

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



Multiple Reservoir Land Management Plans

DRAFT ENVIRONMENTAL IMPACT STATEMENT

Volume III
Fort Loudoun Reservoir

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FORT LOUDOUN RESERVOIR

Draft Reservoir Land Management Plan

VOLUME III

MULTIPLE RESERVOIR LAND MANAGEMENT PLANS DRAFT ENVIRONMENTAL IMPACT STATEMENT

Prepared by
Tennessee Valley Authority

December 2016

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ACRONYMS AND ABBREVIATIONS

§	Section
APE	Area of Potential Effect
CFR	Code of Federal Regulations
CVLP	Comprehensive Valleywide Land Plan
dBA	A-weighted Decibel
EIS	Environmental Impact Statement
EO	Executive Order
msl	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRI	Nationwide Rivers Inventory
NRP	Natural Resource Plan
PCB	Polychlorinated Biphenyl
PM_{2.5}	Particulate Matter particles less than 2.5 micrometers in aerodynamic diameter
RFAI	Reservoir Fish Assemblage Index
RLMP	Reservoir Land Management Plan
RVSMMP	Reservoir Vital Signs Monitoring Program
SMI	Shoreline Management Initiative
SHPO	State Historic Preservation Office
SMP	Shoreline Management Policy
SR	Tennessee State Route
TMDL	Total Maximum Daily Load
TRM	Tennessee River Mile
TVA	Tennessee Valley Authority
TWRA	Tennessee Wildlife Resources Agency
U.S.	United States
USDA	U.S. Department of Agriculture
USDOI	U.S. Department of the Interior
USGS	U.S. Geologic Survey

CHAPTER 1. INTRODUCTION

The draft Fort Loudoun Reservoir Land Management Plan (RLMP) is a study of the Tennessee Valley Authority (TVA)-managed public land surrounding Fort Loudoun Reservoir. It is one of eight draft RLMPs considered under Alternative B of this Environmental Impact Statement (EIS). The EIS Volume I contains information on the scoping process, allocation process, alternatives, comparison of the alternatives, and analysis of impacts. In addition, the EIS contains a summary, an index, and appendices.

Volume III of the EIS addresses TVA's draft RLMP for Fort Loudoun Reservoir. This Volume provides background information about TVA land management throughout its history and specifically TVA management of public land surrounding Fort Loudoun Reservoir. It explains the purpose of the draft RLMP and describes the process used in its development. The draft RLMP includes the planning process, which lists the objectives around which the RLMP was developed and a summary of the allocation process. The Fort Loudoun Reservoir Regional Overview (Chapter 2) describes the natural and social development of the reservoir and the surrounding area. The Parcel Descriptions (Chapter 4) include total acreage and parcel descriptions documenting proposed land management allocations. The allocation map is included as Appendix A of this draft RLMP.

Once TVA completes its Multiple RLMP EIS, this Volume will serve as the consolidated planning document addressing management of TVA reservoir lands on Fort Loudoun Reservoir and will be available to TVA staff and the public.

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 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 (TVA Act). A link to the TVA Act is available at <https://www.tva.com/About-TVA/Our-History>.

From the start, TVA established a unique problem-solving 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 Mission and Environmental Policy

1.2.1 TVA's Mission

TVA has a rich history of improving quality of life and economic prosperity for people and businesses in the TVA service area. TVA was created by Congress in 1933 and charged with a unique mission—to improve the quality of life in the Valley through the integrated management of the region's resources. For more than eight decades, we have worked tirelessly to carry out that mission, and we are working just as hard to make life better for the nine million people who live in the Valley today. We serve the people of the Tennessee Valley by focusing on three key areas: energy, environment, and economic development.

1.2.2 Environmental Policy

As stated in TVA's 2007 Strategic Plan, "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 (U.S.), 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 (Figure 1-1). 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 <https://www.tva.gov/Environment/Environmental-Stewardship/Land-Management/TVA-Land-Policy>.

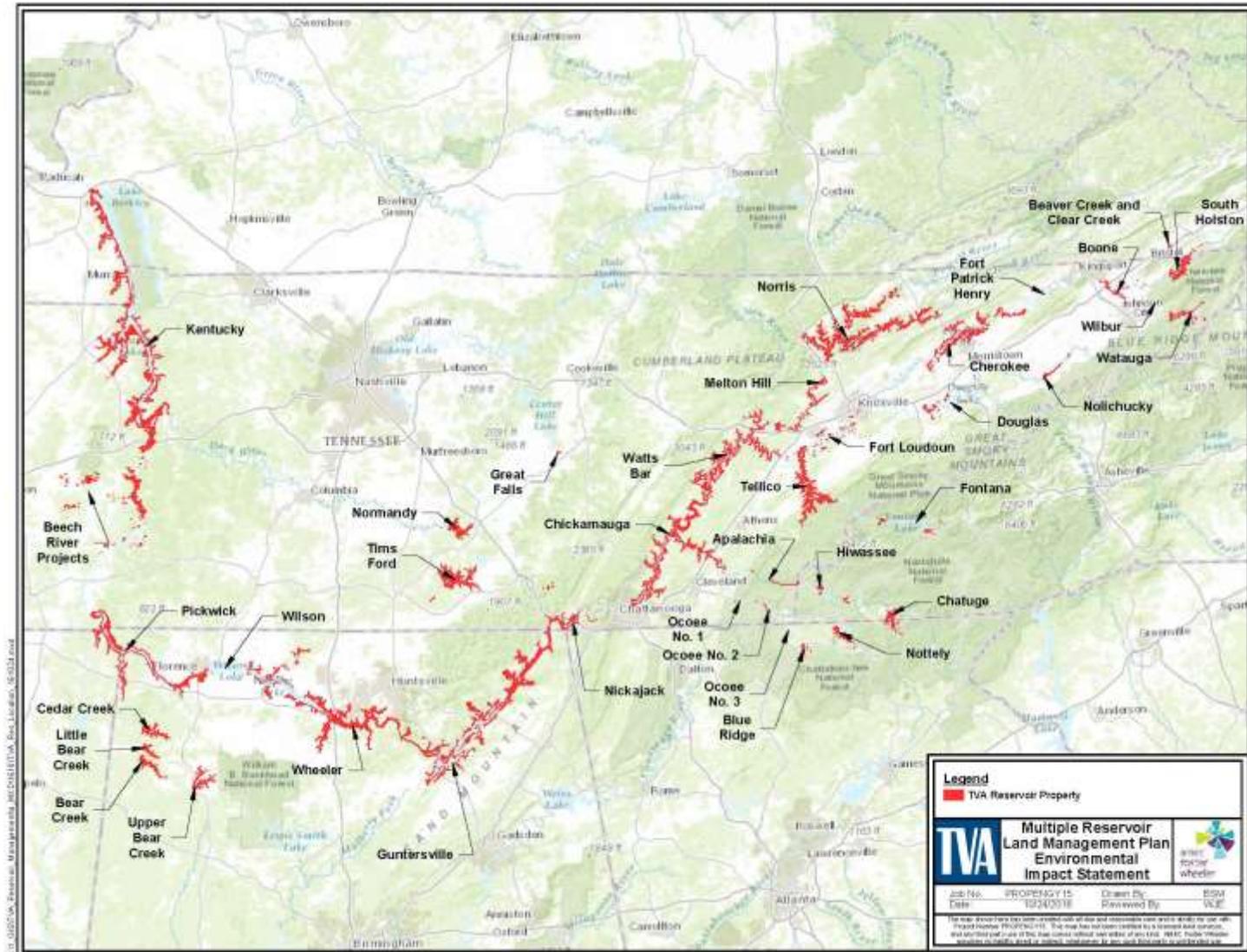


Figure 1-1. TVA Managed Reservoir Land

1.2.4 Shoreline Management Policy

In November 1998, TVA completed a Shoreline Management Initiative (SMI) EIS (TVA 1999) analyzing possible alternatives for managing residential shoreline development throughout the Valley. In April 1999, TVA adopted the agency's current Shoreline Management Policy (SMP), which incorporates a strategy of managing public shoreline through an integrated approach that conserves, protects, and enhances shoreline resources and public use opportunities while providing for reasonable and compatible use of the shoreline by adjacent residents. The SMP defines the standards for vegetation management, docks, shoreline stabilization, and other residential shoreline alterations. The SMI EIS is available at <https://www.tva.com/Environment/Environmental-Stewardship/Environmental-Reviews/Shoreline-Management-Policy>.

1.3 The Natural Resource Plan

In 2011, TVA completed 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 draft RLMP, are being developed based on the NRP to drive specific implementation efforts. The NRP is available at <https://tva.com/Environment/Environmental-Stewardship/Environmental-Reviews/Natural-Resource-Plan>.

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.

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 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 methodology, TVA will develop and update RLMPs, such as this proposed 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.

The CVLP will be recalibrated as needed (as described under Alternative B in Volume I of this EIS, TVA proposes to update the target ranges of the CVLP to incorporate the findings of the eight draft RLMPs). The CVLP was based, in part, on the anticipation that some parcels of land may be better allocated to different land use zones from those initially identified. For example, field assessments may identify additional areas that warrant the sensitive resource management allocation. In addition, during the creation or update of each individual RLMP, TVA may determine, either for its own management purposes or as a result of public input, that certain parcels of land should be used differently from how they have been used in the past. The preliminary results of the Fort Loudoun Reservoir planning effort have been included in determining the proposed revisions to the CVLP. The draft Fort Loudoun RLMP and revisions to the CVLP will be included in the five-year cyclic review of the NRP.

CHAPTER 2. REGIONAL OVERVIEW

The headwaters of the Tennessee River are in eastern Tennessee, in southwestern Virginia, western North Carolina, and in northern Georgia. The Tennessee River is formed by the confluence of the Holston and French Broad rivers just above Knoxville, Tennessee. The river flows in a southwesterly direction through Tennessee, crosses northern Alabama, forms a small portion of the northeastern boundary of Mississippi, and then flows north through western Tennessee and western Kentucky to empty into the Ohio River at Paducah, Kentucky, a distance of about 650 miles. The Tennessee River drains an area of 40,910 square miles about equal to the area of Ohio. The headwaters are in the Smoky Mountains and the Blue Ridge Mountains, which are the highest ranges east of the Rockies. The mountain region is in striking contrast to the relatively flat lands of northern Alabama and to the rolling land of western Kentucky.

The TVA Act was amended August 31, 1935, requiring TVA to report to Congress their recommendations for the unified development of the Tennessee River System. The proposed system would include nine main river, multi-purpose dams, and three or more tributary storage dams. The system would contribute substantially to the control of floods on the Tennessee River, lower Ohio River and lower Mississippi River, establish a formalized navigation channel, and provide many related benefits, including a large supply of electric power. By the end of 1970, the integrated water control system in the Valley was comprised of 32 major dams, nine on the Tennessee River and 23 on tributaries.

2.1 History of Fort Loudoun Dam

Fort Loudoun Dam was the last of seven main-river dams proposed for construction in TVA's report to Congress dated March 31, 1936, and is the upper link in the chain of dams for navigation envisioned in the TVA Act. The basic plan for the unified development of the Tennessee River included the Fort Loudoun project as the uppermost of the nine main-river projects.

During preliminary studies and investigations made by TVA, seven tentative sites were identified where the topography was fairly suitable for Fort Loudoun Dam. These sites included Sister Island (Tennessee River Mile [TRM] 605.0), Bussell Shoals (TRM 603.5), Belle Canton (TRM 602.3), Lenoir Ferry (TRM 601.6), Lenoir Shoals (TRM 601), Rock Quarry Bar (TRM 594.8), and Loudoun (TRM 592.2). After detailed engineering analysis, Belle Canton appeared to be the most favorable site from every angle. After selecting the preferred location, TVA began

to develop preliminary layouts for the project in 1938. In 1939, the Chief Engineer of TVA recommended the construction of the Fort Loudoun project. The project was described as “the next logical step in the unified development of the Tennessee River and its tributaries.”

Construction of Fort Loudoun Dam started on July 8, 1940.

The concrete mixing plant was erected and began operation August 20, 1941. Reservoir clearing began May 8, 1941 and was discontinued May 19, 1941. Work was resumed August 19, 1941, and continued until the work was completed March 10, 1943. Construction of the dam required 2,938,000 cubic yards of excavation, 582,000 cubic yards of concrete, 3,472,000 cubic yards of earthfill, and 122,000 cubic yards of riprap. Peak employment occurred in November 1942 when approximately 2,600 employees were on the pay roll. During the construction period, 19,519,000 man-hours were expended on the project, of which 13,746,000 were on the dam.

Temporary lock operation began in May 1942, and the permanent lock was completed in June 1943. Dam closure was made August 2, 1943, seven months ahead of the original schedule, and the first generating unit began commercial operation in November 9, 1943. The second unit began continuous operation January 15, 1944. The project included a concrete intake, spillway, nonoverflow section and lock, which adjoin an earth embankment. The over-all length is 4,190 feet, and the maximum height is 122 feet (TVA 1949).

Today, Fort Loudoun Dam continues to provide a number of benefits. During any time of the year, commercial barges and recreational vessels can travel with a guaranteed minimum water depth for over 50 river miles from the dam to where the Tennessee River begins at the confluence of the Holston and French Broad rivers. In addition to safe navigation travel, Fort Loudoun Reservoir assists in storing flood waters that protect the city of Chattanooga as well as producing a net dependable capacity of 162 megawatts of electricity. Other benefits of the reservoir include providing a supply of drinking water to cities and towns along the river, preserving aquatic and wildlife habitats, as well as providing opportunities for a wide variety of recreational activities (TVA 1997 and TVA 2015).

2.2 Fort Loudoun Reservoir and Present Shoreline

The Fort Loudoun Reservoir, which is 55 miles in length, affects the counties of Loudon, Blount, and Knox. Major tributary streams flowing into the reservoir include the Holston River, French Broad River, and Little River. Water from these tributaries is contributed by three states: Tennessee, Virginia, and North Carolina (TVA 1949).

The reservoir has a flood-storage capacity of 111,000 acres, and the water level in Fort Loudoun Reservoir varies around 6 feet in a normal year. The minimum winter elevation for the reservoir is 807 feet mean sea level (msl), and the typical summer operating range is between 812 feet msl and 813 feet msl (TVA 2015). Fort Loudoun Reservoir was impounded to promote navigation, assist in controlling floods, and generate low-cost electricity (TVA 1997).

2.2.1 Land Use and Prime Farmland

To create this reservoir, it was necessary to acquire approximately 396 tracts of land containing approximately 6,432.4 acres of land. The total amount of land inundated by the reservoir is approximately 3,643.6 acres. TVA has transferred approximately 969.2 acres to public agencies to be managed for recreation and 306.4 acres have been sold to private entities. The remaining approximate 1,513.4 acres are the scope of this RLMP.

The area surrounding the reservoir is primarily rural. The shoreline of the reservoir is comprised of a variety of land uses including forested areas, residential development, recreational areas, farmed areas and a relatively small amount of industrial and commercial uses primarily located in the vicinity of the larger cities. These uses are generally reflected in the land cover database for the parcels around the reservoir and the surrounding area which classifies the land cover in these areas as primarily forested and pasture land and developed open space. Developed open space includes single family housing units on large lots, parks, golf courses, and vegetation planted in developed settings for recreation, erosion control, or aesthetic purposes.

According to TVA's 1998 SMI EIS, TVA owns approximately 74 miles of the 378 total miles of shoreline (20 percent) on Fort Loudoun Reservoir (see Volume I, Table 3-1). Approximately 80 percent of the shoreline miles on this reservoir is privately owned, and is available for residential shoreline access development (see Volume I, Table 3-2). In the SMI EIS, TVA estimated that of that 80 percent, approximately 63 percent of this privately- owned shoreline is currently developed with residential subdivisions. TVA has holds flowage easement rights along portions of this private shoreline.

As identified above, TVA originally purchased approximately 6,432.4 acres of land in fee for Fort Loudoun Reservoir, some of this land has been sold, transferred to public agencies to be managed for recreation, or is inundated. However, any structures placed within existing flowage easements are subject to Section 26a of the TVA Act. Section 26a is designed to ensure that construction along the shoreline and in waters of the Tennessee River system and the TVA reservoirs does not adversely impact TVA's responsibility for managing the river system and for

achieving “Unified Development and Regulation of the Tennessee River.” For more information on TVA’s SMP, see Section 3.4 of this draft RLMP.

TVA public land on the Fort Loudoun Reservoir contains 240 acres of prime farmland and 96.2 acres of farmland of state importance (Table 2-1). Prime farmland has soil with the best combination of physical and chemical characteristics for producing food and fiber and is protected from conversion to industrial and nonagricultural uses by the United States Department of Agriculture (USDA). It is noted, however, that current soil mapping of prime farmland soils does not account for existing developed uses that may have previously disturbed and potentially converted prime farmland.

The majority (149.9 and 53.4 acres, respectively) of both prime farmland and farmland of statewide importance acreage occurs in Zone 6 (Developed Recreation) where major soil disturbances could occur in specific locations, if recreation facilities are constructed.

