

T E N N E S S E E V A L L E Y A U T H O R I T Y



Kingston Recovery Project Land Management Plan

Watts Bar Reservoir

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Kingston Recovery Project

Land Management Plan

Watts Bar Reservoir

Land and Shoreline Management

Prepared by

Tennessee Valley Authority
Natural Resource Management and Planning

Emory River Right Descending Bank

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ACRONYMS AND ABBREVIATIONS

CVLP	Comprehensive Valleywide Land Plan
EA	environmental assessment
KIF	Kingston Fossil Plant
NRP	Natural Resource Plan
RLMP	Reservoir Land Management Plan
TRM	Tennessee River Mile
TVA	Tennessee Valley Authority
TVA Board	TVA Board of Directors
Valley	Tennessee Valley region

CHAPTER 1. INTRODUCTION

1.1 Tennessee Valley Authority History

President Franklin Roosevelt needed creative solutions to lift the nation out of the depths of the Great Depression, and the Tennessee Valley Authority (TVA) is considered one of his most innovative initiatives. Roosevelt envisioned TVA as an agency different from any other. He asked Congress to create “a corporation clothed with the power of government but possessed of the flexibility and initiative of a private enterprise.” On May 18, 1933, Congress passed the Tennessee Valley Authority Act. A copy of the TVA Act is available at http://www.tva.com/abouttva/pdf/TVA_Act.pdf.

From the start, TVA established a unique approach to fulfilling its mission: Integrated Resource Management. Each issue TVA faced—whether it was power production, navigation, flood control, malaria prevention, reforestation, or erosion control—was studied in its broadest context. TVA weighed each issue relative to the others. From this beginning, TVA has held fast to its strategy of integrated solutions, even as the issues changed over the years. A short TVA history is available at <http://www.tva.com/abouttva/history.htm>.

1.2 Overview of TVA’s Vision and Environmental Policy

1.2.1 TVA’s Mission and Vision

TVA has a rich history of improving quality of life and economic prosperity for people and businesses in the TVA service area. Through the years, as times have changed, TVA has changed with them, updating and refining its focus to better serve its enduring mission in affordable electricity; economic and agricultural development; environmental stewardship; integrated river system management; and technological innovation.

While TVA’s mission has not changed, the environment in which TVA does business continues to evolve. Facing challenging economic conditions, tougher new environmental standards, the need to modernize its generating fleet and changing customer needs, TVA recognized a need to refine its strategic vision for the future.

In August 2010, the TVA Board of Directors (TVA Board) adopted a renewed vision that will help TVA lead the Tennessee Valley region (Valley) and the nation toward a cleaner and more secure energy future, relying more on nuclear power and energy efficiency and less on fossil power production.

TVA's renewed vision is to be one of the nation's leading providers of low-cost and cleaner energy by 2020. More specifically, TVA intends to be the nation's leader in improving air quality; the nation's leader in increased nuclear production; and the Southeast's leader in increased energy efficiency.

1.2.2 Environmental Policy

As stated in TVA's 2007 Strategic Plan (http://www.tva.com/stratplan/tva_strategic_plan.pdf), "TVA will be proactive in addressing environmental concerns, including those related to global climate change." About half of the identified strategic objectives and critical success factors in the plan relate directly to TVA's environmental activities and policy-making.

Following the release of the 2007 Strategic Plan, the TVA Board asked for the development of an integrated environmental policy to outline objectives and critical success factors across the multiple areas of TVA's activities. In 2008, the TVA Board approved the Environmental Policy, which provides guiding principles for reducing the environmental impacts of TVA operations while continuing to provide reliable and affordable power to the Valley. In 2010, a biennial review of the Environmental Policy was completed, which did not result in major changes or revisions. TVA's overarching Environmental Policy objective is to provide cleaner, reliable, and affordable energy; support sustainable economic growth in the Valley; and engage in proactive environmental stewardship in a balanced and ecologically sound manner. A copy of the Environmental Policy is available at <http://www.tva.com/environment/policy.htm>.

1.2.3 Land Policy

On behalf of the United States, TVA originally acquired approximately 1.3 million acres of land in the Valley. Creation of the TVA reservoir system inundated approximately 470,000 acres with water. TVA has transferred or sold approximately 508,000 acres, the majority of which was transferred to other federal and state agencies for public uses. TVA currently controls approximately 293,000 acres of reservoir lands, which continue to be managed pursuant to the TVA Act. As part of its management of these lands, TVA allocates them to various land use zones (see Section 3.1). These TVA-managed lands are frequently referred to as "TVA lands" in this document.

