposed Land Plan, TVA has categorized shoreline in areas undergoing high development pressure as indicated by the volume of permit requests in the last few

years. In the future, the shoreline will be gradually categorized in response to permit requests. Because the permit reviews provide current real-time information, over time this will result in more accurate shoreline resource inventories, thus meeting the intent of the SMP shoreline categorization system.

Sale of Boeing Land Environmental Assessment (USDOE 2000)

USDOE prepared this environmental assessment (EA) to review the impacts of selling a narrow strip of former TVA land on the Clinch River to a private developer. Sale of this property reduced the amount of non-TVA-owned public shoreline and changed it to private shoreline available for shoreline access.

Final Supplemental Environmental Impact Statement (SEIS): Kingston Fossil Plant Alternative Coal Receiving Systems (TVA 1999a)

This SEIS analyzes a new alternative for a coal delivery system at Kingston Fossil Plant (KIF). In a ROD dated March 10, 1997, TVA decided to implement an alternative from the 1997 *Final Environmental Impact Statement: Kingston Fossil Plant Alternative Coal Receiving Systems*, which would have resulted in the reduction of coal transportation costs by the construction of a new railroad spur from Harriman, Tennessee, to KIF. The 1997 alternative included the railroad crossing Emory River and several streams and impacted the Swan Pond area of Roane County, including both private and TVA lands. Prior to construction, TVA received a proposal from one of the railroads providing service to KIF, which allows the two railroads involved direct access to the KIF yard via existing facilities and reduces coal transportation costs by eliminating associated switching fees. With the decision to use this new alternative, the environmental and physical impacts from the construction of the railroad spur did not occur.

Agricultural Lands Licensing for 1999 Through 2003 Crop Years for Fontana, Fort Loudoun, Melton Hill, Tellico, and Watts Bar Reservoirs Environmental Assessment (TVA 1999b)

TVA reviewed the environmental impacts associated with licensing 74 tracts of TVA land totaling over 1,200 acres to individuals for agricultural use on lands around five TVA reservoirs in east Tennessee and North Carolina. Thirty-four of these tracts totaling 335 acres are on Watts Bar Reservoir and are part of the TVA lands currently being planned. TVA is currently reassessing the continued licensing of these tracts.

Lower Watts Bar Management Unit Watts Bar Reservoir, Resource Management Plan and Final Environmental Assessment (TVA 2000)

TVA completed an Environmental Assessment (EA) on possible alternatives for determining the scope and intensity of TVA's resource management activities for the Lower Watts Bar Management Unit (LWBU) and implementing a management plan for the LWBU. The 3,481-acre LWBU is a major component of the TVA land that is the subject of the current planning process.

Proposed Land Use Allocation Change and Request for a Commercial Recreation License and Section 26a Approval for Whitestone Country Inn Environmental Assessment (TVA 2001a)

TVA reviewed the environmental impacts associated with the approval of a request by Whitestone Country Inn to change the land use allocation from Wildlife and Forest Management and Historic Preservation to Commercial Recreation; approve under Section 26a; and issue a commercial recreation license for a six-boat slip marina for 0.76 acre of TVA land. Included in the approval conditions was the transfer of 11.47 acres of lakefront and shoreline property to TVA to replace resources degraded by the operation.

Modernization of Turbines at Watts Bar Hydro Plant, Rhea County, Tennessee Environmental Assessment (TVA 2001b)

The environmental impacts attributed to the modernization of the electric generating turbines at the Watts Bar Dam and Hydro Plant were reviewed. Commitments of the action alternative include the stabilization of shoreline on TVA land considered by the current planning process.