Conversely, large areas could remain unaffected for more dispersed recreation management. Only 34.4 acres of prime farmland and 29.3 acres of farmland of statewide importance occur in Zones 3 and 4 which are zones that house uses that have little or no soil disturbance. Major soil disturbance could occur when TVA facilities or other public facilities are constructed in lands designated for Zone 2, which includes 43.5 acres of prime farmland and 5.3 acres of farmland of statewide importance. However, most parcels designated for Zone 2 already contain facilities that are not likely to require substantial modification. The least amount of prime farmland (2.7 acres) and farmland of statewide importance (0 acre) occurs in Zone 5.

Table 2-1. Prime Farmland and Farmland of Statewide Importance in Fort Loudoun Reservoir

Zone	Prime Farmland (acres)	Farmland of Statewide Importance (acres)
Zone 2 - Project Operations	43.5	5.3
Zone 3 - Sensitive Resource Management	17.7	0.5
Zone 4 - Natural Resource Conservation	16.7	28.8
Zone 5 – Industrial	2.7	0
Zone 6 - Developed Recreation	149.9	53.4
Zone 7 - Shoreline Access	9.6	8.2
Total	240.0	96.2

Source: USDA NRCS 2016

For more information on land use and prime farmland resources and the potential impacts of the draft RLMP, see Volume I, Sections 3.2 and 3.3.

2.2.2 Recreation

TVA provides public lands for developed and dispersed recreational purposes through the reservoir lands planning process. Developed recreation includes campgrounds, lodges, marinas, boat-launching ramps, parks, swimming pools, beaches and golf courses. Dispersed recreation activities include picnicking, primitive camping, hiking, bank fishing, hunting, kayaking and canoeing. In 2005, TVA developed a recreation strategic plan aimed at collaboratively enhancing recreational opportunities and addressing unmet recreational needs while managing the resources of the Tennessee River system (TVA 2005). This strategy laid out guiding principles for how to best design and develop recreation opportunities. During this reservoir lands planning effort, tracts of TVA-managed lands around Fort Loudoun Reservoir were categorized based upon a suitable use that is consistent with TVA policy and guidelines and applicable laws and regulations.

On Fort Loudoun Reservoir, developed recreation provides modern facilities and amenities such as campgrounds, developed boat launches/ramps, parks and a myriad of day use facilities (picnic areas, swimming beaches, and fishing piers). These uses primarily occur on TVA lands allocated to Zone 6 (Developed Recreation) and Zone 2 (Project Operations). On Fort Loudoun Reservoir, approximately 39 percent (590.8 acres) of TVA land is proposed for allocation to Zone 6 and approximately 31 percent (477.2 acres) is proposed for allocation to Zone 2 (see Figure 3-1).

Fort Loudoun Reservoir is an outdoor recreation resource that attracts visitors from within the Knoxville Metropolitan Area and outside the region. A total of 32 parcels contain 54 developed recreation areas on Fort Loudoun Reservoir. Many of these recreation areas are located on properties that TVA transferred, leased or licensed for recreation development and use. Public parks developed on lands made available by TVA include Anchor Park, Carl Cowen Park, Concord Park, Louisville Point Park, Maloney Road Park, Marine Park, and Louisville Park. Concord Park, managed by Knox County, has trails, boat-launching ramps, fishing piers, picnic facilities, sports fields, swimming pool, and a swimming beach. Other public agencies have also developed boat-launching ramps (City of Knoxville) on TVA lands at strategic locations around the reservoir. Commercial recreation operations include Fort Loudoun Dam Marina, Lane's Landing Marina, Louisville Landing Marina, Southland RV Park, Volunteer Landing Marina, Whispering Cove Marina and Willow Point Marina. A notable developed area includes the Fort

Loudoun Dam Marina. Fort Loudoun Dam Marina is one of the largest marinas on the TVA reservoir system and is located just above the Fort Loudoun Dam.

Table 2-2 itemizes developed recreation area lands that are managed by TVA or another public agency for recreation purposes. Table 2-3 summaries commercial, private, and semi-private developed recreation areas. Tables 2-2 and 2-3 do not itemize recreation areas on non-TVA shorelands (Zone 1) because these areas are beyond the scope of this draft RLMP. Fort Loudoun Reservoir parcel descriptions (see Chapter 4) further describe the management entity and management descriptions of recreation facilities on lands managed by either TVA or under contractual agreement.

On Fort Loudoun Reservoir, dispersed recreation areas provide unconfined opportunities that are predominantly nature-based or water-based. Dispersed recreation could occur on lands allocated to Zone 2 (Project Operations) and undeveloped areas allocated Zone 6 (Developed Recreation) as well as on land allocated to Zone 3 (Sensitive Resource Management) or, Zone 4 (Natural Resource Conservation). For example, on lands allocated to Zone 4 (Natural Resource Conservation) dispersed recreation activities include hunting, wildlife observation, fishing and camping on undeveloped sites.

Table 2-2. Developed Public Recreation Areas on TVA Lands on the Fort Loudoun Reservoir

Recreation Area	Managing Entity	Parcel Location
Fort Loudoun Dam Reservation	TVA	3
Lenoir City Park	Lenoir City	5
Boat Ramp	State of Tennessee	14
Concord Park	Knox County	21
Anchor Park	Town of Farragut	24
Carl Cowen Park	Knox County	33
Sequoyah Park	City of Knoxville	48
Boat Ramp	City of Knoxville	52
Volunteer Landing	City of Knoxville	55
Recreation Area	City of Knoxville	57
Marine Park	Knox County	59
Maloney Road Park	Knox County	60
I.C. King Park	Knox County	65
Boat Ramp	State of Tennessee	70
Little River Boat Ramp	TVA	72
Singleton Recreation Area	Blount County	76
Boat Ramp	State of Tennessee	85

Recreation Area	Managing Entity	Parcel Location
Louisville Point Park	Blount County	99
Poland Creek Recreation Area	City of Louisville	103
Ish Creek Boat Ramp	TVA	111
Boat Ramp	State of Tennessee	113
Boat Ramp	State of Tennessee	114
Boat Ramp	State of Tennessee	118
Paddle Boat Putt In	TVA/TWRA	125

Table 2-3. Developed Commercial, Private and Semi-Private (camps) Recreation Areas on TVA Lands on the Fort Loudoun Reservoir

Recreation Area	Managing Entity	Parcel Location
Lane's Landing Bait and Tackle	Commercial	2
Fort Loudoun Marina	Commercial	5
Group Camp	Private Party	13
Willow Point Marina	Commercial	68
Southland RV Park	Commercial	68
Louisville Landing Marina	Commercial	93
Whispering Cover Marina	Commercial	113
Campground	Commercial	122

For more information on recreation resources and the potential impacts of the draft RLMP, see Volume I, Section 3.4.

2.2.3 Terrestrial Ecology

Fort Loudoun Reservoir lies within the Ridge and Valley ecoregion (U.S. Environmental Protection Agency 2013). The Ridge and Valley Ecoregion contains long stretches of ridges with adjacent valleys that run in a southwestern-to-northeastern direction. The variety of landforms, soils, climate, and geology across the Ridge and Valley have allowed for an extremely diverse assemblage of animals, including migratory birds of conservation concern. Deciduous forests and mixed evergreen-deciduous forests provide wildlife habitat among the intense agriculture and urban sprawl (U.S. Geologic Survey [USGS] 2016). Table 2-4 contains a summary of the land cover within and in the vicinity of Fort Loudoun Reservoir (Homer et al. 2015).

Table 2-4. Land Cover on TVA Owned Parcels and within the Vicinity of Fort Loudoun Reservoir

Land Cover Type	TVA Property		Vicinity (5-Mile Radius)	
	Acres ¹	Percent Cover (%)	Acres ¹	Percent Cover (%)
Barren Land	8.3	0.6	681.8	0.2
Developed		0.0		0.0
Developed, High Intensity	12.5	0.8	7418.9	2.1
Developed, Medium Intensity	175.0	11.6	45255.0	12.9
Developed, Low Intensity	51.6	3.4	22457.5	6.4
Developed, Open Space	178.1	11.9	60917.3	17.4
Forest		0.0		0.0
Deciduous Forest	435.6	29.0	85918.3	24.6
Evergreen Forest	138.3	9.2	13463.6	3.9
Mixed Forest	101.0	6.7	9860.3	2.8
Shrubland		0.0		0.0
Shrub/Scrub	10.5	0.7	2370.0	0.7
Herbaceous		0.0		0.0
Grassland/Herbaceous	15.4	1.0	4949.3	1.4
Hay/Pasture	136.2	9.1	73139.6	20.9
Planted/Cultivated		0.0		0.0
Cultivated Crops	1.1	0.1	2517.1	0.7
Wetlands/Open Water		0.0		0.0
Woody Wetlands	61.5	4.1	2130.6	0.6
Emergent Herbaceous Wetlands		0.0	77.27	0.0
Open Water	177.3	11.8	18466.8	5.3
Total	1,502.3	100	349,623.5	100

¹ Source: Homer et al. 2015

Oak-hickory deciduous forest is the most abundant forest type in the eastern U.S. and is prevalent in the Fort Loudoun Reservoir region. Some mixed deciduous-evergreen and evergreen forests are also present in this region. Numerous bird species nest in deciduous forests. Typical species include wild turkey, whip-poor-will, ruby-throated hummingbird, red-eyed vireo, wood thrush, black-throated green warbler, black-and-white warbler, ovenbird, hooded warbler, and scarlet tanager. Several additional migratory bird species of concern utilize these habitats in this area including black-billed cuckoo, Kentucky warbler, peregrine falcon, wood thrush and worm-eating warbler (USFWS 2016a). Common mammal species of deciduous forests include black bear, white-tailed deer, red bat, eastern chipmunk, eastern gray and

southern flying squirrels, white-footed mouse, southern red-backed and woodland voles, short-tailed shrew, gray fox, and bobcat.

Deciduous forests and mixed evergreen-deciduous forests account for 36 percent of the land cover for the Fort Loudoun Reservoir parcels (see Table 2-4). Evergreen forests make up an additional 9 percent of the land cover. Seeps, streams, and temporary ponds in deciduous forests provide habitat for numerous amphibians including American and Fowler's toads, green frog, northern cricket frog, and other frogs, and a range of salamanders including spotted salamanders. Reptiles commonly found in deciduous forests especially near water include eastern fence lizard, ground skink, five-lined skink, eastern box turtle, eastern worm-snake, black racer, and ring-necked snake. The riparian zones along streams within deciduous forests provide nesting habitat for Acadian flycatchers, northern parula, and a migratory species of concern in this area, the Louisiana waterthrush (USFWS 2016a).

Evergreen and mixed evergreen-deciduous forests provide nesting for woodland birds including pine and yellow-throated warblers, and great crested flycatcher. Several additional migratory bird species of concern utilize these habitats in this area including black-billed cuckoo, black-capped chickadee, Canada warbler, fox sparrow, Kentucky warbler, olive-sided flycatcher, prairie warbler, and red crossbill (USFWS 2016a). Portions of this forest type have been damaged by southern pine beetles in recent years. Several stands of dead pines exist on TVA lands, and TVA has performed salvage harvests in some stands. Dead pines provide foraging sites for woodpeckers and roosting sites for little brown and silver-haired bats. Other animals that inhabit evergreen and evergreen-deciduous forests but are not restricted to them include white-tailed deer, wild turkey, black bear, eastern mole, southern bog lemming, eastern kingsnake, smooth earth-snake, eastern fence lizard, six-lined racerunner, and a variety of salamanders, frogs, and toads, especially near wet areas.

Most of the TVA lands consist of narrow strips or small blocks of forest. Many of these lands are adjacent to larger contiguous forest blocks contributing habitat to area-sensitive species of wildlife that favor interior woodland habitats. Many of these adjacent lands were formerly owned by TVA and transferred to other federal agencies such as the U.S. Forest Service and the National Park Service, and to state agencies. These lands combine with the TVA lands to form large blocks of forested habitat adjacent to the reservoir.

Non-forested herbaceous community types in the Fort Loudoun Reservoir region are dominated by pasturelands and hayfields. Herbaceous habitats, including grasslands, barrens, hayfields, and pastures account for approximately 10 percent of the land cover on the reservoir parcels

(see Table 2-4). Early successional habitats provide habitat for a variety of bird species including eastern bluebird, eastern meadowlark, American crow, and red-tailed hawk. Additional migratory bird species of concern utilize these habitats in this area including short-eared owl and willow flycatcher (USFWS 2016a). Amphibians and reptiles that use these habitats include spring peeper, chorus frog, and common garter snake.

Bird and mammal diversity greatly increases at edge habitats especially those between forested areas bordered by early successional habitats. Birds commonly found at these edge habitats include wild turkey, great crested flycatcher, white-eyed vireo, Carolina wren, blue-gray gnatcatcher, brown thrasher, common yellowthroat, yellow-breasted chat, indigo bunting, eastern towhee, field and song sparrow, and orchard oriole. Several additional migratory bird species of concern utilize these habitats in this area including black-capped chickadee, blue-winged warbler, loggerhead shrike, peregrine falcon, and willow flycatcher (USFWS 2016a). Mammals typically inhabiting edges include eastern cottontail, eastern harvest mouse, red fox, coyote, long-tailed weasel, and striped skunk.

The reservoir parcels provide wetlands, including wooded swamps and open water habitats, and associated riparian zones that are used by a variety of wildlife. Common species include great blue heron, green heron, belted kingfisher, common yellowthroat, and northern parula. Twelve colonial nesting bird colonies/heronries have been observed on TVA parcels on Fort Loudoun Reservoir (TVA 2016a). Many additional migratory bird species of concern utilize these habitats in this area including bald eagle, Louisiana waterthrush, rusty blackbird, short-eared owl, and willow flycatcher (USFWS 2016a). Shallow embayments, especially those with emergent vegetation, provide foraging habitat for waterfowl. Common waterfowl include wood ducks, Canada geese, and mallards. Other waterfowl periodically present include American black duck, gadwall, green-winged teal, ring-necked duck, lesser scaup, common goldeneye, bufflehead, and hooded merganser.

Shorebird use of the Fort Loudoun Reservoir is limited to shallow embayments and exposed mud flats. Species such as spotted sandpiper that forage along the margins of reservoirs and killdeer that are not restricted to foraging on mud flats are commonly observed. Common amphibians found in the riparian zones include green frog, eastern narrowmouth toad, and Fowler's toad. Reptiles include northern water snake, common snapping turtle, and painted turtles. Common mammals include mink, muskrat, raccoon, and American beaver.

A search of the TVA Natural Heritage database in May 2016 indicated that 105 caves are located within 3 miles of Fort Loudoun Reservoir. Two caves are located on TVA parcels (TVA 2016a).

2.2.3.1 Invasive Nonnative Species

Many of the planned TVA parcels around Fort Loudoun Reservoir contain a substantial amount of invasive nonnative species. Executive Order (EO) 13112 defines an invasive nonnative species as any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem; and whose introduction does or is likely to cause economic or environmental harm or human health (Federal Register Vol. 64, No. 25, February 3, 1999).

The Southeastern Exotic Plant Pest Council provides a list of nonnative invasive species that could pose potential threats to native ecosystems and human health for each southeastern state. In reviewing the Tennessee exotic plant pest list (Tennessee Exotic Plant Pest Council 2009), there were 26 species occurring in Tennessee that pose a severe threat to native ecosystems observed in the Fort Loudoun Reservoir region (Table 2-5).

Table 2-5. Invasive Non-Native Plant Species that Pose a Severe Threat Known to Occur in Tennessee

Common Name	Scientific Name
Asian bittersweet	<i>Celastrus orbiculatus</i>
Autumn olive	<i>Elaeagnus umbellata var. parviflora</i>
Cheat grass	<i>Bromus tectorum</i>
Chinese privet	<i>Ligustrum sinense</i>
Chinese yam	<i>Dioscorea oppositifolia</i>
Common privet	<i>Ligustrum vulgare</i>
Common St. John's-wort	<i>Hypericum perforatum</i>
Hydrilla	<i>Hydrilla verticillata</i>
Japanese honeysuckle	<i>Lonicera japonica</i>
Japanese knotweed	<i>Polygonum cuspidatum</i>
Japanese stiltgrass	<i>Microstegium vimineum</i>
Johnson grass	<i>Sorghum halepense</i>
Korean clover	<i>Kummerowia stipulacea</i>
Kudzu	<i>Pueraria montana var. lobata</i>
Mimosa	<i>Albizia julibrissin</i>
Multiflora rose	<i>Rosa multiflora</i>
Princess tree	<i>Paulownia tomentosa</i>

Common Name	Scientific Name
Purple loosestrife	<i>Lythrum salicaria</i>
Sericea lespedeza	<i>Lespedeza cuneata</i>
Shrubby bushclover	<i>Lespedeza bicolor</i>
Tree of heaven	<i>Ailanthus altissima</i>

Source: Tennessee Exotic Plant Pest Council 2009

All of these species have the potential to adversely impact the native plant communities because of their potential to spread rapidly and displace native vegetation. TVA considers all of the species a severe threat to local plant communities.