In 2006, TVA adopted a Land Policy to guide retention, disposal, and planning of real property. Accordingly, 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. Recognizing that

historical land transfers have contributed substantially to meeting multipurpose objectives, TVA maintains the policy of retaining in public ownership the reservoir lands under its control except in those rare instances where the benefits to the public will be so significant that transferring lands to private ownership or another public entity is justified. The Land Policy is available at http://www.tva.gov/river/landandshore/land_policy.htm.

1.3 The Natural Resource Plan

In 2011, TVA adopted a Natural Resource Plan (NRP) (TVA 2011) that strategically guides the management of both renewable and nonrenewable resources, underscoring the importance of protecting those resources that will be lost forever if they are not actively protected or improved today. TVA is one piece of the solution and recognizes the need for a coordinated and collaborative effort to meet the near- and long-term resource needs. As such, the NRP is designed to:

- Integrate the objectives of six resource areas (biological, cultural, recreation, water, public engagement and reservoir lands planning)
- Provide optimum public use benefit
- Balance competing and sometimes conflicting resource uses

These competing interests, coupled with today's environmental awareness and focus on preserving nonrenewable resources, underscore the necessity for a consistent approach to the management of TVA lands. The NRP represents TVA's high-level strategy for managing its natural resources in the near and long term. Detailed implementation plans, such as this reservoir land management plan (RLMP), are being developed based on the NRP to drive specific implementation efforts. The NRP is available at <http://www.tva.gov/environment/reports/nrp/index.htm>.

1.4 Purpose of Reservoir Land Planning

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 Valley for future generations through leadership in clean energy innovation and environmental management. In managing its public lands and resources, TVA seeks to provide efficient resource stewardship that is responsive to stakeholder interests.

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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.

As part of the NRP, TVA developed a Comprehensive Valleywide Land Plan (CVLP). The CVLP guides resource management and administration decisions on the approximately 293,000 acres of TVA lands around 46 reservoirs. It identifies the most suitable uses for the reservoir land under TVA's control, identifying areas for project operations, sensitive resource management, natural resource conservation, industrial/commercial development, developed recreation, and shoreline access. The objectives of the CVLP are designed to implement TVA's mission of serving the Valley through energy, environment, and economic development. Under the CVLP, TVA will develop and update RLMPs, such as this plan, for a portion of a reservoir, an entire reservoir, or a group of reservoirs. RLMPs are consistent with TVA's policies and programs discussed within this chapter.

TVA's reservoir land planning efforts exclude the agency's power plant properties. These properties include active and former fossil and nuclear properties, Raccoon Mountain Pumped Storage Plant, and Buffalo Mountain Wind Power Project site. These properties will remain power assets, and primary management will remain as power generation.

CHAPTER 2. OVERVIEW

2.1 Local History

Watts Bar Reservoir is a 69-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. 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. At full pool, the reservoir shoreline length is 721 miles and the surface area is about 39,000 acres (TVA 2009).

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, and for various commercial, industrial, residential, and recreational uses have resulted in a balance of about 16,220 acres of TVA land (TVA 2009).

On December 22, 2008, a dike failed at Kingston Fossil Plant (KIF), releasing about 5.4 million cubic yards of coal ash that covered about 300 acres of TVA and private land, including two embayments on Watts Bar Reservoir in Roane County, Tennessee (TVA 2011b). On November 19, 2009, the TVA Board approved the Watts Bar RLMP, which excluded the approximate 184 acres affected by the ash spill.

2.2 The Project

In January 2009, TVA began developing a recovery plan that would address remediation of the area affected by the dike failure and subsequent ash spill. TVA has purchased private property surrounding the KIF ash spill site based on direct impacts from the spill or remediation as part of its continuing efforts to address the impacts of the spill and cleanup.

Prior to the ash spill, softball and soccer fields on TVA's KIF property were available for use by the public. The adjacent ash and water treatment ponds were also used by the public as a wildlife observation area, particularly for viewing shorebirds during the spring and late summer/early fall. These areas have been closed to the public since the ash spill; the ball field area now serves to support the ash recovery effort (TVA 2011b).

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In 2011, TVA completed an environmental assessment (EA) that evaluated the potential impacts for a comprehensive recreation plan which includes the development of three recreation areas on the property surrounding KIF that it acquired following the 2008 ash spill event. In addition, the EA evaluated the allocation of the reservoir property near the recreation areas that was not considered in the 2009 Watts Bar RLMP. This RLMP includes the 143.6 acres of reservoir property located along the Emory River right descending bank that was not considered in the 2009 Watts Bar RLMP. The 143.6 acres are reservoir shorelands that front adjacent property that TVA acquired in the vicinity of KIF after the ash spill, and the allocations of these shorelands either reflect and coordinate with the uses proposed for the adjacent acquired property or no change from the 2009 planning effort of the Watts Bar Reservoir Land Management Plan.