Proposed Issuance of Regulations Under Section 26a of the TVA Act for Nonnavigable Houseboats, Storage Tanks, Marina Sewage Pump-Out Stations, Wastewater Outfalls and Septic Systems, and Development Within Flood Control Storage Zones Environmental Assessment (TVA 2001c)

In 2001, TVA completed an EA for its issuance of regulations for nonnavigable houseboats, storage tanks, marina sewage pump-out stations, wastewater outfalls, septic systems, and development within flood control storage zones of TVA reservoirs. The complete update of the 1971 Section 26a regulations, incorporating the standards for residential development in the SMI EIS and the miscellaneous updates above, became final on September 8, 2003. Taken together, these regulations comprehensively updated the TVA requirements for development along the shoreline of TVA reservoirs, including Watts Bar. The regulations for marina sewage pump-out stations and holding tanks, fuel storage tanks and handling facilities, and development within the flood control storage zones were new. Actions requiring Section 26a approval by TVA frequently are requested and occur on TVA reservoir lands and consequently are governed by TVA Section 26a regulations.

Complete details on the new Section 26a regulations may be obtained from TVA watershed teams or by viewing the regulations at www.tva.gov/river/26apermits/index.htm.

Commercial Recreation License and Marina Expansion for Blue Springs Marina, Roane County Tennessee, Environmental Assessment (TVA 2002)

TVA reviewed the environmental impacts associated with approving and issuing a license for a request by Blue Springs Marina to expand and operate its marina on Watts Bar Reservoir. The proposal includes the addition of 104 boat slips and improvements to private property, TVA land, and the adjacent TWRA boat ramp facility.

Completion of Watts Bar Nuclear Plant Unit 2, Rhea County, Tennessee, Supplemental Environmental Impact Statement and Record of Decision (TVA 2007a)

On August 2, 2007, TVA issued a Record of Decision (ROD) for the proposed completion and operation of Watts Bar Nuclear (WBN) Plant Unit 2. TVA has decided to implement the preferred alternative identified in its final supplemental environmental impact statement (SEIS) for the Completion and Operation of Watts Bar Nuclear Plant Unit 2, Rhea County, Tennessee. The final SEIS, issued June 23, 2007, supplemented the substantial environmental record previously prepared for actions related to the construction and operation of WBN, including an update of the need-for-power analysis.

Under the selected alternative, TVA will meet the need for additional base-load electrical generating capacity in the TVA system and for maximizing the use of its existing assets. The unit will be completed as originally designed; incorporating additional modifications made to its sister unit, WBN Unit 1, which has been operating since 1996. No expansion of the existing site footprint will be required. TVA currently holds a valid construction permit for completing WBN Unit 2.

1.6. The Scoping Process

TVA determined that the development of an EIS would allow a better understanding of the impacts of any proposed land use changes. Accordingly, TVA published a notice of intent (NOI) to prepare an EIS in the *Federal Register* on February 25, 2004.

From February 16, 2004, to October 8, 2004, TVA sought comments from citizens, various state and federal agencies, elected officials, resource conservation groups, and other organizations. TVA advertised public participation opportunities through news releases and paid advertisements in newspapers and letters and questionnaires were sent to individuals on the Watts Bar Reservoir mailing list. Stakeholder organizations and local, state, and federal agencies were contacted for scoping meetings. To announce the public comment period and public meeting dates, TVA placed paid advertisements in eight local newspapers and notices were also displayed at various public places around Watts Bar Reservoir. To provide for better identification of issues and alternatives to be considered in the Land Plan, a revised NOI was published in the *Federal Register* on April 18, 2004, extending the scoping comment period to June 30, 2004. On August 16, 2004 an announcement of the September 28, 2004, public meeting and extension of the public comment period to October 8, 2004, was published in the *Federal Register*.