In addition to invasive or non-native plant species discussed above, there are several exotic, non-native, and/or pest insect species and plant diseases that are known to occur within the counties encompassing Fort Loudoun Reservoir. These insects and diseases can have devastating impacts on native plant communities and human crops/fruits. The insects include: Japanese beetle (*Popillia japonica*), brown marmorated stink bug (*Halyomorpha halys*), emerald ash borer (*Agrilus planipennis*), hemlock woolly adelgid (*Adelges tsugae*), kudzu bug (*Megacopta cribraria*), spruce beetle (*Dendroctonus rufipennis*), and southern pine beetle (*Dendroctonus frontalis*) (EDDMapS 2016). These species all have the potential to pose problems to native vegetation, wildlife, crops, landscaping and gardens, and/or overall ecosystems due to the lack of natural predators or diseases to help control their populations giving them the ability to out-compete native species.

The following plant diseases are also known to occur in the counties containing Fort Loudoun Reservoir: butternut canker (*Sirococcus clavigignenti-juglandacearum*), dogwood anthracnose (*Discula destructiva*), Heterobasidion root rots (*Heterobasidion* spp.), oak wilt (*Ceratocystis fagacearum*), white pine blister rust (*Cronartium ribicola*), Neonectria canker (*Neonectria faginata*), and thousand cankers disease (*Geosmithia morbida*). Many of these diseases target certain plant species or groups of species, and can have serious impacts to local populations of those plants and trees.

In addition to invasive or non-native plant species, and insects and diseases that pose threats to plants and crops, there are several exotic, non-native, and/or pest terrestrial wildlife and insect species that are known to occur within the region. These include: Asian tiger mosquito (*Aedes albopictus*), cat (feral) (*Felis catus*), and European starling (*Sturnus vulgaris*) (EDDMapS 2016). These species have the potential to pose problems to native wildlife and ecosystems due to

their ability to out-compete native species and spread quickly. Some of these species can pose threats to human health and safety. Asian tiger mosquitoes are known to transmit various diseases to humans.

2.2.4 Aquatic Ecology

Unimpounded rivers of the Ridge and Valley Ecoregion typically consist of limestone rubble and bedrock riffles, sandy silty pools, and some extensive sand and gravel shoals (Etnier and Starnes 1993). These conditions exist in upper reaches of reservoirs where free-flowing streams transition into impounded reservoirs as well as in reservoir tailwaters. Hypolimnetic water discharged into the tailwaters can be very cold and have low dissolved oxygen content that may impair water quality. Subsequently, the stretch of river directly downstream of dams can have less diverse aquatic communities as compared to pre-impoundment conditions. TVA has improved water quality below many of its hydroelectric facilities including implementation of measures designed to mimic more natural riverine conditions.

Aquatic ecological conditions in streams and reservoirs are monitored under a number of TVA programs. Aquatic ecological conditions in the larger reservoirs have been monitored using the Reservoir Vital Signs Monitoring Program (RVSMP), which focuses on (1) physical and chemical characteristics of waters; (2) physical and chemical characteristics of sediments; (3) sampling the benthic macroinvertebrate community; and (4) fish assemblage sampling. The RVSMP data include annual fish sampling on tributary reservoirs a two-year rotation sampling cycle. Ratings are based primarily on fish community structure and function, using an analysis tool known as the Reservoir Fish Assemblage Index (RFAI) (McDonough and Hickman 1999). Both RFAI and benthic community samples were taken in the forebay area (near the dam) and transition zone of Fort Loudoun Reservoir where the reservoir transitions from a river-like environment to a lake-like one (Table 2-6).

Table 2-6. RFAI and Benthic Community Scores for Fort Loudoun Reservoir (2011-2015)

Year	RFAI Scores		Benthic Community Scores	
	Forebay	Transition	Forebay	Transition
2011	Fair	Fair	Poor	Fair
2013	Fair	Fair	Poor	Fair
2015	Good	Fair	Poor	Poor

Source: TVA 2016b

The fish species collected during the RVSMP sampling efforts represent typical species found in large river and lentic habitats (Table 2-7). The variety of fish collected in the Fort Loudoun Reservoir was good, but catch rates were slightly lower than desired and composition was dominated by a few species such as gizzard shad, bluegill and/or largemouth bass. Overall, the fish community typically scores good or at the upper end of the fair range at the forebay and transition, while scores at the inflow have generally fluctuated within the fair range.

Table 2-7. Fish Species in Fort Loudoun Reservoir

Common Name	Scientific Name
American brook lamprey	<i>Lampetra appendix</i>
Banded sculpin	<i>Cottus carolinae</i>
Bigeye chub	<i>Hybopsis amblops</i>
Black buffalo	<i>Ictiobus niger</i>
Black crappie	<i>Pomoxis nigromaculatus</i>
Black redhorse	<i>Moxostoma duquesnei</i>
Blackspotted topminnow	<i>Fundulus olivaceus</i>
Blackstripe topminnow	<i>Fundulus notatus</i>
Blue catfish	<i>Ictalurus furcatus</i>
Bluegill	<i>Lepomis macrochirus</i>
Bluntnose minnow	<i>Pimephales notatus</i>
Brook silverside	<i>Labidesthes sicculus</i>
Bullhead minnow	<i>Pimephales vigilax</i>
Channel catfish	<i>Ictalurus punctatus</i>
Common carp	<i>Cyprinus carpio</i>
Flathead catfish	<i>Pylodictis olivaris</i>
Freshwater drum	<i>Aplodinotus grunniens</i>
Gizzard shad	<i>Dorosoma cepedianum</i>
Golden redhorse	<i>Moxostoma erythrurum</i>
Golden shiner	<i>Notemigonus crysoleucas</i>
Green sunfish	<i>Lepomis cyanellus</i>
Hybrid striped x white bass	<i>Hybrid morone (chrysops x sax)</i>
Lake sturgeon	<i>Acipenser fulvescens</i>
Largemouth bass	<i>Micropterus salmoides</i>
Logperch	<i>Percina caprodes</i>
Longnose gar	<i>Lepisosteus osseus</i>
Mississippi silverside	<i>Menidia audens</i>
Northern hog sucker	<i>Hypentelium nigricans</i>
Quillback	<i>Carpionodes cyprinus</i>
Redbreast sunfish	<i>Lepomis auritus</i>
Redear sunfish	<i>Lepomis microlophus</i>
River carpsucker	<i>Carpionodes carpio</i>
River redhorse	<i>Moxostoma carinatum</i>

Common Name	Scientific Name
Rock bass	<i>Ambloplites rupestris</i>
Sauger	<i>Stizostedion canadense</i>
Silver redhorse	<i>Moxostoma anisurum</i>
Skipjack herring	<i>Alosa chrysochloris</i>
Smallmouth bass	<i>Micropterus dolomieu</i>
Smallmouth buffalo	<i>Ictiobus bubalus</i>
Snubnose darter	<i>Etheostoma simoterum</i>
Spotfin shiner	<i>Cyprinella spiloptera</i>
Spotted bass	<i>Micropterus punctulatus</i>
Spotted gar	<i>Lepisosteus oculatus</i>
Spotted sucker	<i>Minytrema melanops</i>
Striped bass	<i>Morone saxatilis</i>
Striped shiner	<i>Luxilus chrysocephalus</i>
Tangerine darter	<i>Percina aurantiaca</i>
Threadfin shad	<i>Dorosoma petenense</i>
Walleye	<i>Stizostedion vitreum</i>
Warmouth	<i>Lepomis gulosus</i>
White bass	<i>Morone chrysops</i>
White crappie	<i>Pomoxis annularis</i>
Yellow bass	<i>Morone mississippiensis</i>
Yellow perch	<i>Perca flavescens</i>

Source: TVA 2016c

Bottom life (benthic community) has rated poor at the forebay each sampling year since 2011 and fair to poor at the mid-reservoir location. Relatively few organisms are usually collected from the forebay location, and those collected are primarily species capable of tolerating poor conditions. Bottom life at the transition location typically rates fair due to greater diversity, which includes a better representation of intolerant species such as mayflies.

2.2.4.1 Invasive Nonnative Aquatic Species

Although there are many exotic or introduced aquatic species within the region, there are a few species that are considered more detrimental due to their ability to have broad impacts to overall aquatic systems as well as direct impacts to humans. These include Asian carp, especially bighead carp (*Hypophthalmichthys nobilis*) and silver carp (*Hypophthalmichthys molitrix*) (EDDMapS 2016), and zebra mussels (*Dreissena polymorpha*).

Asian carp cause serious damage to the native fish populations in the lakes and rivers that they infest because they out-compete other fish for food and space. Carp are also thought to lower

water quality, which can kill off sensitive organisms like native freshwater mussels. Asian carp have been known to dominate entire streams, effectively pushing out the native species. Asian carp are also known to pose danger to humans due to their habit of jumping out of the water and striking boaters and water skiers and damaging boats and equipment.

Zebra mussels are notorious for their biofouling capabilities by colonizing water supply pipes of hydroelectric and nuclear power plants, public water supply plants, and industrial facilities. They colonize pipes constricting flow, therefore reducing the intake in heat exchangers, condensers, firefighting equipment, and air conditioning and cooling systems. Navigational and recreational boating can be affected by increased drag due to attached mussels. Small mussels can get into engine cooling systems causing overheating and damage. Navigational buoys have been sunk under the weight of attached zebra mussels. Zebra mussels can have profound effects on the ecosystems they invade. They primarily consume phytoplankton, but other suspended material is filtered from the water column including bacteria, protozoans, zebra mussel veligers, other microzooplankton and silt (Benson et al. 2016).

For information on aquatic ecology and potential impacts of the draft RLMP, see Volume I, Section 3.6.

2.2.5 Threatened and Endangered Species

TVA biologists and natural resource specialists used the TVA Natural Heritage database to assess the endangered and threatened species within and around Fort Loudoun Reservoir. The TVA Natural Heritage database was created to ensure that environmental compliance activities are conducted in a consistent manner across the TVA Region and that these activities meet the requirements of the National Environmental Policy Act (NEPA) and the Endangered Species Act. Federally listed and state-listed species identified from the TVA Natural Heritage database searches that are known to occur in the counties surrounding Fort Loudoun Reservoir are presented in Table 2-8. For the purpose of this document state-listed species includes those that are being tracked, in need of management, candidates, proposed for listing and of special concern. As noted below, there are no federally or state-listed plants species occurring on TVA parcels on Fort Loudoun Reservoir. There is one terrestrial wildlife species known to occur on TVA parcels, however, suitable habitat is present for many of the other listed species. No listed aquatic species are known to occur within TVA parcels, but 12 are known to occur in the reservoir adjacent to the parcels.

Table 2-8. Federally and State-Listed Species in the Fort Loudoun Reservoir Counties

Common Name	Scientific Name	Status ¹	
		Federal	State (Rank)
Mammals			
Carolina northern flying squirrel	<i>Glaucomys sabrinus coloratus</i>	LE	E (S1S2)
Gray bat	<i>Myotis grisescens</i>	LE	E (S2)
Hairy-tailed mole	<i>Parascalops breweri</i>	--	D (S3)
Indiana bat	<i>Myotis sodalis</i>	LE	E (S1)
Northern long-eared bat	<i>Myotis septentrionalis</i>	LT	S1S2
Rafinesque's big-eared bat	<i>Corynorhinus rafinesquii</i>	--	D (S3)
Smoky shrew	<i>Sorex fumeus</i>	--	D (S4)
Southeastern shrew	<i>Sorex longirostris</i>	--	D (S4)
Southern Appalachian woodrat	<i>Neotoma floridana haematoresia</i>	--	D (S2)
Southern bog lemming	<i>Synaptomys cooperi</i>	--	D (S4)
Woodland jumping mouse	<i>Napaeozapus insignis</i>	--	D (S4)
Birds			
Bald eagle	<i>Haliaeetus leucocephalus</i>	DM	D (S3)
Common barn-owl	<i>Tyto alba</i>	--	D (S3)
Common moorhen	<i>Gallinula chloropus</i>	PS	D (S1B)
Common raven	<i>Corvus corax</i>	--	T (S2)
King rail	<i>Rallus elegans</i>	--	D (S2)
Least bittern	<i>Ixobrychus exilis</i>	--	D (S2B)
Peregrine falcon	<i>Falco peregrinus</i>	PS:LE	E (S1B)
Sharp-shinned hawk	<i>Accipiter striatus</i>	PS	D (S3BS4N)
Swainson's warbler	<i>Limnothlypis swainsonii</i>	--	D (S3)
Virginia rail	<i>Rallus limicola</i>	--	TRKD (S1BS3N)
Yellow-bellied sapsucker	<i>Sphyrapicus varius</i>	--	D (S1BS4N)
Reptiles			
Eastern slender glass lizard	<i>Ophisaurus attenuatus longicaudus</i>	--	D(S3)
Northern pine snake	<i>Pituophis melanoleucus</i>	--	T (S3)
Amphibians			
Berry Cave salamander	<i>Gyrinophilus gulolineatus</i>	C	T (S1)
Four-toed salamander	<i>Hemidactylium scutatum</i>		D (S3)
Hellbender	<i>Cryptobranchus alleganiensis</i>	PS	D (S3)
Tennessee cave salamander	<i>Gyrinophilus palleucus</i>		T (S2)
Insects			
Allegheny snaketail	<i>Ophiogomphus incurvatus alleghaniensis</i>	--	TRKD (S1)
Margaret's river cruiser	<i>Macromia margarita</i>	--	TRKD (S2S3)

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Common Name	Scientific Name	Status ¹	
		Federal	State (Rank)
Crustaceans			
A cave amphipod	<i>Stygobromus fecundus</i>	--	TRKD (S1)
A cave obligate isopod	<i>Stygobromus sparsus</i>	--	TRKD (S1)
Gastropods			
Anthony's river snail	<i>Athearnia anthonyi</i>	LE	E (S1)
Ornate bud	<i>Pilsbryna aurea</i>	--	TRKD (S1)
Ornate rocksnailed	<i>Lithasia geniculata</i>	--	TRKD (S2)
Spiny riversnail	<i>Io fluviialis</i>	--	TRKD (S2)
Mussels			
Birdwing pearlymussel	<i>Lemiox rimosus</i>	LE	E (S1)
Cumberland monkeyface	<i>Quadrula intermedia</i>	LE	E (S1)
Dromedary pearlymussel	<i>Dromus dromas</i>	LE	E (S1)
Fanshell	<i>Cyprogenia stegaria</i>	LE	E (S1)
Fine-rayed pigtoe	<i>Fusconaia cuneolus</i>	LE	E (S1)
Green blossom pearlymussel	<i>Epioblasma torulosa gubernaculum</i>	LE	EXTI (SX)
Orange-foot pimpleback	<i>Plethobasus cooperianus</i>	LE	E (S1)
Pink mucket	<i>Lampsilis abrupta</i>	LE	E (S2)
Ring Pink	<i>Obovaria retusa</i>	LE	E (S1)
Sheepnose	<i>Plethobasus cyphus</i>	LE	TRKD (S2S3)
Shiny pigtoe pearlymussel	<i>Fusconaia cor</i>	LE	E (S1)
Tan riffleshell	<i>Epioblasma florentina walkeri</i>	LE	E (S1)
Tennessee clubshell	<i>Pleurobema oviforme</i>	--	TRKD (S2S3)
Tuberculed blossom pearlymussel	<i>Epioblasma torulosa</i>	LE	EXTI (SX)
Turgid blossom pearlymussel	<i>Epioblasma turgidula</i>	LE	EXTI (SX)
Fish			
Ashy darter	<i>Etheostoma cinereum</i>	--	T (S2S3)
Blotchside logperch	<i>Percina burtoni</i>	--	D (S2)
Blue sucker	<i>Cycleptus elongatus</i>	--	T (S2)
Citico darter	<i>Etheostoma sitikuense</i>	LE	E (S1)
Flame chub	<i>Hemitremia flammea</i>	--	D (S3)
Highfin carpsucker	<i>Carpionodes velifer</i>	--	D (S2S3)
Lake sturgeon	<i>Acipenser fulvescens</i>	--	E (S1)
Longhead darter	<i>Percina macrocephala</i>	--	T (S2)
Marbled darter	<i>Etheostoma marmorinum</i>	LE	E (S1)
Smoky dace	<i>Clinostomus funduloides ssp. 1</i>	--	D (S1S2)
Smoky madtom	<i>Noturus baileyi</i>	LE	E (S1)
Snail darter	<i>Percina tanasi</i>	LT	T (S2S3)
Spotfin chub	<i>Erimonax monachus</i>	LT	T (S2)
Tangerine darter	<i>Percina aurantiaca</i>	--	D (S3)