TVA has acquired or is in the process of acquiring additional property along the left descending bank of the Emory River to further the Kingston restoration efforts. The development of a RLMP for this property and the additional 40.6 acres excluded from the Watts Bar RLMP will be driven by business or resource needs.

CHAPTER 3. LAND PLANNING PROCESS

3.1 Process for Planning Land

The reservoir land management planning process involves allocation of TVA fee-owned land to seven defined land use zones. The term “land use zone” refers to a descriptive set of criteria given to distinct areas of land based on location, features, and characteristics. The land use zone definitions listed in Table 3–1 are identical to those listed in the NRP. The definition of a land use zone provides a clear statement of how TVA will manage public land, and allocation of a parcel to a particular land use zone identifies that land for specific uses. Implementation of an RLMP minimizes conflicting land uses and makes it easier to handle requests for use of public land.

This RLMP was developed by a team of land managers and technical experts from TVA, knowledgeable about the reservoir and its resources. The planning team made land use decisions by integrating public needs, environmental conditions, economic benefits, state and federal policies, and the original congressional intent of the Watts Bar Reservoir project. The process includes information from resource data, computer analysis, the public, other agencies, and knowledgeable TVA staff. This RLMP is consistent with the strategic direction of the NRP and meets the objectives of the CVLP. Furthermore, the categorization and management of TVA-owned shoreline access land along Kingston Recovery Project Land Management Plan tiers from the *Shoreline Management Initiative Environmental Impact Statement* (TVA 1999).

Table 3-1. Land Use Zone Definitions

Zone	Definition
Zone 1 Non-TVA Shoreland	<p>Shoreland that TVA does not own in fee. This land may be privately owned or owned by a governmental entity other than TVA. Uses of this non-TVA land may include residential, industrial, commercial, and/or agricultural. In many instances, TVA may have purchased the right to flood and/or limit structures on this non-TVA land (i.e., flowage easement). TVA’s permitting authority under Section 26a of the TVA Act applies to construction of structures on non-TVA shoreland.</p> <p>Non-TVA shoreland allocations are based on deeded rights and, therefore, will not change as a result of the lands planning process. This category is provided to assist in comprehensive evaluation of potential environmental impacts of TVA’s allocation decision.</p>

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Zone	Definition
<p>Zone 2 Project Operations</p>	<p>Land currently used, or planned for future use, for TVA operations and public works projects, including:</p> <ul style="list-style-type: none"> • Land adjacent to established navigation operations — Locks, lock operations and maintenance facilities, and the navigation work boat dock and bases. • Land used for TVA power projects operations — Generation facilities, switchyards, and transmission facilities and rights-of-way. • Dam reservation land — Areas acquired and managed for the primary purpose of supporting the operation and maintenance of TVA dams and associated infrastructure; secondary uses may also include developed and dispersed recreation, maintenance facilities, miscellaneous TVA field offices, research areas, and visitor centers. • Navigation safety harbors/landings — Areas used for tying off commercial barge tows and recreational boats during adverse weather conditions or equipment malfunctions. • Navigation dayboards and beacons — Areas with structures placed on the shoreline to facilitate navigation. • Public works projects — Includes rights-of-way for public utility infrastructure, such as sewer lines, water lines, transmission lines, and major highway projects.
<p>Zone 3 Sensitive Resource Management</p>	<p>Land managed for protection and enhancement of sensitive resources. Sensitive resources, as defined by TVA, include resources protected by state or federal law or executive order and other land features/natural resources TVA considers important to the area viewscape or natural environment.</p> <p>Recreational natural resource activities, such as hunting, wildlife observation, and camping on undeveloped sites, may occur in this zone, but the overriding focus is protecting and enhancing the sensitive resource the site supports.</p> <p>Areas included are:</p> <ul style="list-style-type: none"> • TVA-designated sites with potentially significant archaeological resources. • TVA public land with sites/structures listed in or eligible for listing in the National Register of Historic Places. • Wetlands — Aquatic bed, emergent, forested, and scrub-shrub wetlands as defined by TVA. • TVA public land under easement, lease, or license to other agencies/individuals for resource protection purposes. • TVA public land fronting land owned by other agencies/individuals for resource protection purposes. • Habitat protection areas — These TVA natural areas are managed to protect populations of species identified as threatened or endangered by the U.S. Fish and Wildlife Service, state-listed species, and any unusual or exemplary biological communities/geological features. • Ecological study areas — These TVA natural areas are designated as suitable for ecological research and environmental education by a recognized authority or agency. They typically contain plant or animal populations of scientific interest or are of interest to an educational institution that would utilize the area. • Small wild areas — These TVA natural areas are managed by TVA or in cooperation with other public agencies or private conservation organizations to protect exceptional natural, scenic, or aesthetic qualities that can also support dispersed, low-impact types of outdoor recreation.