In addition to the notices in the *Federal Register*, public notices appeared in regional and local newspapers in August 2004. There were also several newspaper articles published during the comment period. From March 2004 through October 2004, public participation was sought to assist TVA in identifying specific future uses for TVA managed lands around Watts Bar Reservoir and issues to be addressed in the EIS. To provide additional opportunities for public input, TVA hosted a public meeting. During the public meeting, information forms, writing material, and a stenographer were available on site for people to make comments. A total of 142 participants attended the public meeting in Harriman, Tennessee. Over 1,000 information forms were mailed to interested people and information forms were distributed at over 20 briefing sessions with stakeholder groups. In addition, information about the proposed Land Plan and an interactive information form were available on the TVA Web site. TVA received 95 individual letters or e-mails from 88 individuals, 126 information forms either mailed or entered on the Web site, and a petition with 183 signatures. All together TVA received a total of 397 specific comments from 214 individuals. See scoping document in Appendix C.

1.6.1. Scoping Response

The majority of the public scoping response to the NOI focused on the use of public lands for private residential and commercial development and the associated environmental impacts that could occur. Many comments expressed concerns about the importance of water quality and terrestrial and aquatic ecology and questioned the economic need for development given the success of similar projects on private land. There were also many comments about TVA's management of public lands, the planning for the management and use of public lands, and the potential results of TVA's management and planning.

The public responses in support of the increasing economic and community development described the potential to have a positive impact to the area economy. Commenters cited boosts to the local economy and an increase in land values, jobs, and taxes available for local government as positive results. They cited the opportunity to create jobs, commerce, increase tax bases, and infrastructure as important to their communities and expressed the need for a new 'mixed use' TVA land zone utilizing a variety of uses, such as residential,

commercial/light industrial, and recreation (live, work, play) developments. However, several respondents on this issue commented on the need to limit or stop industrial, commercial, and residential development on Watts Bar Reservoir, expressing a concern for the destruction of natural surroundings due to continued development and that the loss of undeveloped natural land would decrease the socioeconomic value of the area.

Commenters opposing development stated that TVA should keep all land public and not develop reservoir lands. They were concerned that other public lands similarly designated would also be made available for development. Commenters stated that selling the land is contrary to public opinion and contrary to past TVA decisions not to develop this public land and would, therefore, increase public distrust of TVA.

Much of the public response focused on philosophical opposition to use of public lands for private residential and commercial development and the associated impacts that would occur. From all the comments provided, six predominant themes or general issues were identified: Natural Resources, Loss of Public Lands, Residential/Commercial Developments and Socioeconomics, Land Use Policy and Planning, Recreation Resources, and Proposals (i.e., development of Lowe Branch and the former CRBR site). Of these, most comments concerned Natural Resources, Loss of Public Lands, Residential/Commercial Developments, and Proposals.

1.6.2. Allocation Proposals

TVA received comments that either confirmed or requested changes for use allocations regarding specific parcels of land around Watts Bar Reservoir. Requests to keep or change allocation to Zone 4 were most frequently made by individuals, stakeholder groups, and in a petition. Local city and county governments requested large nearby tracts of TVA land to support commercial, residential, or recreation development. The majority of the comments were concerned with the parcels consisting of the former CRBR site (1,223 acres) and the Lowe Branch site (1,182 acres) near Watts Bar Dam. Many respondents expressed either support or opposition to the development of the Lowe Branch area and the former breeder reactor site. Opponents expressed concern that development would reduce wildlife and outdoor recreation opportunities in the area. Proponents of development expressed the view that it would increase commerce and jobs for the area.

1.6.3. Issue and Resource Identification

TVA internal reviews of current and historical information, reservoir data collected, and public input were used to identify the following resources/issues for evaluation in this Land Plan. The effect of each alternative on these issues is evaluated:

Aesthetics and Visual Resources are those areas and parcels of TVA land that allows for distinct visual qualities.

Cultural Resources are archaeological and historic resources on or near Watts Bar Reservoir lands including sites listed on the National Register of Historic Places (NRHP). TVA will comply with the National Historic Preservation Act (NHPA).

Endangered and Threatened Species are populations of state-listed or federally listed or rare plants and animals known to exist in the vicinity of Watts Bar Reservoir including their

occurrence and habitats on TVA lands and waters. TVA will comply with the Endangered Species Act (ESA).