Common Name	Scientific Name	Status ¹	
		Federal	State (Rank)
Tennessee dace	<i>Chrosomus tennesseensis</i>	--	D (S3)
Yellowfin madtom	<i>Noturus flavipinnis</i>	LT	E (S1)
Plants			
Alternateleaf archidium moss	<i>Archidium alternifolium</i>	--	T (S1)
American barberry	<i>Berberis canadensis</i>	--	SPCO (S2)
American funaria moss	<i>Funaria americana</i>	--	T (S1?)
American ginseng	<i>Panax quinquefolius</i>	--	S-CE (S3S4)
American pillwort	<i>Pilularia americana</i>	--	SPCO (S1S2)
Bitter Cress	<i>Cardamine flagellifera</i>	--	T (S2)
Blomquist leafy liverwort	<i>Lejeunea blomquistii</i>	--	SPCO (S1S2)
Blue Ridge St. John's-wort	<i>Hypericum mitchellianum</i>	--	T (S2)
Branching burreed	<i>Sparganium androcladum</i>	--	E (S1)
Branching whitlow-wort	<i>Draba ramosissima</i>	--	SPCO (S2)
Broadleaf bunchflower	<i>Melanthium latifolium</i>	--	E (S1S2)
Budding tortula	<i>Rhachithecium perpusillum</i>	--	SPCO (SH)
Buffalo clover	<i>Trifolium reflexum</i>	--	E (S1)
Butternut	<i>Juglans cinerea</i>	--	T (S3)
Chokecherry	<i>Prunus virginiana</i>	--	SPCO (S1)
Climbing fumitory	<i>Adlumia fungosa</i>	--	T (S2)
Creamflower tick-trefoil	<i>Desmodium ochroleucum</i>	--	E (S1)
Creekgrass	<i>Potamogeton epihydrus</i>	--	SPCO (S1S2)
Drooping bluegrass	<i>Poa saltuensis</i>	--	T (S1)
Dwarf filmy-fern	<i>Trichomanes petersii</i>	--	T (S2)
Eastern turkeybeard	<i>Xerophyllum asphodeloides</i>	--	T (S3)
Foxtail sedge	<i>Carex alopecoidea</i>	--	SPCO (SH)
Fraser's sedge	<i>Cymophyllus fraserianus</i>	--	SPCO (S3)
Fringed black bindweed	<i>Polygonum cilinode</i>	--	T (S1S2)
Hairy false gromwell	<i>Onosmodium hispidissimum</i>	--	E (S1)
Hot porella	<i>Porella gracillima</i>	--	E (S1)
Large-leaf pondweed	<i>Potamogeton amplifolius</i>	--	T (S1)
Leather-flower	<i>Clematis glaucophylla</i>	--	E (S1)
Liverwort	<i>Lophocolea appalachiana</i>	--	SPCO (S1)
Liverwort	<i>Porella wataugensis</i>	--	T (S1S2)
Liverwort	<i>Radula voluta</i>	--	SPCO (S2)
Longleaf stitchwort	<i>Stellaria longifolia</i>	--	E (S1)
Marsh bellflower	<i>Campanula aparinoides</i>	--	SPCO (S2)
Marsh pea	<i>Lathyrus palustris</i>	--	SPCO (S1)
Mountain honeysuckle	<i>Lonicera dioica</i>	--	SPCO (S2)
Mountain wavy-leaf moss	<i>Plagiomnium carolinianum</i>	--	SPCO (S1)
Naked-stem sunflower	<i>Helianthus occidentalis</i>	--	SPCO (S2)

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Common Name	Scientific Name	Status ¹	
		Federal	State (Rank)
Pale green orchid	<i>Platanthera flava</i> var. <i>herbiola</i>	--	T (S2)
Prairie ragwort	<i>Packera plattensis</i>	--	SPCO (S1)
Roundleaf serviceberry	<i>Amelanchier sanguinea</i>	--	T (S2)
Roundleaf water-cress	<i>Cardamine rotundifolia</i>	--	SPCO (S2S3)
Sedge	<i>Carex comosa</i>	--	T (S2)
Sharp's homaliadelphus	<i>Homaliadelphus sharpii</i>	--	E (S1)
Sharp's lejeunea	<i>Lejeunea sharpii</i>	--	E (S1S2)
Southern nodding trillium	<i>Trillium rugelii</i>	--	E (S2)
Spreading false-foxglove	<i>Aureolaria patula</i>	--	SPCO (S3)
Spreading rockcress	<i>Arabis patens</i>	--	E (S1)
Sweet pinesap	<i>Monotropsis odorata</i>	--	T (S2)
Sweetscent ladies'-tresses	<i>Spiranthes odorata</i>	--	E (S1)
Tall larkspur	<i>Delphinium exaltatum</i>	--	E (S2)
Tennessee pondweed	<i>Potamogeton tennesseensis</i>	--	T (S2)
Thread-leaved gerardia	<i>Agalinis setacea</i>	--	SPCO (SH)
Torrey's mountain mint	<i>Pycnanthemum torrei</i>	--	SPCO (S1)
Virginia chainfern	<i>Woodwardia virginica</i>	--	SPCO (S2)
Virginia spiraea	<i>Spiraea virginiana</i>	LT	E (S2)
Western false gromwell	<i>Onosmodium molle</i> ssp. <i>occidentale</i>	--	T (S1S2)
Yellow water-crowfoot	<i>Ranunculus flabellaris</i>	--	T (S2)

¹**Federal status abbreviations:** LE = Listed endangered, LT = Listed threatened; PS = Partial status; C = Candidate; DM = Recovered, delisted, and being monitored

State status abbreviations: E = Endangered; T = Threatened; D = In need of management; NOST = No status; SPCO= Special concern; TRKD = Tracked by state natural heritage program; S-CE = Special concern - Commercially exploited

State rank abbreviations: S1 = Critically imperiled, often with five or fewer occurrences, S2 =Imperiled, often with <20 occurrences; S3 = Rare or uncommon, often with <80 occurrences; S4 = Widespread, abundant, and apparently secure within the state, but with cause for long-term concern; SH= Of historical occurrence in Tennessee, e.g. formally part of the established biota, with the expectation that it may be rediscovered; SX = Believed to be extirpated from the state; S#S# = Denotes a range of ranks because the exact rarity of the element is uncertain (e.g., S1S2); S#B = Breeds in Tennessee; S#N = Occurs in Tennessee in a non-breeding status

Source: TVA 2016a

In order to determine which of the species listed in each county are known to occur in the general vicinity of the reservoir, a more refined database search was conducted. Database searches are based on the following criteria: (1) distance, (2) element occurrence rank values, and (3) species or type of element present. Accordingly, plants are assessed within a 5-mile radius, aquatic species within a 10-mile radius, and terrestrial species within a 3-mile radius.

For information on threatened and endangered species and the potential impacts of the draft RLMP, see Volume I, Section 3.7.

2.2.5.1 Plants

Reviews of the TVA Natural Heritage database indicated there are no threatened or endangered plant species known to occur within the TVA parcels of Fort Loudoun Reservoir. Within the surrounding counties, the only federally listed species is Virginia spiraea, which is also listed by the State of Tennessee as endangered. Virginia spiraea is not known to occur within 5 miles of Fort Loudoun Reservoir. Additionally, there are 34 state-listed threatened or endangered species and 22 additional species listed as species of concern. Of these plants, 17 exist within 5 miles of the reservoir. These species and their habitat requirements are identified in Table 2-9.

Table 2-9. Habitat Requirements for Plant Species of Conservation Concern within 5 Miles of Fort Loudoun Reservoir

Common Name	Habitat Requirements	Suitable Habitat Present
American funaria moss	On soil in grassy calcareous habitat ⁵	Likely, however records are historic
American ginseng	Rich moist hardwood dominated woods under a closed canopy ⁵	Yes, known in woods adjacent to reservoir
Bitter cress	Seepages and streambanks ⁵	Likely, however records are historic.
Budding tortula	Grows on bark of elm, maple, oak, and walnut species ⁵	Likely, however records are historic
Hairy false gromwell	Well drained open areas including fallow fields and pastures ⁵	Likely, known to occur on a Wildlife Management Area
Liverwort (<i>Radula volute</i>)	Damp shaded rocks along streams. 1772-3609 feet elevation ⁵	Unlikely, elevation of project area too low and records are historic.
Marsh pea	Wet meadows and marshes ²	Likely, identified along Turkey Creek
Mountain honeysuckle	Woodland edges, thickets, open woodlands ²	Likely, along Tennessee river south of reservoir
Naked-stem sunflower	Open areas with sandy soil ⁴	Likely, known to occur in glades adjacent to reservoir
Prairie ragwort	Open riverbanks, barrens ³	Likely, however records are historic, population may have been impacted by impoundment
Sharp's homaliadelphus	Moss. Vertical surface of calcareous or dolomite bluffs ⁵	Likely, however records are historic.
Spreading false-foxglove	Limestone bluffs shaded by oaks. Oak root parasite ⁵	Likely, known to occur on bluffs surrounding the reservoir

Common Name	Habitat Requirements	Suitable Habitat Present
Spreading rockcress	Moist woods, limestone outcrops, shaded riverbanks ⁵	Likely, however records are historic.
Sweet pinesap	Mixed hardwood or evergreen forests ¹	Possible, records historic, presumed extirpated.
Sweetscent ladies' tresses	Swamps, marshes, prairies, riverbanks, ditches ¹	Likely, recorded near Turkey Creek
Torrey's mountain mint	Rich woods on rock, along roadsides, in thickets near streams. Usually on rocky soil ⁵	Yes, known from Turkey Creek. Record isolated and historic
Western false gromwell	Glades ³	Yes, near north end of reservoir

¹ Source: Flora of North America 1993

² Source: Lady Bird Johnson Wildflower Center 2013

³ Source: TDEC 2014

⁴ Source: Hilty 2015

⁵ Source: NatureServe 2016

2.2.5.2 Terrestrial Wildlife

Reviews of the TVA Natural Heritage database indicate that there are four federally listed threatened or endangered terrestrial species, four species that have a partial listing in parts of their range, one candidate species, and one deemed in need of management. In addition, there are eight state-listed threatened or endangered species in the counties surrounding Fort Loudoun Reservoir including those also listed federally (see Table 2-8). There are a total of 18 species deemed in need of management and five species being tracked by the Natural Heritage Program. There are records of 14 of these listed species within 3 miles of the reservoir. These species and their habitat requirements are described in Table 2-10. One species has been documented on a TVA parcel.

Table 2-10. Habitat Requirements for Wildlife Species of Conservation Concern within the 3 Miles of Fort Loudoun Reservoir

Common Name	Habitat Requirements	Suitable Habitat Present
Amphibians		
Berry Cave salamander	Aquatic, cave obligate, only known from four locations in the world ¹	Unlikely
Tennessee cave salamander	Aquatic, cave obligate ¹	Potential in caves on TVA parcels
Hellbender	Creeks and rivers ¹	Likely, Several records from downstream of Tellico Dam, one record near Ten Mile Creek and one historic record from within the reservoir
Birds		
Least bittern	Wetlands ¹	Likely
Virginia rail	Wetlands ¹	Likely

Common Name	Habitat Requirements	Suitable Habitat Present
Common barn-owl	Nesting: cliffs, hollow trees, buildings, open forests Foraging: dense grass fields including marshes ¹	Likely Three recorded nests in the 1970s outside of project area
King rail	Wetlands ¹	Likely
Sharp-shinned hawk	Forested areas ¹ . Uncommonly nests in Tennessee, more frequently seen during migration ²	Likely, one recorded nest in 1980 outside of project area
Peregrine falcon	Nesting: Ledges and opening of cliffs, bluffs, buildings, and occasionally trees. Foraging: Variety of open habitats including wetlands, fields, and lakeshores	Likely, one historical record from the bluffs along the Tennessee River. One 2015 record from TVA Towers in Knoxville Tennessee
Bald eagle	Forested areas near open water ¹ . In Tennessee, overwintering on reservoirs and large rivers ²	Yes, on Zone 7 parcel and within 660 feet of Zone 6 parcel. Known from multiple locations around the reservoir. One nest that has been active from 2005-2009 and one active since 2007
Mammals		
Southeastern shrew	Various habitats, appears to prefer moist-wet areas ¹	Likely, however nearby records are historic
Gray bat	Caves ¹	Likely. Six records of gray bats in the vicinity
Indiana bat	Caves and mature forests ¹	Likely
Northern long-eared bat	Caves and mature forests ¹	Likely

¹ Source: NatureServe 2016

² Source: Tennessee Wildlife Resources Agency (TWRA) 2016

2.2.5.2.1 Amphibians

Both the Berry Cave salamander and the Tennessee cave salamander have been observed within 3 miles of Fort Loudoun Reservoir. There are 105 caves within 3 miles of Fort Loudoun Reservoir, four of which are known to provide habitat for salamander species. Two caves are on TVA parcels and two more are within 150 feet of TVA parcels. These caves are not known to support the Berry Cave salamander or the Tennessee cave salamander.

The hellbender's habitat consists of streams and rivers. There are several records within three miles of the reservoir with the majority occurring downstream of Tellico Dam, and most of which are historical records. This species is no longer thought to occur in the main stem of the reservoir since the creation of Loudon and Tellico dams. No known occurrences have been recorded within TVA parcels; however, tributaries of the reservoir including creeks and streams have some potential to have habitat that would support this species.

2.2.5.2.2 Birds

The three wetland species, least bittern, Virginia rail, and the king rail, have all been observed in Acola marsh near the reservoir. There are no TVA-recorded observances of these species within the reservoir or within the parcels. However, due to the abundance of wetlands, there is the potential for suitable habitat within the project area.

Three occurrences of barn owl nests have been recorded within the vicinity of the reservoir. There have been no recorded occurrences of barn owls within the reservoir or TVA parcels. Due to the abundance of forests and hay/pasture land cover, there is likely suitable habitat for the barn owl within the reservoir.

Bald eagles have been observed foraging over Loudon Reservoir and documented nesting in larger trees along the reservoir. One bald eagle nest occurs on a TVA parcel that would be allocated to Zone 7 (Shoreline Access); the nest was active from at least 2005-2009. Another nest that has been active since 2007 occurs within 660 feet of a parcel that would be allocated to Zone 6 (Developed Recreation).

Peregrine falcons have been recorded nesting in bluffs along the Tennessee River as well as in urban areas near the reservoir. Nesting and foraging habitat is known to occur along the reservoir; however, no nests have been recorded in TVA parcels.

2.2.5.2.3 Mammals

Habitat that may support the southeastern shrew is present within the reservoir. However, records of this species around the reservoir have not been documented since 1961. Field surveys would be required to determine if the species is still present. Due to the presence of suitable habitat, it is possible that this species may be found on TVA parcels within Fort Loudoun Reservoir.

The gray bat is known to occur in the vicinity of the reservoir. There are 105 caves within the 3-mile radius of the reservoir (see Table 2-8). Two caves are located on TVA parcels, one of which is allocated to Zone 3 (Sensitive Resource Management), and the other is allocated to Zone 6 (Developed Shoreline Recreation). Neither of these caves are known hibernacula for gray bats. However, one cave with historical records of gray bat occurs roughly 135 feet from a TVA parcel zoned 6. Heavy human disturbance likely caused the bats to abandon this cave. Surveys of the caves on TVA property would be needed in order to determine if gray bats are using these caves. Due to the abundance of caves, it is likely that gray bats would be observed foraging over and around the project area.

No records of Indiana bats and northern long-eared bats have been documented along the Ft. Loudoun Reservoir. However, no surveys are known to have occurred along this reservoir to try to document these species. Roost trees and mist net captures of both species are known from Nantahala and Cherokee National Forests in Blount and Monroe counties. Mist net surveys have documented both species in northeastern Knox County, Anderson County and Roane County. The closest hibernaculum for either species occurs in Roane and Blount counties. Due to the presence of caves around the reservoir, and documented summer captures in nearby counties, presence of this species along the reservoir is possible. .

2.2.5.3 Aquatic Species

In the counties surrounding Fort Loudoun Reservoir, 37 state-listed species, 21 of which are also federally listed species (see Table 2-8). Within 10 miles of the reservoir, there are 23 federally listed species and 18 additional state-listed species (Table 2-11). There are no records of any listed species on TVA parcels, however there are records of 12 listed species within the reservoir.