Zone	Definition
	<ul style="list-style-type: none"> • River corridor with sensitive resources present — A river corridor is a segment of a river and the adjacent land along the banks. River corridors often consist of a linear green space of TVA land serving as a buffer to tributary rivers entering a reservoir. These areas will be included in Zone 3 when identified sensitive resources are present. • Significant scenic areas — Areas designated for visual protection because of their unique vistas or particularly scenic qualities. • Champion tree site — Areas designated by TVA as sites that contain the largest known individual tree of its species in that state. The state forestry agency “Champion Tree Program” designates the tree, while TVA designates the area of the sites for those located on TVA public land. • Other sensitive ecological areas — Examples of these areas include heron rookeries, uncommon plant and animal communities, and unique cave or karst formations.
Zone 4 Natural Resource Conservation	<p>Land managed for the enhancement of natural resources for human use and appreciation. Management of resources is the primary focus of this zone. Appropriate activities in this zone include hunting, timber management to promote forest health, wildlife observation, and camping on undeveloped sites. Areas included are:</p> <ul style="list-style-type: none"> • TVA public land managed for wildlife or forest management projects. • TVA public land under easement, lease, or license to other agencies for wildlife or forest management purposes. • TVA public land fronting land owned by other agencies for wildlife or forest management purposes. • Dispersed recreation areas maintained for passive, dispersed recreation activities, such as hunting, hiking, bird watching, photography, primitive camping, bank fishing, and picnicking. • Shoreline conservation areas — Narrow riparian strips of vegetation between the water’s edge and TVA’s back-lying property that are managed for wildlife, water quality, or visual qualities. • Wildlife observation areas — TVA natural areas with unique concentrations of easily observed wildlife that are managed as public wildlife observation areas. • River corridor without sensitive resources present — A river corridor is a linear green space along both stream banks of selected tributaries entering a reservoir managed for light boat access at specific sites, riverside trails, and interpretive activities. River corridors will be included in Zone 4 unless sensitive resources are present (see Zone 3). • Islands without sensitive resources or existing development.
Zone 5 Industrial	<p>Land currently used, or planned for future use, for economic development, including businesses in distribution/processing/assembly and manufacturing. Preference will be given for businesses requiring water access. There are two primary types of uses for TVA land allocated for Industrial: (1) access for water supply or structures associated with navigation such as barge terminals, mooring cells, etc., or (2) land-based development potential.</p> <p>Areas included are:</p> <ul style="list-style-type: none"> • TVA public land under easement, lease, or license to other agencies/individuals/ entities for industrial purposes. • TVA public land fronting land owned by other agencies/individuals/entities for industrial purposes.

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Zone	Definition
	<p>In some cases, TVA land allocated to industrial use would be declared surplus and sold at public auction.</p> <p>Types of development that can occur on this land are:</p> <ul style="list-style-type: none"> • Industry — Manufacturing, fabrication, and distribution/processing/assembly involving chemical, electronics, metalworking, plastics, telecommunications, transportation, and other industries. Industry does not include retail or service-based businesses. • Industrial access — Access to the waterfront by back-lying property owners across TVA property for water intakes, wastewater discharge, or conveyance of commodities (i.e., pipelines, rail, or road). Barge terminals are associated with industrial access corridors. • Barge terminal sites — Public or private facilities used for the transfer, loading, and unloading of commodities between barges and trucks, trains, storage areas, or industrial plants. • Fleeting areas — Sites used by the towing industry to switch barges between tows or barge terminals that have both offshore and onshore facilities. • Minor commercial landing — A temporary or intermittent activity that takes place without permanent improvements to the property. These sites can be used for transferring pulpwood, sand, gravel, and other natural resource commodities between barges and trucks.
<p>Zone 6 Recreation</p>	<p>Land currently used, or planned for future use, for concentrated, active recreational activities that require capital improvement and maintenance of developed infrastructure, including:</p> <ul style="list-style-type: none"> • TVA public land developed for recreational purposes, such as campgrounds, day use areas, etc. • TVA public land under easement, lease, or license to other agencies/individuals/entities for developed recreational purposes. • TVA public land fronting land owned by other agencies/individuals/entities for developed recreational purposes. <p>Residential use, long-term accommodations, and/or individually owned units are not permitted on land allocated for developed recreation. Types of development that can occur on this land are:</p> <ul style="list-style-type: none"> • Public recreation — Recreation amenities developed and owned by a public agency that are open to the public. Public recreation areas may have varying levels of development, ranging from a water access site (e.g., launching ramp) to a marina facility. Facilities at public recreation areas could include playgrounds/play structures, picnic facilities, tennis courts, horseshoe areas, play courts, recreation centers, trails, greenways, natural areas, amphitheaters, food concessions (vending, snack bar), access to water for fishing and boating, swimming areas and swimming pools, launching ramps, courtesy piers, canoe access, marina facilities owned by the public entity, parking, and campgrounds. Cabins or other overnight accommodations (other than campgrounds) are only permitted if the public recreation area is operated by a state or state agency as a component of a state park system. • Public recreation areas and facilities are typically owned and operated by the federal, state, county, or local government. However, private entities may operate recreation facilities on public recreation land as concessionaires under agreement with the public entity controlling the property. The use of the facilities may be offered free or for a fee.