Terrestrial Ecology is the natural systems of plants and animals supporting the indigenous ecosystems and broad natural community types found adjacent to and on TVA Watts Bar Reservoir lands. Issues include the identification and protection of significant natural features, rare species habitat, important wildlife habitat, or locally uncommon natural community types. TVA will comply with EOs 13186 and 13112 on migratory birds and invasive species.

Wetlands are an important ecosystem for many types of plants and animals found on TVA land and along the Watts Bar Reservoir shoreline. TVA will comply with EO 11990 on wetlands and the Clean Water Act.

Floodplains are important to flood control and water quality issues and are productive natural areas. TVA will comply with EO 11988 on floodplains.

Recreation has a broad range of activities on the Watts Bar Reservoir. Recreation opportunities are an important resource for public use of Watts Bar Reservoir lands and waters.

Water Quality and Shoreline conditions are issues that affect the overall aquatic ecological conditions of Watts Bar Reservoir. Water quality includes activities causing shoreline erosion as well as pollution, litter, and debris control, and other activities.

Aquatic Ecology is the natural systems of plants and animals supporting the indigenous ecosystems and broad natural community types found in the waters of TVA Watts Bar Reservoir and its tributaries. Issues include the identification and protection of rare species' habitat, important aquatic habitat, or locally uncommon aquatic community types.

Socioeconomic issues include the impacts of the Land Plan on current population, labor force, employment statistics, income, and property values of the Watts Bar region. Also important are existing and potential industrial sites and commercial and residential development near the reservoir or on TVA lands. A subset of these issues is environmental justice, the potential for disproportionate impacts to minority and low-income communities.

Navigation of commercial and recreational watercraft is an important resource on Watts Bar Reservoir. Issues include recreational boat traffic as well as commercial navigation.

Prime Farmland is land with the best combination of characteristics to produce agricultural and silvicultural products. An important issue is the conversion of prime farmland to urban or industrial developments. TVA will comply with the Farmlands Protection Policy Act.

Land Use designation is the purpose of TVA land use planning on Watts Bar Reservoir. Issues include the importance of contiguous undeveloped shoreline, enforcement of TVA policies, loss of public lands, balance of land uses, providing adequate funds and personnel to enforce TVA policies and control of shoreline, and the use of land adjacent to TVA property.

Managed Areas are special and unique natural areas on or in the vicinity of Watts Bar Reservoir set aside for a particular management objective or lands that are known to

contain sensitive biological, cultural, or scenic resources. Typically, they are parks, preserves, refuges, recreation areas, or other protected areas.

Air Quality is an important resource for public health and welfare. An important issue is compliance with National Ambient Air Quality Standards, which establish safe concentration limits of air pollution.

1.7. Public Review Process

Both the May 2005 and August 2007 draft plans and DEISs were sent to interested federally recognized Indian tribes, government agencies, interested organizations, and members of the public. The notice of availability of the 2005 Plan and DEIS was published in the *Federal Register* on May 20, 2005, with a comment period closing on July 6, 2005. The notice of availability for the 2007 Plan and DEIS was published on August 10, 2007, with a comment period closing on September 23, 2007.

Comments on both draft plans and DEISs were provided by members of the public, local organizations, and interested government agencies. Approximately 85 people attended a public meeting on June 14, 2005, in Harriman, Tennessee for the 2005 Plan; and on August 21, 2007, at the same location 102 people attended a public meeting for the 2007 Plan. During the meetings, comments could be made in writing using comment cards or given to a court reporter. TVA also posted copies of the DEISs on its Internet Web site, where comments could be made electronically, and posted notices in 10 area newspapers similar to the scoping announcements. In addition, TVA accepted comments through surface mail or e-mail, by phone, and by facsimile. TVA also held briefings with community leaders and representatives of interest groups to share information and to receive their input.