Table 2-11. Habitat Requirements for Aquatic Species of Conservation Concern within 10 Miles of Fort Loudoun Reservoir

Common Name	Habitat Requirement	Suitable Habitat Present
Fish		
Ashy darter	Medium rivers, slow moving pools with gravel substrates ¹	Likely
Blotched chub	Shallow water of medium streams to small rivers with gravel, rubble, or bedrock substrate ¹	Somewhat likely
Blotchside logperch	Riffles and gravel runs of clear, small to medium rivers ¹	Somewhat likely
Blue sucker*	Large rivers and tributaries. Found in channels and flowing pools. Located in some impoundments ¹	Yes
Flame chub	Springs and spring fed streams ¹	Unlikely
Highfin carpsucker*	Pools and backwaters of creeks and rivers with gravel or sandy bottoms ¹	Yes
Lake sturgeon	Bottoms of large clean freshwater rivers and lakes ¹	Likely
Longhead darter	Boulder and cobble strewn flowing pools of large creeks and small to medium rivers ¹	Somewhat likely
Marbled darter	Rocky pools and runs of small to medium rivers ¹	Somewhat likely
Snail darter	Medium sized rivers in gravel and sandy runs ¹	Somewhat likely

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Common Name	Habitat Requirement	Suitable Habitat Present
Tangerine darter	Deep riffles and runs with large rubble in headwater tributaries ¹	Unlikely
Tennessee dace	Pools of spring fed headwaters ¹	Unlikely
Wounded darter	Fast rocky riffles of small to medium rivers ¹	Somewhat likely
Yellowfin madtom*	Slow pools of medium to large creeks and small rivers that are relatively unsilted ¹	Somewhat likely, record states possibly misidentified
Gastropod		
Anthony's river snail*	Cobble rubble substrate of large rivers ¹	Likely
Ornate rocksnail*	Large rivers, does not readily adapt to reservoirs ¹	Unlikely, record historic
Spiny riversnail*	Shallow shoals with a fast current ¹	Likely, record possibly historic
Mussel		
Birdwing pearl mussel	Small to medium rivers in riffles with sand/gravel substrate and moderate to fast current ¹	Somewhat likely
Cracking pearl mussel	Creeks to large rivers. In fast current it is found in sand/gravel/cobble substrate. In slow current, mud/sand substrates ¹	Somewhat likely
Cumberland moccasinshell	Small streams and headwaters in sand/gravel substrate ¹	Unlikely
Cumberland monkeyface*	Riffle and shoal areas of Headwater streams and big rivers. Requires clean fast flowing water ¹	Unlikely extirpated from Holston River system
Dromedary pearl mussel*	Riffles at sand and gravel shoals of moderate current rivers. In Tennessee, it is also found in deeper slower moving water ¹	Unlikely historic records
Fanshell	Medium to large streams, sometimes found in rivers with gravel substrate and strong current ¹	Somewhat likely
Fine-rayed pigtoe*	High gradient clear streams with firm cobble/gravel substrate ¹	Unlikely historic records
Green blossom pearl mussel	Fast flowing riffles or shoals with firm substrate ¹	Somewhat likely
Orange-foot pimpleback*	Riffles and shoals in medium to large rivers ¹	Historic records
Oyster mussel	Sand/Gravel substrates in swift currents of large creeks and rivers. Sometimes associated with <i>Justica americana</i> beds ¹	Likely
Pink mucket	Large river species associated with swift currents. May be able to reproduce in impoundments with flowing water ¹	Somewhat likely
Rainbow	Riffles along emergent vegetation beds	Somewhat likely

Common Name	Habitat Requirement	Suitable Habitat Present
	in moderate to strong current. Small to medium rivers, occasionally in lakes ¹	
Ring pink	Gravel and sandbars of large rivers ¹	Likely
Rough pigtoe	Medium to large rivers in sand/gravel/cobble shoals. Occasionally found in flats and muddy sand ¹	Likely
Sheepnose	Generally found in deep water mud/sand/gravel bottoms in large rivers with swift currents. Known to occur in upper Chickamauga reservoir below Watts Bar Dam ¹	Somewhat likely
Shiny pigtoe pearlymussel*	Shoals and riffles of small to medium rivers. Does not tolerate deep water or reservoirs ¹	Unlikely, historic records collection dates unknown
Smooth rabbitsfoot	Small to medium rivers with moderate to swift current ¹	Somewhat likely
Spectaclecase	In sheltered areas of large rivers ¹	Likely
Tan riffleshell	Headwaters. Riffle sand shoals in gravel substrate ¹	Unlikely
Tennessee clubshell	Creeks and rivers in shallow riffles and shoals composed of gravel or sand. Occasionally found in deep water habitat south of Watts Bar Dam ¹	Somewhat likely
Tennessee pigtoe	Riffle sand shoals over rocky substrate in shallow water of creeks and rivers ¹	Somewhat likely
Tubercled blossom pearlymussel*	Shallow riffles and shoals with sand/gravel substrate in creeks and medium rivers ¹	Unlikely, considered extinct in 1998
Turgid blossom pearlymussel	Clear unpolluted water of fast flowing streams ¹	Unlikely
Wavy-rayed lampmussel	Small to medium streams and rivers in riffles over rocky substrate ¹	Somewhat likely

¹ Source: NatureServe 2016

* Records within reservoir

2.2.6 Water Quality

TVA has improved tailwater water quality below many of its hydroelectric facilities. This has been accomplished by the establishment of the Reservoir Releases Improvement Program, which was begun officially in 1991 when the TVA Board approved a five-year plan to improve water releases from 16 dams by maintaining minimum flows and reaeration of dam discharges. Implementing minimum flows was accomplished via turbine pulses, and dissolved oxygen levels increased in a variety of ways (e.g., turbine venting, oxygen injection, and weir dams) (Higgins

and Brock 1999). These techniques helped to mimic more natural riverine conditions in TVA tailwaters.

Fort Loudoun Reservoir is a main stem storage reservoir with power generation, flood control, and navigation purposes. The Reservoir Releases Improvement Program included oxygen injection at the Fort Loudoun Reservoir to help meet the dissolved oxygen target concentration. The basic system consists of an oxygen supply facility and diffuser system for transferring the oxygen to the turbine intake water. As a result, the dissolved oxygen increased approximately 1 milligram per liter (Higgins and Brock 1999).

The Fort Loudoun Reservoir hydraulic residence time is 10 days and the mean depth is 24.9 feet. The most recent ratings for dissolved oxygen, chlorophyll, and sediment for Fort Loudoun Reservoir from TVA's Reservoir Ecological Health Ratings program are presented in Table 2-12.

High chlorophyll concentrations resulting in a poor rating have been a consistent issue on Fort Loudoun. Sediment quality has been rated fair at both the forebay and mid-reservoir locations because chlordane, polychlorinated biphenyls (PCBs) and/or zinc concentrations have been found to exceed suggested limits.

Table 2-12. Ecological Health Indicators at Fort Loudoun Reservoir – 2011

Monitoring Location	Dissolved Oxygen	Chlorophyll	Sediment
Forebay	Fair	Poor	Fair
Mid-reservoir	Good	Poor	Fair

Source: TVA 2016b

There are two approved total maximum daily loads (TMDLs) for Fort Loudoun Reservoir, one for siltation and habitat alteration and one for PCBs. Six other TMDLs have been developed for watershed streams addressing fecal coliform (First, Second, Third, Goose, Baker, Williams, and Fourth creeks), pathogens (Little River, Floyd and Cloyd creeks), PCBs (Little River), and pH (Great Smoky Mountains National Park) (TDEC 2016).

While water supply intakes and waste water discharges are regulated by the states under the National Pollutant Discharge Elimination System, TVA permits the actual intake and outfall structures under Section 26a of the TVA Act. The most recent state permit/water withdrawal registration data for water supply withdrawals and waste water discharges directly from or to the

reservoirs is provided in Table 2-13. This information does not include withdrawals or discharges in the watersheds.

Table 2-13. Direct Reservoir Average Daily Water Supply Withdrawals and Wastewater Discharges – 2016

2010 Water Withdrawal Volume (MGD)			2010 Wastewater Discharge Volume (MGD)		
Municipal	Industrial	Thermo-electric	Municipal	Industrial	Thermo-electric
52.66	0	0	50.07	0.02	0

Source: Pers. Comm., Gary Springston, TVA, August 2016

2.2.7 Wetlands

Wetlands are transitional ecosystems between terrestrial and aquatic communities, where saturation with water is the dominant factor in determining the types of plants and animals present. Wetlands are ecologically important because of their beneficial effect on water quality, their moderation of flow regimes by retaining and gradually releasing water, their value as wildlife habitat, and as areas of botanical diversity. Wetlands exist within and adjacent to TVA reservoirs and are influenced by surface water and groundwater connections to the water levels in these reservoirs. The presence of wetlands immediately on or adjacent to TVA reservoirs is related to the land use characteristics and development status of the shoreline. Lands supporting more intense shoreline development are typically noted as having a decrease in wetland features.

Emergent wetlands typically occur in a narrow elevation zone centered on the summer pool elevation and contain water for much of the growing season. Vegetation typically includes cattail, bulrush, arrowhead, and water plantain. Scrub-shrub wetlands are typically associated with reservoir shorelines and coves and are often transition zones between emergent and forested wetlands. The vegetation can include hardwood trees less than 15 feet tall, but are dominated by shrubs such as silky dogwood, red osier dogwood, buttonbush, alder, willow, and elderberry. Forested wetlands occur on lower-lying, undisturbed areas and along tributary streams on power generation sites. These areas are dominated by flood tolerant hardwood species such as oaks, maples, and ash.

Vegetated wetlands occur with greater frequency and size along the mainstem reservoirs and tailwaters, such as Fort Loudoun, than along the tributary reservoirs and tailwaters. This is due in part to the larger-sized watersheds of main stem reservoirs resulting in a greater volume of water; greater predictability of the annual hydrologic regime; shoreline and drawdown zone

topography (wider and flatter floodplains, riparian zones, and drawdown zones and large areas of shallow water); and larger sections of relatively still, shallow-water areas. Wetlands tend to be smaller and do not occur as frequently on tributary reservoirs because of the relatively steep drawdown zones, the rolling to steep topography of adjacent lands, shoreline disturbance caused by wave action, and the lower predictability and shorter duration of summer pool levels. Within main stem reservoirs, wetlands occur on flats between summer and winter pool elevations, on islands, along reservoir shorelines, in dewatering areas, in floodplains, on river terraces, along connecting rivers and streams, around springs and seeps, in natural depressions, in areas dammed by beaver, in and around constructed reservoirs and ponds (diked and/or excavated), and in additional areas that are isolated from other surface waters.

The information presented in this document is derived from the National Wetland Inventory database and supplemented with previous on-the-ground surveys done by TVA, including for the SMI EIS (TVA 1999). Field surveys were not performed for this RLMP to gather more up-to-date information regarding the types and locations of wetlands within the Fort Loudoun Reservoir. The only types of wetlands mapped within the Fort Loudoun Reservoir besides open water are emergent and forested (Table 2-14).

Table 2-14. Wetland Types within the Fort Loudoun Reservoir

Wetland Type	Acres
Emergent	1.7
Forested	4.6
Open Water	117.5
Total	123.8

Source: USFWS 2016

Some of the wetland areas within the reservoir are present in local, state, and federally managed areas including wildlife refuges, wildlife management areas, national forests, parks, and recreation areas and also TVA-designated sites, including small wild areas, habitat protection areas, and ecological study areas (Subsection 2.2.11).

2.2.8 Floodplains

The area encompassed by the RLMP extends from the lower limit of TVA's property, just below the Fort Loudoun Dam at approximate TRM 601.3, upstream to about French Broad River Mile 3.8 and Holston River Mile 3.1. Fort Loudoun Dam is located at TRM 602.3. The 100-year floodplain is the area that would be inundated by the 100-year flood (base flood).

While flood storage volume is not equivalent to floodplain area, it does reflect the overall benefit and value of each reservoir in providing flood abatement. The flood storage volume at Fort Loudoun Reservoir is 111,000 acre-feet (Volume 1, Table 3-1).

In Fort Loudoun Reservoir, the 100-year flood elevations for the Tennessee River vary from 816.0 feet msl at the Fort Loudoun Dam at TRM 602.3 to elevation 825.4 feet msl at TRM 652.02. The 500-year flood elevations vary from 817.0 feet msl at TRM 602.3 to 832.4 feet msl at TRM 652.02. On the French Broad River, 100- and 500-year flood elevations vary from 825.4 and 832.4 feet at the mouth to 829.7 and 838.0 feet at the upstream limit of TVA land rights at about Mile 3.8, respectively. On the Holston River, 100- and 500-year flood elevations vary from 825.4 and 832.4 at the mouth to 829.0 and 835.6 feet at the upstream limit of TVA land rights at about Mile 3.1, respectively.

Tabulations of the 100- and 500-year flood elevations are included in Volume I, Appendix D.

2.2.9 Air Quality

In accordance with the Clean Air Act Amendments of 1990, all counties that include parts of the Fort Loudoun Reservoir are designated with respect to compliance, or degree of noncompliance, with the National Ambient Air Quality Standards (NAAQS). The NAAQS have been established to protect the public health and welfare with respect to six pollutants: particulate matter, sulfur dioxide, carbon monoxide, ozone, nitrogen dioxide, and lead. An area with air quality better than the NAAQS is designated as “attainment;” an area with air quality worse than the NAAQS is designated as “non-attainment.” Blount, Knox and Loudon counties are considered in moderate nonattainment for Particulate Matter with particles less than 2.5 micrometers in aerodynamic diameter (PM_{2.5}) (2012 annual standards). Tennessee is expected to submit a re-designation request in the fall of October 2016 for these counties to be considered in attainment for all NAAQS. Near the Fort Loudoun Reservoir, the Great Smoky Mountains (approximately 9 miles away), Joyce Kilmer-Slickrock Wilderness (approximately 21 miles away) and the Linville Gorge Wilderness Area (approximately 105 miles away) are designated Prevention of Significant Deterioration Class I air quality areas and are afforded special protection. General information about air emissions and climate change are identified in Volume I.

Sources of air emissions within lands along the Fort Loudoun Reservoir include industrial development, public works projects, developed recreation sites, motorized watercraft (motor boats, jet skis), and other vehicle traffic. Lands that would be allocated to Zone 5 (Industrial) have the greatest potential to support uses that produce higher levels of air emissions. Major

sources of air emissions within Zone 5 include industrial and light manufacturing facilities, barges, trucks and personal vehicles, and barge terminals and operations.

Air emissions generated within Fort Loudoun Reservoir vary with type of activity/development. Currently, air emissions from uses on TVA lands on the Fort Loudoun Reservoir are low. Future projects that have the potential to affect ambient air quality would be planned in detail to minimize air emission impacts and would comply with Clean Air Act regulations.

For information on air quality and the potential impacts of the draft RLMP, see Volume I, Section 3.11.

2.2.10 Cultural and Historic Resources

Cultural resources include prehistoric and historic archaeological sites, districts, buildings, structures, and objects, as well as locations of important historic events that lack material evidence of those events. Cultural resources that are listed, or considered eligible for listing, on the National Register of Historic Places (NRHP) are called historic properties. To be considered an historic property, a cultural resource must possess both integrity and significance. A historic property's integrity is based on its location, design, setting, materials, workmanship, feeling, and association. The significance is established when historic properties meet at least one of the following criteria: (a) are associated with important historical events or are associated with the lives of significant historic persons; (b) embody distinctive characteristics of a type, period, or method of construction; (c) represent the work of a master, or have high artistic value; or (d) have yielded or may yield information important in history or prehistory (36 Code of Federal Regulations [CFR] Part 60.4).

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effects of their proposed undertakings on historic properties and provide the Advisory Council on Historic Preservation an opportunity to comment on those effects. TVA determined that the proposed Action Alternative is an "undertaking" as defined by the regulations under NHPA. Once an action is determined to be an undertaking, the regulations require agencies to consider whether the proposed activity has the potential to impact historic properties. If the undertaking is such an activity, then the agency must follow the following steps: (1) involve the appropriate consulting parties; (2) define the area of potential effects (APE); (3) identify historic properties in the APE; (4) evaluate possible effects of the undertaking on historic properties in the APE; and (5) resolve adverse effects (36 CFR § 800.4 through 800.13). An APE is defined as the "geographic area or areas within which the undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such

properties exist” (36 CFR § 800.16). Concerning cultural resources, the APE is taken as the affected environment for purposes of this EIS. TVA defined the APE to be the approximately 159.3-acre area where TVA is proposing in its draft RLMP (Alternative B) to change the current Zone allocations (Alternative A).

Section 106 of the NHPA requires federal agencies to consult with the respective State Historic Preservation Officer (SHPO) and Indian tribes when proposed federal actions could affect historic and cultural resources, including archaeological resources, which are also protected under the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act, in addition to the NHPA.

2.2.10.1 Archaeological Resources

The Fort Loudoun Reservoir region has been an area of human occupation for the last 12,000 years. This includes five broad cultural periods: Paleo-Indian (>12,000-8,000 BC), Archaic (8,000-1,600 BC), Woodland (1,600 BC-AD 1,000), Mississippian (AD 1,000-1,700), and Historic (AD 1,700-present). These divisions are based on stylistic changes in artifact types and technological and cultural adaptations. Prehistoric land use and settlement patterns vary during each period, but short- and long-term habitation sites are generally located on flood plains and alluvial terraces along rivers and tributaries. Specialized campsites tend to be located on older alluvial terraces and in the uplands. During the later Protohistoric/Historic period (sixteenth century) the area contained the towns and smaller settlements of the Overhill Cherokee (Schroedl 2009). The influx of European settlers into this region led to conflict with the Cherokee and the eventual ceding of Cherokee land to the United States under the Treaty of 1819. Both Knox and Blount Counties were founded in the 1790's and Loudon County was founded in 1870. The early economies of these counties were largely based on agriculture with later economic growth accelerating with the establishment of railroad transportation. The Civil War destroyed some of this early infrastructure and commercial development. Post-Civil War economic development was comparatively slow, but industrialization eventually spread through the counties. In addition to agricultural and industrial development, the creation of the TVA, the Great Smoky Mountains National Park, and educational institutions have significantly contributed to the development of these counties.