Zone	Definition
	<p>Time-forward, public-private partnerships where facilities are owned by private investors will not be approved on public recreation land. All structures and facilities should be owned by the public entity.</p> <ul style="list-style-type: none"> • Commercial recreation — Recreation amenities that are provided for a fee to the public intending to produce a profit for the private owner/operator. These primarily water-based facilities typically include marinas and affiliated support facilities such as stores, restaurants, campgrounds, and cabins and lodges. Where applicable, TVA will require appropriate compensation for the commercial use of the property.
Zone 7 Shoreline Access	<p>TVA-owned land where Section 26a applications and other land use approvals for residential shoreline alterations are considered in accordance with TVA's Shoreline Management Policy. Types of development/management that may be permitted on this land are:</p> <ul style="list-style-type: none"> • Residential water use facilities, e.g., docks, piers, launching ramps/driveways, marine railways, boathouses, enclosed storage space, and nonpotable water intakes. • Shoreline access corridors, e.g., pathways, wooden steps, walkways, or mulched paths that can include portable picnic tables and utility lines. • Shoreline stabilization, e.g., bioengineering, riprap, gabions, and retaining walls. • Shoreline vegetation management.

Prior to allocating parcels, the TVA planning team reviewed the characteristics of each parcel (i.e., location and existing conditions). TVA also reviewed deeds of selected tracts previously sold to private entities to identify existing shoreline access rights. In addition, the planning team honored all existing commitments—that is, existing leases, licenses, and easements. The remaining parcels were allocated based on reservoir planning objectives and public input. Decisions were made by consensus among the TVA planning team. During the allocation process, the planning team allocated the reservoir land to one of seven planning zones using the zone definitions listed above.

Land currently committed to a specific use was allocated to a zone compatible with that use unless there was an overriding need to change the use. Some committed land uses are determined by the covenants and provisions of easements, leases, licenses, and sale and transfer agreements. Committed lands include the following: properties where TVA has granted landrights (easements, leases, etc.) for specific uses, properties where TVA has previously identified resources in need of protection, Project Operations lands (transmission lines, dam reservations, public infrastructure, etc.), and lands fronting wildlife management areas. Approximately 131.7 acres (92 percent) of the TVA land for this RLMP are committed.

Approximately 11.9 acres (8 percent) of the TVA land for this RLMP are uncommitted. Technical specialists collected field data on many uncommitted parcels to identify areas containing sensitive resources. Representatives from various TVA organizations met to allocate these uncommitted lands into the seven planning zones. The location of known and potentially sensitive resources was used in determining the capability and suitability of potential uses for each parcel of land.

3.2 Kingston Recovery Project Land Planning Goals and Objectives

Goal 1: Develop public recreation areas to help restore and enhance the community that was impacted by the 2008 KIF ash spill event.

Goal 2: Allocate TVA reservoir land to support the development of public recreation areas.

Goal 3: Allocate TVA reservoir land to support ongoing ash recovery activities, provide a buffer for KIF, and other KIF related operations.

Goal 4: Allocate TVA reservoir lands to support natural resource management, where appropriate.

3.3 Parcel Allocations

TVA's land planning process (Section 3.1) along with the goals and objectives specific to the Kingston Recovery Project (Section 3.2) were used to allocate public land to one of the seven planning zones as indicated in Table 3–2. TVA has allocated 121.2 acres (84.4 percent) of the land to Project Operations, 11.9 acres (8.3 percent) to Natural Resource Conservation, 2.8 acres (1.9 percent) to Developed Recreation, and 7.7 acres (5.4 percent) to Shoreline Access for a total of 143.6 acres.