Including form letters and petitions, TVA received a total of 186 sets of comments from individuals; federal, state, and local government agencies; and interested organizations on the 2005 Plan. TVA reviewed and prepared responses to all of these comments, in some cases the EIS was changed because of the information or issues presented. These comments and responses are part of the official record and available on request.

There were written and oral comments received for the 2007 Plan from 91 individuals, including 5 interested organizations, two local governments, and 12 federal, state, and local government agencies. TVA has reviewed and responded to these comments, in some cases the EIS was changed because of the information or issues presented (see Appendix F).

1.7.1. Public Comments

The majority of the public comments on the 2005 Plan focused on opposition to using public lands for private residential and commercial development and the associated environmental impacts such as the loss of recreation opportunities and terrestrial habitat that could occur. Many comments on the 2005 Plan raised questions and provided input on the identified environmental issues. These comments were primarily concerned with impacts to the environment such as socioeconomic concerns, recreation on Watts Bar Reservoir, impacts to wildlife, and water quality. Commenters also questioned the economic need of further use of public lands for development on Watts Bar given the success and future potential of current private developments. There were also many comments about TVA's management

of public lands, the planning for the management and use of public lands, and the potential results of TVA's management and planning. Commenters stated that selling public land is contrary to the expressed public opinion and contrary to past TVA decisions not to develop public land. They stated that TVA should continue to maintain and manage TVA public land on Watts Bar Reservoir for future public use.

More than half of the comments received had non-environmental themes such as alternative selection, land use plans and policy, the National Environmental Policy Act (NEPA) process, and trust in TVA. The character of these comments was very similar to those previously provided during scoping.

There was an apparent change in public attitude and opinion following the release of the 2006 TVA Land Policy. There continued to be comments opposing using public lands for private residential or commercial development, but not to the same degree as in responses to those alternatives provided on the 2005 Plan. There were general comments complementing TVA on the implementation of the 2006 Land Policy and TVA's management of public lands.

The largest grouping of public responses to the amended DEIS focused on the types of use allocation for specific parcels of TVA managed land, in particular the former CRBR site and Lowe Branch area. There were also many comments about the NEPA process and alternative selection, and stewardship of public lands. And there was interest in how TVA's land policy is applied and the management of various types of recreation on public lands.

The remainder of comments on the amended DEIS raised questions and provided comments on the identified environmental issues. Of these, the issue of greatest concern was water quality, especially about waste water discharges. Other issues mentioned with concerns about impacts to the environment were socioeconomic and environmental justice, terrestrial ecology, threatened and endangered species, forestry, aquatic ecology, and cultural resources.

1.7.2. Alternatives and Agency Response

Similar to the 2005 Plan stakeholder and special interest groups indicating an alternative preference favored the modified conservation and recreation alternative, primarily, because of the lesser impact on the environment. The public responses in support of some modified economic and recreation development (Modified Alternative B) of Watts Bar public lands described it as having a potentially positive impact to the area economy, land values, jobs, and taxes available for local government.

The Tennessee Historical Commission reminded TVA of its commitment to follow the 2004 programmatic agreement which stipulates a strategy of phased compliance with Section 106.

The Chickasaw Nation was unaware of any specific historic properties or traditional cultural, religious and/or sacred sites, but expected to be notified of further site specific activities that may have an impact of historic properties. They also expected any construction activities to cease in the event of inadvertent discoveries of human remains or funerary objects, according to all applicable state and federal laws.

Tennessee Department of Economic Development, Oak Ridge Chamber of Commerce and Oak Ridge Economic Partnership, support Modified Alternative B, which has a more balanced plan and provides for continued industrial development in the areas currently designated for industrial development. The City of Rockwood informed TVA of an interest in pursuing commercial recreation development opportunities on Parcel 218.