The earliest formal archaeological investigations in the region began long prior to the impoundment of Fort Loudoun Reservoir and were undertaken by Clarence B. Moore (1915) and Mark R. Harrington (1922). These early investigations were primarily concerned with prehistoric monumental architecture, caves, and large shell midden sites. Unlike other Works

Project Administration-era dam projects, the land to be impounded by Fort Loudoun Reservoir was not subjected to archaeological investigations prior to inundation. Much of what we know about the prehistoric cultures along Fort Loudoun Reservoir originate from the extensive excavations performed for the Tellico Reservoir Project which is also located in Blount County (Chapman 1985, Davis 1990, Kimball 1985). In recent decades, TVA land has been subjected to archaeological investigations in response to potential project impacts. The largest of these archaeological investigations focused on identifying all archaeological sites along an 11.8 mile section of shoreline (Gage 2005) and a 14 mile section of Fort Loudoun Reservoir shoreline (Ahlman et al. 2000). Other past archaeological surveys of Fort Loudoun Reservoir lands have varied in location and thoroughness due to evolving archaeological site identification standards. Not all of the lands involved in this land planning process have been surveyed. Moreover, many of the previously reported archaeological sites have not been assessed for their NRHP eligibility. Of the 159 acres of lands that TVA proposes to change land use allocations under the proposed RLMP (Alternative B), these limited archaeological surveys resulted in the identification of 13 archaeological sites.

2.2.10.2 Historic Structures

The acquisition of land for Fort Loudoun Reservoir resulted in the removal of many structures and other man-made features. The few structures that remain represent all historical periods including individual farmsteads or larger scale plantations, civic or religious sites such as churches, cemeteries or schools, and industrial sites such as mills. In addition, structures associated with the inception of TVA may have historic significance such as the Fort Loudoun Hydroelectric Project. TVA is currently in the process of nominating Fort Loudoun Dam and its associated facilities to the NRHP.

The presence of other historic structures on Fort Loudoun Reservoir cannot be ruled out until a historic structure inventory has been conducted as part of a project-specific environmental review (all projects that would occur on TVA land receive such a review as part of the NEPA and Section 106 processes). Furthermore, many historic structures remain on adjacent non-TVA land that may be indirectly impacted by activities on TVA land.

2.2.11 Natural Areas and Ecologically Significant Sites

Natural areas include managed areas, ecologically significant sites, and Nationwide Rivers Inventory (NRI) streams. Managed areas include lands held in public ownership that are managed by an entity (e.g., TVA, State of Tennessee, Loudon and Knox counties) to protect and maintain certain ecological and/or recreational features. A management plan or similar

document defines what types of activities are compatible with the intended use of the managed area. Ecologically significant sites are tracts of privately owned land either that are recognized by resource biologists as having significant environmental resources or identified tracts on TVA lands that are ecologically significant, but not specifically managed by TVA's Natural Areas Program. NRI streams are free-flowing segments of rivers recognized by the National Park Service as possessing outstanding natural or cultural values that may potentially qualify them as part of the National Wild and Scenic Rivers System.

The TVA Natural Heritage database indicates that there are 23 natural areas on or within TVA parcels along Fort Loudoun Reservoir. An additional 23 natural areas lie within 3 miles of Fort Loudoun Reservoir. The natural areas along Fort Loudoun Reservoir primarily include local and state parks. For more information on managed areas and sensitive ecological sites, see Volume I, Section 3.13 and Appendix D.

2.2.12 Aesthetics and Visual Resources

Fort Loudoun's visual resources are not unusually unique on a state, regional, or national level. The upper riverine portions are separated from backlying farmlands by strips of trees and miles of high clay banks that are continually being eroded by wave action. Occasionally, these shorelines are interrupted by creek embayments with dense aquatic plant growth, presenting a low marsh like character to the landscape. Downstream, the river portions of the reservoir become broadened by numerous emergent wetland embayments, providing a scenic middle ground to divide the lake user from the mainland.

The area surrounding the reservoir is primarily rural. The shoreline of the reservoir is comprised of a variety of land uses including forested areas, residential development, recreational areas, farmed areas and a relatively small amount of industrial and commercial uses primarily located in the vicinity of the larger cities. Near the dam, human-made structures along the reservoir are generally harmonious with the surrounding view. The boat docks are organized and low in stature, allowing the trees across the reservoir to be seen. Many boat houses and parking lots are also partially hidden in trees or behind grassy swales, reducing the impact of these structures on the surrounding landscape. Overall, this area is attractive, but constitutes more of an intrusion into a scenic environment than an area where one would travel to in order to experience an appealing view.

2.2.13 Noise

Sources of noise within lands along the Fort Loudoun Reservoir include that associated with industrial development, developed recreation sites, and project operations. Characteristics of noise emissions associated with common land uses are identified in Volume I of the EIS.

Lands that TVA proposes to allocate to Zone 5 (Industrial) have the greatest potential to support uses that produce higher levels of noise. The most common measurement of sound and environmental noise is the A-weighted decibel scale (dBA). This is a logarithmic scale that ranges from 0 dBA to about 140 dBA and approximates the range of human hearing. Common sources of noise within Zone 5 include heavy trucks; rail and barge operations; and industrial workplaces. Noise emission levels for these sources can range from 85 decibels (dBA) to 100 dBA (USDOI 2008). Lands that would be allocated to Zone 2 (Project Operations) also have the potential to generate noise, but typically to a lesser degree than industrial development. The primary source of noise from land allocated to Zone 2 are the Fort Loudoun Dam Reservation, including the dam and powerhouse, navigation lock and associated barge operations, access roads; and boat-launching ramp. Noise emission levels for these sources can range from 70 dBA to 100 dBA (USDOI 2008). Lands allocated to Zone 6 (Developed Recreation) also have the potential to generate noise, but typically to a lesser degree than industrial development. The magnitude of the noise level depends on the location of the facilities and the type and intensity of recreational use. Common sources of noise within Zone 6 include: motorized watercraft (motor boats, jet skis); and road traffic. Noise emission levels for Zone 6 uses can range from 40 dBA (very quiet) to 90 dBA (jet ski). Noise levels for motor boats and jet skis may also exhibit short elevated bursts of noise as a result of speed of the watercraft and other operational factors.

Under the proposed RLMP (Alternative B), TVA land that would be allocated to Zone 3 (Sensitive Resource Management), Zone 4 (Natural Resource Conservation) and Zone 7 (Shoreline Access) account for the approximately 29 percent of land uses at Fort Loudoun Reservoir. Such land uses generally do not create noise emissions that would have an effect on the ambient noise environment and reflect a general environment consisting of low noise levels. Approximately 71 percent of land along the reservoir would be allocated to zones that would support land uses with the potential for noise emissions (Zones 2, 5 and 6).

Noise from land uses varies with the type of development and would attenuate with distance from the source and as such, the noise level around the reservoir is relatively low. However, because 71 percent of the TVA-managed land is either in Zones 2, 5 or 6, the noise level could

be marginally higher in certain locations depending on the type and location of the development. Any future projects on parcels that have the potential to affect noise emissions would be planned in detail and may be expected to consist of both water-dependent facilities and other common as well as new developments as allowed per each land use zone.

2.2.14 Socioeconomics

2.2.14.1 Population and Economy

The population of the Fort Loudoun Reservoir area is described in Table 2-15. Knox County, which contains the city of Knoxville, has the highest population within the three county area with 440,732 persons which represents an increase of 4.4 percent since 2010. Loudon County has the lowest estimated population in 2015, less than half the population of the second largest county, Blount County. Projected growth rates are larger in the counties with smaller total populations. None of the counties are projected to experience decline in population from 2015 to 2020. Blount County is the only county with a lower percent change or projected growth rate than the state of Tennessee in any period between 2010 and 2020.

Table 2-15. Population and Percent Growth – Fort Loudoun Reservoir

Population	County			State
	Loudon	Blount	Knox	Tennessee
Population (2020 - Projection)	58,729	136,357	481,842	7,195,375
Population (2015 - Estimate)	51,130	127,253	451,324	6,600,299
Population (2014 - Estimate)	49,749	124,435	440,732	6,451,365
Population (2010)	48,556	123,010	432,226	6,346,105
Projected Growth (2015-2020)	14.9%	7.2%	6.8%	8.3%
Percent Change (2010-2015)	5.3%	3.4%	4.4%	3.9%
Percent Change (2010-2014)	2.5%	1.2%	2.0%	1.6%
Percent Rural (2010)	40.6%	32.6%	10.9	33.6%

Sources: USCB 2015 and USCB 2010a

The counties in the Fort Loudoun Reservoir area range from 10.9 percent rural in Knox County to 40.6 percent rural in Loudon County. None of the counties within the area have a rural majority population. Both Loudon and Blount counties have significantly larger rural populations when compared to Knox County, due to the lack of a large municipality, such as Knoxville. Only Loudon County contains a greater rural population than the state of Tennessee.

As presented in Table 2-16, from 2010 to 2014, the Fort Loudoun Reservoir area had an average unemployment rate of 5 percent. The state of Tennessee during that same period had

an unemployment rate of 6 percent. None of the counties in the area had an unemployment rate greater than the state. Employment within all three counties, as well as the state was largely concentrated in two sectors: Management and Business Science, and Arts and Sales and Office. The median household incomes for the three counties were \$60,062 for Loudon County, \$46,518 for Blount County, and \$47,543 for Knox County. Each of the counties had higher median household incomes than the state of Tennessee.

Table 2-16. Employment and Income, 2010-2014 – Fort Loudoun Reservoir

Employment and Income	County			State
	Loudon	Blount	Knox	Tennessee
Civilian Employed Population 16 Years and Over	19,811	54,795	211,194	2,835,895
Management and Business Science and Arts	31%	32%	40%	34%
Service Occupations	17%	18%	16%	17%
Sales and Office	23%	26%	27%	25%
Natural Resources, Construction, and Maintenance	11%	10%	7%	9%
Production, Transportation and Material Moving	18%	14%	10%	15%
Percent of Population > 16 years Unemployed	6%	5%	4%	6%
Median Household Income	\$60,062	\$46,518	\$47,543	\$44,621

Source: USCB 2010b

2.2.14.2 Environmental Justice

EO 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” formally requires Federal agencies to incorporate Environmental Justice as part of NEPA. Specifically, it directs them to address, as appropriate, any disproportionately high and adverse human health or environmental effects of their actions, programs, or policies on minority and low-income. Although TVA is not one of the agencies subject to this order, TVA routinely considers Environmental Justice impacts as part of the project decision-making process.

The minority population in the Fort Loudoun Reservoir area is significantly smaller than the state of Tennessee’s, ranging from 8.3 percent in Blount County to 17.1 percent in Knox County (Table 2-17). The percent of the population below the poverty level between 2010 and 2014 was 15.7 percent for Loudon County, 14.4 percent for Blount County, and 15.3 percent for Knox County. All of the counties poverty rates were less than the state of Tennessee at 17.8 percent of the population.

Table 2-17. Minority Population and Poverty, 2010-2014 – Fort Loudoun Reservoir

Minority Population and Poverty	County			State
	Loudon	Blount	Knox	Tennessee
Total Population	49,749	124,435	440,732	6,451,365
White Alone*	47,763	117,279	377,816	5,029,109
Black or African American Alone ¹	617	3,658	40,328	1,082,001
American Indian and Alaska Native Alone ¹	89	511	1,150	17,656
Asian Alone*	377	998	8,868	98,441
Native Hawaiian and Other Pacific Islander Alone ¹	23	8	140	3,256
Two or More Races	652	1,588	8,489	122,662
Hispanic or Latino ²	3,712	3,618	16,252	309,828
Percent Minority	11%	8.3%	17.1%	25.4%
Percent of Population Below Poverty Level	15.7%	14.4%	15.3%	17.8%

¹ Includes persons reporting only one race

² Hispanics may be of any race, so also are included in applicable race categories.

Source: USCB 2010b

2.3 The Future Management of Reservoir Lands

Varying types of land management or conservation techniques coupled with development could occur along Fort Loudoun Reservoir. The implementation of the NRP would drive the types of programs conducted on TVA lands set aside due to natural or sensitive resources. Business opportunity, overall economy, local incentives, and community planning practices are factors that could contribute to the types of industry locating or expanding along the reservoir.

Recreation demand is driven by population levels, recreation participation rates, changing preferences for different types of recreation, and innovations in recreation equipment. Lands set aside for residential shoreline access are based on the types of property rights conveyed by TVA upon sale of the property or established via TVA policy. The TVA lands managed by other federal, state, or local agencies would most likely continue to do so in a similar manner.

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 draft RLMP was developed by a team of land managers and technical experts from TVA, knowledgeable about the reservoir and its resources. The planning team proposed land use allocations by integrating public needs, environmental conditions, economic benefits, state and federal policies, and the original congressional intent of the Fort Loudoun Reservoir project. The process includes information from resource data, computer analysis, the public, other agencies, and knowledgeable TVA staff. This draft RLMP is consistent with the strategic direction of the NRP and the objectives of the CVLP. Furthermore, the categorization and management of TVA-owned shoreline access land along Fort Loudoun Reservoir tiers from the SMI EIS (TVA 1998).

The planning process is completed once TVA conducts an environmental review of the draft RLMP as well as reasonable alternatives, in compliance with NEPA. This process allows the public and intergovernmental partners to review TVA’s proposed allocations and provide input.

Table 3-1. Land Use Zone Definitions

Zone	Definition
<p>Zone 1 Non-TVA Shoreland</p>	<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>

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.

Zone	Definition
	<ul style="list-style-type: none"> • 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. <p>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.</p> <ul style="list-style-type: none"> • 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.
<p>Zone 4 Natural Resource Conservation</p>	<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 known to be 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 where sensitive resources are not known to be present or that support existing development.

Zone	Definition
<p>Zone 5 Industrial</p>	<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. <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 Developed 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

Zone	Definition
	<p>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.</p> <ul style="list-style-type: none"> • 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. 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. • 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.
<p>Zone 7 Shoreline Access</p>	<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 proposing parcel allocations, 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. No sensitive resources surveys were conducted on committed land. The need for field reviews for uncommitted parcels was determined based on data from the TVA Natural Heritage database. Land with identified sensitive resources was proposed to be placed in

Zone 3 (Sensitive Resource Management). The remaining parcels were proposed for allocations based on reservoir planning objectives and public input. Proposed management of each parcel was made by consensus among the TVA planning team. When developing the proposed RLMPs, the planning team identified proposed allocations and used the zone definitions listed above to reach consensus on the proposed allocations of the reservoir land.

In developing draft RLMPs, TVA proposes to allocate lands currently committed to a specific use to a zone compatible with that use unless there is an overriding need to change the use. 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 land rights (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. Possible reasons to change a committed land use would be to prevent or remedy ongoing adverse impacts resulting from the actions of a license or easement holder.

Approximately 922.8 acres (61.0 percent) of the TVA land surrounding Fort Loudoun Reservoir are committed due to existing agreements, TVA operations, or other public infrastructure projects. Agricultural licenses are not considered as committed uses because they are an interim use of TVA land.

Approximately 590.3 acres (39.0 percent) of the TVA land surrounding Fort Loudoun Reservoir are uncommitted. Technical specialists collected existing data on many uncommitted parcels to identify areas containing known sensitive resources. Representatives from various TVA organizations met to propose how these uncommitted lands should be allocated 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 Fort Loudoun Reservoir Goals and Objectives

The NRP established long-term land planning goals and objectives. While these goals and objectives were established to guide planning decisions across the Valley, these same goals and objectives can be applied when planning specific reservoirs.

Goal

TVA will strive to continue to balance shoreline development, recreational use, sensitive and natural resource management, industrial use and other land uses in a way that maintains the quality of life and other important values across the region.

Objectives

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.

- Identify land use zone allocations to optimize public benefit and balance competing demands for the use of public lands.
- 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.
- Provide a clear process by which TVA will respond to requests for use of TVA public land.
- Comply with federal regulations and executive orders.
- Enhance 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.
- Provide a mechanism that allows local, state, and federal infrastructure projects when the use is compatible with the zone allocation.

3.3 Parcel Allocations

TVA's land planning process (Section 3.1) along with the goals and objectives specific to Fort Loudoun Reservoir (Section 3.2) were used to develop this draft RLMP. Through this process, TVA proposes allocations for each reservoir parcel to one of the seven planning zones as indicated in Table 3-2.

Table 3-2. Summary of Proposed Land Use Allocations for Fort Loudoun Reservoir Land Management Plan (Alternative B)

Allocation Designation		Number of Parcels	Acres
Zone 2	Project Operations	30	477.2
Zone 3	Sensitive Resource Management	7	59.6
Zone 4	Natural Resource Conservation	23	317.4
Zone 5	Industrial	5	10.5
Zone 6	Developed Recreation	45	590.8
Zone 7	Shoreline Access	20	57.8
Total		130	1,513.3

Figure 3-1 represents the percent of land acreage on Fort Loudoun Reservoir that would be allocated to each land use zone under the draft RLMP (Alternative B of the EIS). A detailed description of each zone and the identification of the land zoned by each category is presented below.