Table 3-2. Land Use Allocations for Kingston Recovery Project

Parcel	Proposed Land Use Zone	Acres
12–45	Zone 6 – Developed Recreation	1.6
12–51	Zone 6 – Developed Recreation	1.2
184	Zone 2 – Project Operations	21.3
184a	Zone 7 – Shoreline Access	7.7
185	Zone 2 – Project Operations	4.1
186	Zone 2 – Project Operations	13.7
187	Zone 2 – Project Operations	56.8
188	Zone 2 – Project Operations	25.3
189a*	Zone 4 – Natural Resource Conservation	11.9
Total Acres		143.6

* denotes TVA lands that are considered uncommitted

The NRP provided an allocation range for each land use zone via the CVLP along with a baseline of land use zone allocations for each of the 47 reservoirs managed by TVA. Table 3–3 compares these NRP estimates with the results of this land planning effort. The “Watts Bar Reservoir Allocation” figures (Table 3–3) include the property shown in Table 3–2 and a portion of the property described in the Watts Bar RLMP. The Watts Bar RLMP included lands used solely for TVA power plant operations. With approval of the NRP, the scope of reservoir lands planning has been limited to TVA reservoir properties. **Therefore, approximately 2,012 acres of power plant properties were excluded when determining the percentages in Table 3–3.**

Table 3-3. Watts Bar Reservoir and Natural Resource Plan Comparison

Allocation Designation		Watts Bar Reservoir Allocation	NRP Baseline	CVLP Range (Percent)
Zone 2	Project Operations*	13%	13%	5% to 7%
Zone 3	Sensitive Resource Management	28%	28%	16% to 18%
Zone 4	Natural Resource Conservation	28%	28%	58% to 65%
Zone 5	Industrial	3%	3%	1% to 2%
Zone 6	Developed Recreation	12%	12%	8% to 10%
Zone 7	Shoreline Access	17%	17%	5%

*These figures represent TVA reservoir properties only.

The allocations for the Kingston Recovery Project result in only very minor changes in the percentage of overall lands allocated to each land use zone for Watts Bar Reservoir as reflected in the 2009 plan. In conclusion, the additional analysis conducted during the development of the Kingston Recovery Project Land Management Plan supports the CVLP.

3.4 Property Administration

As administrators of public land, TVA uses the RLMP, along with TVA policies and guidelines, to manage resources and to respond to requests for the use of TVA land. All inquiries about or requests for the use of TVA land should be made to the TVA Environmental Information Center at 800-882-5263 between 8 a.m. and 6 p.m. Eastern time Monday through Friday.

Pursuant to the TVA Land Policy, TVA would consider changing a land use designation outside of the normal planning process only for the purpose of water access for industrial or commercial recreational operations on privately owned back-lying land or to implement TVA’s SMP.

Additionally, there are a small number of TVA parcels in the Valley that have deeded access rights for shoreline access that are currently utilized for other uses such as commercial recreation and industrial. Should the private back-lying land become residential, a request for a

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change of allocation of the parcel to Zone 7 (Shoreline Access) would be subject, with the appropriate environmental review, to action by the TVA Board or its designee or to Board–approved policy.

Consistent with the TVA Land Policy, those parcels or portions of parcels that have become fragmented from the reservoir may be declared surplus and sold at public auction. Public works/utility projects, such as easements for pipelines, power or communication wires, roads, or other public infrastructure, proposed on TVA land that do not affect the zoned land use or sensitive resources would not require an allocation change as long as such projects would be compatible with the use of the allocated zone. Proposed public works/utility projects would be subject to a project–specific environmental review. Any other requests involving a departure from the planned uses would require appropriate approval. Proposals consistent with TVA’s policies and the allocated use, and otherwise acceptable to TVA, will be reviewed in accordance with the National Environmental Policy Act (NEPA) and must conform to the requirements of other applicable environmental regulations and other legal authorities.

CHAPTER 4. PARCEL DESCRIPTIONS

Note: Parcel descriptions have the total acreage listed above the mean summer pool elevation.

Parcel 12–45 – (1.6 acres)

Zone 6, Developed Recreation

This parcel is located on the right bank of Emory River mile 2.5. It fronts land transferred to the State of Tennessee, TVA tract number XTWBR–45. This parcel is encumbered with certain easement rights as well as a license agreement with Tennessee Wildlife Resources Agency for public recreation purposes, specifically for a boat launching ramp. This parcel would continue to be managed in recognition of the existing contractual agreements with the State of Tennessee for public recreation. Requests for private water–use facilities will not be considered.

Parcel 12–51 – (1.2 acres)

Zone 6, Developed Recreation

This parcel is located on the right bank of Emory River mile 2.3. It fronts land transferred to the State of Tennessee, TVA tract number XTWBR–51. This parcel is encumbered with certain easement rights as well as a license agreement with Tennessee Wildlife Resources Agency for public recreation purposes, specifically for a boat launching ramp. A small gravel area is also located on this parcel. This parcel would continue to be managed in recognition of the existing contractual agreements with the State of Tennessee for public recreation. Requests for private water–use facilities will not be considered.