TDEC encouraged TVA to work with local parks and recreation agencies throughout the area to implement the plan. TDEC had a concern that the number of recreation user days per year reported in the amended DEIS may have skewed the quantitative results and consequently future planning for recreation, such as number of boat ramps, marinas, picnic areas, etc. See Appendix F, comment number 102, page 403.

TWRA and USEPA preferred the Modified Alternative C which provides the most overall protection for the environment. TWRA commented that the Modified Alternative C would expand dispersed recreational pursuits, such as wildlife and nature observation and hunting, and that if Modified Alternative B were chosen additional impacts to dispersed recreation at Lowe Branch could occur, as well as eliminate from consideration a request from TWRA for the transfer of land from TVA for a WMA. Additionally, this alternative would eventually eliminate the WMA agreement for the former CRBR Site. TWRA noted that if either Modified Alternative A or Modified Alternative B were chosen habitat for the state endangered Bachman's sparrow could be impacted.

Recognizing TVA's mandate to balance the environment with industrial and economic development, USEPA noted that TVA continues to prefer Modified Alternative B even though the "environmentally preferred" alternative is Modified Alternative C. USEPA further suggested a hybrid or blended alternative between Modified Alternatives B and C rather than using Modified Alternative B, and that development be limited to light industry that depends on water access. USEPA noted that TVA public lands along Watts Bar Reservoir serve to buffer the reservoir from ongoing private development and it is unclear why TVA public lands should be offered for private sale (other than revenue) since considerable private shorelands are already in private ownership.

USEPA commented that the amended DEIS would have been improved if the proposed Natural Resource Management Strategy that is to replace the IRM had been ready and commented that environmental justice need not be an issue for this proposed project since minorities account for only small part of the population. USEPA rated the amended DEIS as "EC-1" (Environmental Concerns, some additional information requested) and recommended lower impact mitigation methods for wetlands, timber harvesting, water quality, and siting marinas and barge terminals.

USFWS clarified its position on programmatic land plans and stated that it would not be able to concur with TVA's "not likely to adversely affect" determination under the Endangered Species Act, Section 7 without consultation. TVA initiated consultation and a Biological Assessment was submitted February 29, 2008, for review by the USFWS. TVA determined that the Land Plan preferred alternative would have "no effect" on all but one federally listed species or their habitats in the Watts Bar area. TVA also determined the proposed Land Plan preferred alternative was "not likely to adversely affect" the pink mucket, based on implementation of specific measures if the former CRBR site or other sites were developed. USFWS provided a Biological Opinion on May 2, 2008, which stated it does not typically concur with a "not likely to adversely affect determination" at the programmatic consultation level when such determination is based on a commitment to

consult on specific projects in the future when details become known. Rather a “likely to adversely affect” is the appropriate determination at the programmatic consultation level if there is a potential for future adverse impacts. However, after a review of this project and associated conservation measures, USFWS concurred that the proposed Land Plan preferred alternative is “not likely to adversely affect” the pink mucket. USFWS relayed that the requirements of Section 7 of the Endangered Species Act, as they apply to this programmatic review, have been fulfilled.

The Department of the Interior, East Tennessee Development District and USACE had no comments regarding environmental resources or issues, or no conflicts with plans or programs. USACE asked to be contacted should there be future development-related impacts subject to Section 404 and/or Section 10 of the Rivers and Harbors Act of 1899. USDOE commented that the current size of the USDOE Oak Ridge Reservation is more accurately described as having approximately 33,718 acres.

1.8. Necessary Federal Permits or Licenses

No federal permits are required to develop this Land Plan. Site-specific information on reservoir resources has been characterized in this Land Plan and potential impacts on these resources were considered in making land use allocation recommendations. Appropriate agencies regulating wetlands, endangered species, and historic resources have been consulted during this planning process. When specific actions, such as a construction of docks, buildings, roads or walking trails are proposed, additional environmental reviews for these actions would be undertaken.