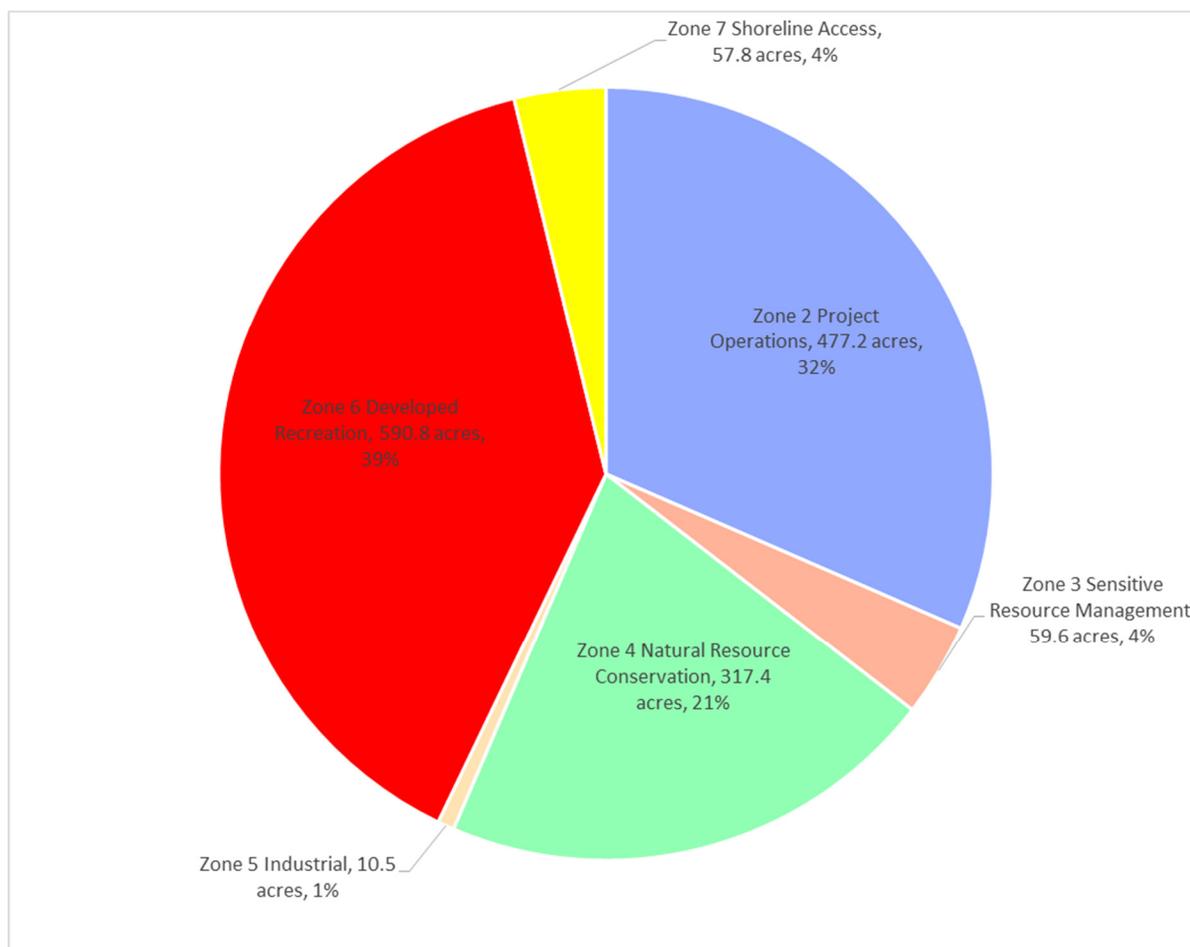


Figure 3-1. Percent of Fort Loudoun Reservoir Acreage Allocated by Zone

- Zone 2 (Project Operations). Zone 2 encompasses all TVA land currently used for TVA operations and public works projects. There are 477.2 acres (approximately 32 percent of TVA lands) allocated to Zone 2. The largest parcel allocated to Zone 2 is the Fort Loudoun Dam Reservation which contains the dam, dam powerhouse and associated access roads, transmission lines and substations; navigation lock and associated access roads and mooring cells; roads; public restrooms, shoreline fishing walkways on both river banks, and a boat-launching ramp.
- Zone 3 (Sensitive Resource Management). Zone 3 lands are 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. Approximately 4 percent (59.6 acres) of the TVA-managed land on Fort Loudoun reservoir is allocated to Zone 3. The parcels included in this allocation represent areas where high-quality wetland habitat, wildlife habitat, scenic buffers, or cultural and historic resources are present. The largest parcel allocated to Zone 3 consists of 36.9 acres and is commonly known as Salt Peter Bluff. This area offers a scenic buffer between the back-lying Bluff Point Subdivision and Fort Loudoun Reservoir.
- Zone 4 (Natural Resource Conservation). Lands allocated to Zone 4 are managed for the enhancement of natural resources for human use and appreciation. Appropriate activities in this zone include hunting, timber management to promote forest health, wildlife observation, and camping on undeveloped sites. Approximately 21 percent of TVA land on this reservoir is allocated to Zone 4. The two largest parcels in this land use group are Parcels 10 and 112. Parcel 10 is heavily forested and is very steep and impacted by invasive exotic plants. Parcel 112 consists of an island and peninsula and the island, known as Ish Creek Island, is likely the most heavily used area on the reservoir for informal camping on TVA lands.
- Zone 5 (Industrial). Zone 5 lands are managed for economic development including businesses in distribution/processing/assembly and light manufacturing. Less than 2 percent of TVA land (10.5 acres) around this reservoir is allocated to Zone 5. Lands allocated to this zone reflect existing industrial uses.

- Zone 6 (Developed Recreation). Lands allocated to Zone 6 are currently used for or planned for recreational purposes, such as public launching ramps or parks. For example, Parcel 5 comprises 49.6 acres, includes Fort Loudoun Marina, a commercial recreation area, and Lenoir City Park, a public municipal park. The marina is managed by a private entity. Lenoir City manages the park via a public recreation easement. Amenities at the park include a boat-launching ramp, picnic tables, pavilions, trails, fishing piers, play equipment, and restrooms. Parcel 6, located just east of Parcel 5 is currently undeveloped, however, land cover and topography make it suitable for a variety of recreational uses including camping, picnicking, and hiking/walking. In addition, water depths and slopes also make the parcel desirable for water access and harbor areas. Approximately 39 percent of TVA land on this reservoir is allocated to Zone 6.
- Zone 7 (Shoreline Access). Zone 7 lands comprise 57.8 acres (4 percent) of the TVA land allocated on Fort Loudoun Reservoir. Zone 7 lands are TVA-owned lands where Section 26a applications and other land use approvals for private shoreline alterations are considered. Requests for private shoreline alterations are considered on parcels identified in this zone where such use was previously considered, and/or where the back-lying landowner possesses deeded rights of access, and where the proposed use would not conflict with the interests of the public.

These results vary only slightly from the estimates for Fort Loudoun Reservoir contained in the CVLP. The CVLP anticipated that some parcels of land may be better allocated to different land use zones than those initially identified. As discussed in Volume I of the EIS, TVA proposes to update the target allocations of the CVLP based on the eight draft RLMPs and to recalibrate the CVLP with the periodic updates to the NRP. The preliminary results of the Fort Loudoun Reservoir land planning effort were included in the proposed changes to the CVLP. Table 3-3 compares the results of this land planning effort and the 2011 CVLP estimates for Fort Loudoun Reservoir.

Under the draft RLMP, TVA would allocate a greater number of lands to Zone 6 (Developed Recreation) than Zone 7 (Shoreline Access) than estimated in the 2011 CVLP.

Table 3-3. Draft Fort Loudoun Reservoir Land Management Plan (Alternative B) and 2011 Comprehensive Valleywide Land Plan Comparison

Allocation Designation		Draft Fort Loudoun Reservoir Land Management Plan	2011 Comprehensive Valleywide Land Plan
Zone 2	Project Operations	32%	33%
Zone 3	Sensitive Resource Management	4%	3%
Zone 4	Natural Resource Conservation	21%	18%
Zone 5	Industrial	<1%	<1%
Zone 6	Developed Recreation	39%	2%
Zone 7	Shoreline Access	4%	44%

Zone 6 (Developed Recreation)

The 2011 CVLP underestimated the amount of land designated for Zone 6 (Developed Recreation). The planning team reviewed existing recreation agreements, recreational trends, and the possibility of creating new recreation sites. This analysis resulted in more lands being placed in the Zone 6 category.

Zone 7 (Shoreline Access)

The 2011 CVLP overestimated the amount of TVA property encumbered with shoreline access rights.

Of the 1,513.2 acres on Fort Loudoun Reservoir, there are no proposed allocation changes to 1,251.3 acres (82.7 percent); all proposed allocation changes involve 261.9 acres (17.3 percent). Of the 261.9 acres, TVA would allocate 102.6 acres (39.2 percent) to reflect existing land use agreements or commitments. The remaining 159.3 acres (60.8 percent) involve proposed parcel allocations that are not based on existing land use agreements or commitments. See Appendix B for parcel allocation description tables.

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. Inquiries about or requests for the use of TVA land can be made to the TVA Public Land Information Center at 800-TVA-LAND or 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 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 NEPA and must conform to the requirements of other applicable environmental regulations and other legal authorities.

CHAPTER 4. PARCEL DESCRIPTIONS

This chapter describes the proposed land use determined to be most suitable for each parcel of TVA land as shown on the plan maps (Appendix A, Panels 1 through 5). The parcel descriptions include the acreage rounded to the nearest tenth and the proposed land use. Relevant data regarding the planned use are provided for each tract and include existing land uses, physical characteristics of the land, presence of existing private water use facilities, and any special considerations related to the future use. All existing private water use facilities with TVA permits are grandfathered, provided they are constructed in accordance with the plans approved by TVA.

Parcel 1 – (0.8 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This small parcel is located just downstream of Fort Loudoun Dam on the right descending bank of the Tennessee River. This parcel has two permanent easements to the Lenoir City Utility Board for utility operations. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed for cultural resources. Request for private water use facilities will not be considered.

Table 4-1. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	130-SE
TVA D-Stage Map Numbers	1
Stream Mile and Bank	Tennessee River Mile 601.3R
Land Use/Land Cover	Upland hardwoods open shoreline
Known Dispersed Recreation Opportunities	None
Current Agreements/Commitments	Permanent easements to Lenoir City Utility Board for utilities
Potential Projects	Survey for cultural resources
Potential Partners	Lenoir City Utility Board

Parcel 2 – (1.4 acres)

Draft RLMP Allocation: Zone 6, Developed Recreation

This parcel is located along the right descending bank below Fort Loudoun Dam. The area is locally known as Lane’s Landing Bait and Tackle and is managed by a private individual via a revocable license agreement. Amenities include picnic tables, transient boat mooring, and bait and tackle sales. The area can be accessed by Lee Drive. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-2. Parcel Information

Location Component	Parcel Specific Information
County, State	Loudon, Tennessee
TVA D-Stage Map Numbers	1
Stream Mile and Bank	Tennessee River Mile 601.4R

Parcel 3 – (386.1 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is the Fort Loudoun dam reservation and receives heavy public use. This parcel consists of two noncontiguous tracts of land that is located along both banks of the Tennessee River at river mile 602. Existing facility development includes the dam powerhouse and associated access roads, transmission lines and substations; navigation lock and associated access roads and mooring cells; roads; public restrooms, shoreline fishing walkways on both river banks, and a boat-launching ramp. Undisturbed areas in this parcel have a medium probability for the presence of cultural resources. There are known archaeological sites in and adjacent to this parcel, but it has not been surveyed for cultural resources. Request for private water use facilities will not be considered.

Table 4-3. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	130-SE and 138-SW
TVA D-Stage Map Numbers	1
Stream Mile and Bank	Tennessee River Mile 602B
Land Use/Land Cover	Upland hardwoods open shoreline
Known Dispersed Recreation Opportunities	Walking, jogging, bank fishing

Location Component and Public Involvement Opportunities	Parcel Specific Information
Current Agreements/Commitments	<ul style="list-style-type: none"> • Permanent easements to the State of Tennessee for roadways • Permanent easement to the Lenoir City Utility Board for utility operations • Permanent land use permit to Bellsouth for utilities
Potential Projects	Survey for cultural resources
Potential Partners	Lenoir City Utility Board

Parcel 4 – (7.8 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel consists of two noncontiguous tracts of land located north of Fort Loudoun dam reservation and contains a portion of the right-of-way (ROW) for Tennessee State Route (SR) 95. The intent of this parcel is to support the road ROWs. The road itself has a low probability for the presence of cultural resources. The parcel, however, covers areas that may not have been disturbed. These areas have a medium probability for the presence of cultural resources but it has not been surveyed. Request for private water use facilities will not be considered.

Table 4-4. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	130-SE
TVA D-Stage Map Numbers	1
Stream Mile and Bank	Tennessee River Mile 602R
Land Use/Land Cover	Upland hardwoods open shoreline
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Permanent easements to the State of Tennessee for roadways
Potential Projects	Survey for cultural resources
Potential Partners	State of Tennessee

Parcel 5 – (49.6 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel includes Fort Loudoun Marina, a commercial recreation area, and Lenoir City Park, a public municipal park. Fort Loudoun Marina LLC, via a commercial recreation easement (Tract

No. XFL-144RE), operates the marina. Amenities include dry and wet boat storage, fuel, boat repair services, boat-launching ramp, and restaurant.

Lenoir City manages the park via a public recreation easement (Tract No. XTFL-130RE). Amenities include boat-launching ramp, picnic tables, pavilions, trails, fishing piers, play equipment, and restrooms. City Park Drive provides access to both the marina and Lenoir City Park.

This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-5. Parcel Information

Location Component	Parcel Specific Information
County, State	Loudon, Tennessee
TVA D-Stage Map Numbers	1
Stream Mile and Bank	Tennessee River Mile 602.5R

Parcel 6 – (38.2 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel is currently undeveloped. This parcel is forested and has gentle topography making it suitable for a variety of recreational uses including camping, picnicking, and hiking/walking. In addition, water depths and slopes also make the parcel desirable for water access and harbor areas. The site is accessible via an existing 50-foot wide ROW that extends to Lakeview Road. A herony is known from this parcel. This parcel has a high probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-6. Parcel Information

Location Component	Parcel Specific Information
County, State	Loudon, Tennessee
TVA D-Stage Map Numbers	4
Stream Mile and Bank	Tennessee River Mile 602.5R

Parcel 7 – (0.3 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This small parcel is managed by TWRA via a public recreation permanent easement (Tract No. XTFL-17E). The site is currently undeveloped, and some shoreline erosion is occurring. The

parcel is accessible by River Chase Road. This parcel has a low to medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support recreation development purposes will be considered.

Table 4-7. Parcel Information

Location Component	Parcel Specific Information
County, State	Loudon, Tennessee
TVA D-Stage Map Numbers	4
Stream Mile and Bank	Tennessee River Mile 602.5R

Parcel 8 – (2.1 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the right descending bank of the Tennessee River in Fork Creek. This parcel boundary line is located along the centerline of the road, and the current land cover is deciduous forest. This parcel has a low to medium probability for the presence of cultural resources, but it has not been surveyed. Water use facilities have been constructed along the shoreline, and future requests for private water use facilities will be considered.

Table 4-8. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	4
Stream Mile and Bank	Tennessee River Mile 603R
Land Use/Land Cover	Deciduous forest
Fronts Former TVA Tract (s)	XFL-36, XFL-37, XFL-38, XFL-39, XFL-40, and XFL-41
Structure Profile	Centerline of road
Current Agreements/Commitments	Approved water use facilities

Parcel 9 – (0.2 acres)

Proposed RLMP Allocation: Zone 6, Development

This shoreline parcel is adjacent to former TVA property (Tract No. XTFL-2) that was transferred to the State of Tennessee for recreation development. The parcel is currently undeveloped but receives some informal public recreation use. Some shoreline erosion is occurring on this parcel. The parcel is accessible from Lakeshore Drive. This parcel has a low probability for the

presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-9. Parcel Information

Location Component	Parcel Specific Information
County, State	Loudon, Tennessee
TVA D-Stage Map Numbers	4
Stream Mile and Bank	Tennessee River Mile 602.5R

Parcel 10 – (35.7 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This parcel is commonly known as “Arrival Point” to the navigation industry due to the presence of a frequently used safety harbor on the western edge of this parcel. This land is heavily forested and is very steep, which lowers the accessibility for dispersed recreation opportunities. The backlying land is part of Point Harbor Subdivision. There is a history of vegetation removal and driveway encroachments, as well as other structural encroachments. This parcel is heavily impacted by invasive exotic plants, such as Amir Honeysuckle and privet. No legal road access exists. No federally or state-listed species are known to exist on this parcel. There is a medium probability for the presence of cultural resources; however, an archaeological survey has not been conducted. Requests for water use facilities will not be considered.