Parcel 184 – (21.3 acres)

Zone 2, Project Operations

This parcel is located on the right bank of Emory River mile 2.6 to 3.6 and adjacent to Lake Shore subdivision. This parcel adjoins property that TVA has transferred to Tennessee Wildlife Resources Agency and two TVA parcels that have been allocated to Natural Resource Conservation.

The primary function of this parcel is to support the ongoing recovery efforts and provide for future operational use of KIF. TVA is planning to enhance and restore three recreation areas located on Parcels 184, 187, and 188. Specifically on Parcel 184, the recreation area would include the following components: outdoor classroom; walking trail; fishing piers; open green

space; and parking. Disturbed areas would be revegetated with native plant species, or nonnative noninvasive species. Requests for private water–use facilities will not be considered.

Parcel 184a – (7.7 acres)

Zone 7, Shoreline Access

This parcel is located on the right bank of Emory River mile 2.6 to 3.6 and contains two segments of land. Formerly, this parcel was composed of the entire area fronting Lakeshore Subdivision. TVA purchased properties affected by the KIF ash spill event. The areas purchased by TVA are no longer considered as Zone 7 properties and are not part of this parcel. Requests for water—use facilities will be considered on the remainder of this parcel.

Parcel 185 – (4.1 acres)

Zone 2, Project Operations

This parcel is located on the right bank of Emory River mile 3.1 at Swan Pond Circle Road. This parcel contains in two disjointed segments of land. Segment A lies along Swan Pond Circle Road and a small embayment. Segment B is situated adjacent to Swan Pond Circle Road and the main–stem reservoir shoreline. Segment A is a low–lying narrow riparian zone with a mix of hardwoods such as sycamore, green ash, black willow, river birch, and red maple. Much of this parcel is maintained fescue grass with young trees scattered throughout. There is an encroachment of unauthorized mowing occurring on Segment A. Segment B contains a mixture of “pole–sized” hardwood and pine trees such as Virginia pine, yellow poplar, black cherry, sweetgum, and red maple. The understory in this area is dominated by invasive plant species including multi–flora rose, privet, and honeysuckle. Segment B also contains a maintained pathway from Swan Pond Circle Road to the shoreline. Overall, this parcel provides habitat for a relatively limited variety of wildlife species due to the encroachment and the level of invasive plant species present.

The primary function of this parcel is to support the ongoing recovery efforts and provide for future operational use of KIF. Requests for private water–use facilities will not be considered.

Parcel 186– (13.7 acres)

Zone 2, Project Operations

This parcel is located on the right bank of Emory River mile 3.2 within the Swan Pond Circle Road embayment. The shoreline of this parcel is comprised of a multi-age palustrine forested wetland. The wetland is underlain by Atkins Very Fine Loam soil that is located on Roane County's hydric soils list. The dominate tree species include sweetgum, red maple, American elm, black willow, and willow oak. The supporting hydrology is from back flooding from the reservoir, ponding precipitation, and beaver impoundments. This wetland provides many water quality protection and enhancement functions including filtering and sequestration of sediments and nutrients while increasing local floodwater retention capacity.

The wetland present on this parcel also provides high value wildlife habitat. This area has habitat for a host of wildlife species from large mammals to amphibians. White-tailed deer, American toads, and Cope's gray treefrog are examples of the wide range of wildlife present. In addition, this area is extensively used by a variety of waterfowl, resident, and neo-tropical migrant bird species. Wood ducks, mallards, herons, pileated woodpeckers, yellow-rumped warblers, and prothonotary warblers have been observed in this area.

The primary function of this tract is to support the ongoing recovery efforts and provide for future operational use of KIF. TVA will strive to balance the competing demands of the recovery efforts while continuing to manage the wetland resources present in this area. Requests for private water-use facilities will not be considered.

Parcel 187– (56.8 acres)

Zone 2, Project Operations

This parcel is located on the right bank of Emory River mile 2.5. This parcel has segments adjoining a large unnamed tributary embayment, Swan Pond Creek embayment, and the ash disposal area at KIF. The largest segment of the parcel is situated around the large embayment. This segment is a relatively flat, low-lying riparian zone with mid-age sycamore, green ash, and silver maple trees. There is also a considerable amount of fescue grass and some scattered exotic kudzu present. The segment of the parcel that extends into the main reservoir is comprised of bottomland hardwoods such as silver maple, sycamore, green ash, and sweetgum trees. A scrub-shrub and emergent wetland fringe is present along the shallower shoreline areas. The third segment lies near the ash disposal area. This segment is

a steep predominately north facing slope. The vegetation present is mostly old age upland hardwoods comprised of various oak, hickory, white ash, black gum, yellow poplar, black cherry, red maple, basswood, American beech, yellow buckeye, and flowering dogwood trees.

The adjacent land use of this parcel includes forestland, rural residential, and agricultural with KIF nearby. Upland and riparian/wetland wildlife species, similar to those described under Parcel 186, are found in this area. Public use of this parcel is comprised mostly of bank fishing.

The primary function of this tract is to support the ongoing recovery efforts and provide for future operational use of KIF. TVA is planning to enhance and restore three recreation areas located on Parcels 184, 187, and 188. Specifically on Parcel 187, the recreation area would include the following components: access road and parking area; natural turf sports fields; and some vegetation around the perimeter of the sports field area. TVA would revegetate disturbed areas with native plant species, or nonnative noninvasive species. TVA is planning ultimately to entrust the land management responsibilities for the ball field area to a public entity (preferably Roane County) via a contractual agreement. If a contractual agreement cannot be reached, TVA would not likely develop the proposed recreation concept for this parcel. Requests for private water-use facilities will not be considered.

Parcel 188– (25.3 acres)

Zone 2, Project Operations

This parcel is located on the right descending bank of Emory River Mile 3.2. This parcel contains a wetland similar to that described under Parcel 186. However, the forested component of this wetland is somewhat younger in age. The dominant tree species present include red maple, black willow, American elm, and sweetgum. There is also a significant amount of buttonbush and silky dogwood present. The emergent wetland portions have a high diversity of obligate wetland grasses, rushes, sedges, smartweeds, jewelweed, and marsh mallow. The hydric soils are mostly super saturated with numerous vernal pools and depression type situations. The wetland provides habitat to various amphibian species.

The primary function of this tract is to support the ongoing recovery efforts and provide for future operational use of KIF. TVA is planning to enhance and restore three recreation areas located on Parcels 184, 187, and 188. Specifically on Parcel 188, the recreation area would be mainly green space with some planned observation areas, trails, interpretive signage, and a small parking area. TVA is also planning to restore wetland areas on the property, and anticipated

land uses would include bird/wildlife watching and wetland management. TVA will strive to balance the competing demands of the recovery efforts while continuing to manage the wetland resources present in this area. Requests for private water–use facilities will not be considered.

Parcel 189a– (11.9 acres)

Zone 4, Natural Resource Conservation

This parcel is located on the right descending bank of Emory River Mile 2.0 to 2.3. This parcel is comprised of a peninsula and small islands adjacent to the KIF ash disposal area.

The peninsula was formerly planted with loblolly pine, and many of the trees were killed by the southern pine beetle outbreak in the 1990's and 2000's. These impacted areas are regenerating to typical early succession bottomland hardwoods. In addition, there are scattered scrub–shrub and emergent fringe wetlands along the shoreline. However, the northern end of the peninsula's shoreline is eroding.

The small islands support young bottomland hardwoods with river alder dominated fringe shrub wetlands around them. Wetland wildlife and wading birds such as great blue herons, green herons, black–crowned night herons, cattle egret, and osprey are present. Due to access limitations, public use of this parcel appears limited to occasional duck hunting. Requests for private water–use facilities will not be considered.

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CHAPTER 5. PREPARERS

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Additional preparers listed in the *Kingston Fossil Plant Ash Recovery – Proposed Recreation Areas Final Environmental Assessment*.

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CHAPTER 6. LITERATURE CITED

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- . 2009. *Watts Bar Reservoir Land Management Plan Final Environmental Impact Statement*.
- . 2011a. *Natural Resource Plan and associated Natural Resource Plan Final Environmental Impact Statement, Volumes 1 and 2*.
- . 2011b. *Kingston Fossil Plant Ash Recovery – Proposed Recreation Areas Final Environmental Assessment*.

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GLOSSARY

embayment – A bay or arm of the reservoir.

emergent wetland – Wetlands dominated by erect, rooted herbaceous plants, such as cattails and bulrushes.

palustrine wetland – Relating to a system of inland, nontidal wetlands characterized by the presence of trees, shrubs, and emergent vegetation. Palustrine wetlands range from permanent saturated or flooded land to land that is wet only seasonally.

riparian – The communities of plants and animals that occur within the influence of a stream, river, or body of water.

scrub–shrub – Woody vegetation less than about 20 feet tall. Species include true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions.

shoreline – The line where the water of a TVA reservoir meets the shore when the water level is at the mean summer pool elevation.

summer pool elevation – The normal upper level to which the reservoirs may be filled. Where storage space is available above this level, additional filling may be made as needed for flood control.

upland – The higher parts of a region, not closely associated with streams or lakes.

wetlands – As defined in *TVA Environmental Review Procedures*, “Wetlands are those areas inundated by surface or groundwater with a frequency sufficient to support and under normal circumstances do or would support a prevalence of vegetation or aquatic life that requires saturated or seasonably saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas, such as sloughs, potholes, wet meadows, mud flats, and natural ponds.