Table 4-10. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	3 and 4
Stream Mile and Bank	Tennessee River Mile 603R
Land Use/Land Cover	Pine/Hardwood Forest
Known Dispersed Recreation Opportunities	None Identified
Current Agreements/Commitments	None Identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA’s property boundaries • Systematic survey for historic properties
Potential Partners	None identified

Parcel 11 – (2.6 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along the right descending bank to the Tennessee River. The parcel is a navigation safety harbor. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed for historic properties. Request for private water use facilities will not be considered.

Table 4-11. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	10
Stream Mile and Bank	Tennessee River Mile 610.1R
Land Use/Land Cover	Upland hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Survey for historic properties
Potential Partners	None identified

Parcel 12 – (1.5 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This shoreline parcel is adjacent to former TVA property (Tract No. XTFL-1) that was transferred to the State of Tennessee for public recreation. The property has steep to moderate slopes and is currently undeveloped. It is adjacent to Twins Cove Drive but has no legal access. This parcel has a low to medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-12. Parcel Information

Location Component	Parcel Specific Information
County, State	Loudon, Tennessee
TVA D-Stage Map Numbers	3
Stream Mile and Bank	Tennessee River Mile 603.5R

Parcel 13 – (10.3 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel includes three separate shoreline segments and fronts former TVA property (Tract No. XFL-110). The property was sold in 1969 to the Knoxville Young Women’s Christian Association for group camp use and portions of the property (located above the 820-foot msl contour) were developed accordingly. The Knoxville Young Women’s Christian Association property has since been sold to a private party. The southernmost (downstream) segment is accessible from Beals Chapel Road, but no legal access exists to the other two segments of this parcel. This parcel has a low to medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support recreation development purposes aligning with deed restrictions will be considered.

Table 4-13. Parcel Information

Location Component	Parcel Specific Information
County, State	Loudon, Tennessee
TVA D-Stage Map Numbers	5
Stream Mile and Bank	Tennessee River Miles 607.4 to 608R

Parcel 14 – (1.1 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel is adjacent to former TVA property (Tract No. XTFL-5) transferred to the State of Tennessee for public recreation. Amenities include a paved boat-launching ramp and parking lot at this location. Lakeland Drive provides access to the area. This parcel has a low probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support recreation development purposes will be considered.

Table 4-14. Parcel Information

Location Component	Parcel Specific Information
County, State	Loudon, Tennessee
TVA D-Stage Map Numbers	8
Stream Mile and Bank	Tennessee River Mile 609.4R

Parcel 15 – (2.4 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This small, steep parcel is heavily forested with a pine and hardwood mixture. It is located adjacent to a boat-launching ramp operated and maintained by TWRA. No federally or state-listed species are known to exist. There is a medium probability for the presence of cultural resources; however, a survey for historic properties has not been conducted. Requests for water use facilities will not be considered.

Table 4-15. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	10
Stream Mile and Bank	Tennessee River Mile 609.4R
Land Use/Land Cover	Pines/Hardwoods
Known Dispersed Recreation Opportunities	Hiking
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for archaeological sites and historic structures
Potential Partners	None identified

Parcel 16 – (0.5 acre)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along the right descending bank to the Tennessee River and contains portions of the road ROWs for Lakeland Drive and Coulter Shoals Circle. The intent of this parcel is to support the road ROWs.

The road itself has a low probability for the presence of cultural resources. It is adjacent to a parcel that has a medium probability for the presence of cultural resources. Earth disturbing activities on the shoulder of this road could disturb cultural resources. Request for private water use facilities will not be considered.

Table 4-16. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138–SW
TVA D-Stage Map Numbers	10
Stream Mile and Bank	Tennessee River Mile 609.3R
Land Use/Land Cover	Road right-of-way and maintained lawn
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Permanent easement to Loudon County Highway Department for a roadway
Potential Projects	None identified
Potential Partners	Loudon County Highway Department

Parcel 17 – (3.0 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the right descending bank of the Tennessee River. This parcel fronts Coulter Shoals Subdivision and lies entirely below the 820-foot msl contour. The current land cover is maintained laws and upland hardwood forest. This parcel has a low probability for the presence of cultural resources, but it has not been adequately surveyed. Water use facilities have been constructed along the shoreline, and future requests for private water use facilities will be considered.

Table 4-17. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	138–SW
TVA D-Stage Map Numbers	8
Stream Mile and Bank	Tennessee River Mile 609.5R
Land Use/Land Cover	Maintained lawn and upland hardwood forest
Fronts Former TVA Tract (s)	XFL-49
Structure Profile	820–foot mean sea level
Current Agreements/Commitments	Approved water use facilities

Parcel 18 – (2.8 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along the right descending bank to the Tennessee River and is a navigation safety harbor. This parcel has a high probability for the presence of cultural

resources, but it has not been surveyed for cultural resources. Request for private water use facilities will not be considered.

Table 4-18. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	10
Stream Mile and Bank	Tennessee River Mile 610.1R
Land Use/Land Cover	Upland hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Survey for cultural resources
Potential Partners	None identified

Parcel 19 – (36.9 acres)

Proposed RLMP Allocation: Zone 3, Sensitive Resource Management

This parcel, commonly known as Salt Peter Bluff, offers a scenic buffer between the backlying Bluff Point Subdivision and Fort Loudoun Reservoir. The parcel is bounded by a safety harbor on the west end and is heavily forested. Rock outcrops exist centrally on the parcel. Legal road access does not exist. No federally or state-listed species are known to exist on this parcel. One cave that is not ranked as having special significance is documented as being present. There is a high probability for the presence of cultural resources; however, a survey for historical properties has not been conducted. Requests for water use facilities will not be considered.

Table 4-19. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox and Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	10
Stream Mile and Bank	Tennessee River Miles 610.2 to 610.5R
Land Use/Land Cover	Hardwoods
Known Dispersed Recreation Opportunities	Informal Hiking
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for historic properties
Potential Partners	None identified

Parcel 20 – (8.3 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This parcel contains two tracts of land at the mouth of Holder Branch: a larger linear tract on an easternmost peninsula and a smaller tract on the tip of the adjacent peninsula to the west. The smaller tract is covered with hardwoods, while the larger tract is covered with a mixture of hardwoods and pines. The shoreline of the larger tract is exhibiting more progressive erosion. This parcel is located in close proximity to Concord Park, which is one of the more highly used areas on the reservoir. No legal road access exists to either tract included in this parcel. No federally or state-listed species are known to exist. There is a medium probability for the presence of cultural resources on this tract; however, this parcel has not been surveyed for historic properties. Requests for water use facilities will not be considered.

Table 4-20. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	15
Stream Mile and Bank	Tennessee River Mile 615.8L
Land Use/Land Cover	Pines/Hardwoods
Known Dispersed Recreation Opportunities	Hiking and bank fishing
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA’s property boundaries • Consider stabilization of a portion of the shoreline • Systematic survey for archaeological sites and historic structures
Potential Partners	None identified

Parcel 21 – (65.5 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This long shoreline parcel is adjacent to former TVA property (Tract No. XTFL-75) that was transferred to Knox County for public recreation. Knox County has developed Concord Park at this location. A wide range of recreation amenities present include picnic tables and pavilions, boat-launching ramps, trails, fishing piers, play equipment, sports fields, swimming pool, and

swimming beach. Concord Marina, a commercial operations that includes wet slip boat storage, fuel and repair services, a boat-launching ramp, and a restaurant, is also located within the park. Concord Park is accessible from Northshore Drive.

This parcel has varying probabilities for the presence of cultural resources. Portions of this parcel intersect with a known archaeological site. Other portions appear to be highly eroded or developed. However, this parcel has not been adequately surveyed. Generally, the parcel has a medium probability for the presence of cultural resources. Requests for use of TVA lands and associated water-based structures to support recreation development purposes will be considered.

Table 4-21. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	17, 18, and 19
Stream Mile and Bank	Tennessee River Miles 616 to 617.5R

Parcel 22 – (0.7 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along the right descending bank of the Tennessee River and consists of five noncontiguous tracts of land. This parcel also contains portions of the road ROW for SR-332 and Northshore Drive. The intent of this parcel is to support the road ROW.

The road itself has a low probability for the presence of cultural resources. This parcel and adjacent areas have not been surveyed for cultural resources. Request for private water use facilities will not be considered.

Table 4-22. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	17 and 18
Stream Mile and Bank	Tennessee River Miles 618 to 618R
Land Use/Land Cover	Road right-of-way and maintained lawn
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Permanent easement to Knox County for a roadway
Potential Projects	Survey for historic properties
Potential Partners	Knox County

Parcel 23 – (5.6 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This parcel contains two tracts of land: a smaller tract to the west and a larger tract to the east. Both tracts are located along the southern side of the Norfolk Southern Railroad. The smaller, more westward tract is adjacent to Willow Cove Subdivision; the larger, more eastward tract is adjacent to Taylor’s Landing Subdivision. Both tracts are covered with pines and have no legal road access. The tract adjacent to Taylor’s Landing Subdivision has a history of unauthorized vegetation clearing. No federally or state-listed species are known to exist. There is a medium to low probability for the presence of cultural resources; however, a survey for historical properties has not been conducted. Requests for water use facilities will not be considered.

Table 4-23. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	16 and 17
Stream Mile and Bank	Little Turkey Creek Miles 0.8 – 1.7L
Land Use/Land Cover	Pines
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary • Systematic survey for historic properties
Potential Partners	None identified

Parcel 24 – (4.9 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel is managed via a revocable license agreement to the Town of Farragut for Anchor Park. Amenities include picnic tables, picnic pavilion, play equipment, trails, play fields, plat courts and restrooms. Anchor Park is accessible from Turkey Creek Road. This parcel has a low to medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support recreation development purposes will be considered.

Table 4-24. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	17
Stream Mile and Bank	Tennessee River Mile 616.5R

Parcel 25 – (1.0 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along the left descending bank of the Turkey Creek and is adjacent to the Lenoir City Waste Water Treatment Plant. This parcel serves as a vegetation buffer along the shoreline. This parcel has a low probability for cultural resources, but it has not been surveyed. Requests for private water use facilities will not be considered.

Table 4-25. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	17
Stream Mile and Bank	Turkey Creek Mile 0.5L
Land Use/Land Cover	Upland hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Survey for cultural resources
Potential Partners	City of Lenoir City

Parcel 26 – (4.3 acres)

Proposed RLMP Allocation: Zone 5, Industrial

This parcel consists of five non-contiguous tracts of land along the right descending bank of Sinking Creek and contains portions of a railroad ROW. The intent of this parcel is to support the railroad ROW. The railroad itself has a low probability for the presence of cultural resources. There are, however, portions of this parcel that intersect areas that have a medium probability of cultural resources and have not been surveyed. Requests for use of TVA lands and associated water-based structures to support industrial purposes will be considered.

Table 4-26. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138–SW and 138–SE
TVA D-Stage Map Numbers	18, 18-1, 18-2, and 19
Stream Mile and Bank	Sinking Creek Miles 0.3 to 1.3R
Land Use/Land Cover	Railroad right-of-way
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Permanent easement to Southern Railroad Company for a railroad

Parcel 27 – (0.6 acre)

Proposed RLMP Allocation: Zone 2, Project Operations

This small parcel is located along the right descending bank of the Sinking Creek and is managed via a permanent easement to the First Utility District of Knox County for utilities. The undisturbed portion of this parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for private water use facilities will not be considered.

Table 4-27. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138–SW
TVA D-Stage Map Numbers	18
Stream Mile and Bank	Sinking Creek Mile 0.4R
Land Use/Land Cover	Upland hardwoods and maintained lawn
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Permanent easement to First Utility District of Knox County for utilities
Potential Projects	Survey for cultural resources
Potential Partners	First Utility District of Knox County

Parcel 28 – (2.4 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This parcel consists of a thin strip of land around a pond on the north side of the Norfolk Southern Railroad and a small tract of land south of the railroad. The tract north of the railroad is

heavily impacted by mowing encroachments. No federally or state-listed species are known to exist. There is a medium probability for the presence of cultural resources; however, a survey for historical properties has not been conducted. Requests for water use facilities will not be considered.

Table 4-28. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	18 and 18-1
Stream Mile and Bank	Sinking Creek Miles 0.5 to 0.7R
Land Use/Land Cover	Grass and undergrowth
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Systematic survey for historic properties
Potential Partners	None identified

Parcel 29 – (0.3 acre)

Proposed RLMP Allocation: Zone 2, Project Operations

This small parcel is located along the right descending bank of the Sinking Creek and is adjacent to former TVA property (Tract No. XFL-65). This parcel is also adjacent to a First Utility District of Knox County pumping station. This parcel has a low probability for the presence of cultural resources, but it has not been surveyed. Request for private water use facilities will not be considered.

Table 4-29. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	18
Stream Mile and Bank	Sinking Creek Mile 1R
Land Use/Land Cover	Upland hardwoods and maintained lawn
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Permanent easement to First Utility District of Knox County for utilities
Potential Projects	None identified
Potential Partners	First Utility District of Knox County

Parcel 30 – (0.9 acre)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the right descending bank of the Tennessee River in the Sinking Creek embayment. This parcel lies entirely below the 815-foot msl contour, and the current land cover is maintained lawns. This parcel has a low probability for the presence of cultural resources, but it has not been surveyed. Water use facilities have been constructed along the shoreline, and future requests for private water use facilities will be considered.

Table 4-30. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138–SE and 138–SW
TVA D-Stage Map Numbers	18
Stream Mile and Bank	Tennessee River Mile 617.2R
Land Use/Land Cover	Maintained lawns
Fronts Former TVA Tract (s)	XFL-65
Structure Profile	820–foot mean sea level
Current Agreements/Commitments	Approved water use facilities

Parcel 31 – (0.3 acre)

Proposed RLMP Allocation: Zone 2, Project Operations

This small parcel is located along the right descending bank of the Sinking Creek and is managed via a permanent easement to the First Utility District of Knox County for utilities. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Request for private water use facilities will not be considered.

Table 4-31. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138–SW
TVA D-Stage Map Numbers	18
Stream Mile and Bank	Sinking Creek Mile 1.2R
Land Use/Land Cover	Upland hardwoods and maintained lawn
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Permanent easement to First Utility District of Knox County for Utilities
Potential Projects	Survey for cultural resources
Potential Partners	First Utility District of Knox County

Parcel 32 – (1.9 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel adjoins former TVA property (Tract No. XTFL-77) transferred to Knox County for public recreation. The land around this parcel is steep and wooded and it is currently undeveloped. Rodgers Island Lane provides access to the site. This parcel has a high probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-32. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	20
Stream Mile and Bank	Tennessee River Mile 618R

Parcel 33 – (10.5 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel fronts former TVA property (Tract Nos. XTFL-76 and XTFL-78) that was transferred to Knox County for public recreation. Carl Cowen Park borders the downstream portion of the parcel. Amenities at the park include a boat-launching ramp, picnic tables, picnic pavilions, trails, play equipment, fishing piers, and restrooms. The adjacent Admiral Farragut Park, situated just upstream, includes picnic tables, a pavilion, trails, and a play court. Both parks are located on Northshore Drive. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support recreation development purposes will be considered.

Table 4-33. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	23
Stream Mile and Bank	Tennessee River Miles 621.5 to 622.3R

Parcel 34 – (2.4 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the right descending bank of the Tennessee River fronting Historic Lowes Ferry Subdivision. This parcel lies entirely below the 820-foot msl contour, and the

current land cover is deciduous forest. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Water use facilities have been constructed along the shoreline, and future requests for private water use facilities will be considered. Restrictions to water use facilities may apply due to the Lowe’s Ferry light, anchor rod, deed restrictions, or other restrictions outlined in the associated environmental assessment for the subdivision development.

Table 4-34. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138–SE
TVA D-Stage Map Numbers	23
Stream Mile and Bank	Tennessee River Mile 622.5R
Land Use/Land Cover	Deciduous forest
Fronts Former TVA Tract (s)	XTFL-78
Structure Profile	Various
Current Agreements/Commitments	<ul style="list-style-type: none"> • Approved water use facilities • Environmental assessment

Parcel 34a – (0.5 acre)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This very small tract is located adjacent to Admiral’s Landing Subdivision. It is covered by undergrowth. No federally or state-listed species are known to exist. There is a low to medium probability for the presence of cultural resources on this tract; however, a survey for historical properties has not been conducted. Requests for water use facilities will not be considered.

Table 4-34a. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	23
Stream Mile and Bank	Tennessee River Mile 622.5R
Land Use/Land Cover	Undergrowth
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Systematic survey for historic properties
Potential Partners	None identified

Parcel 35 – (3.8 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel includes four noncontiguous tracts of land bordering former TVA property (Tract Nos. XTFL-79, XTFL-80, XTFL-81, and XTFL-82) that were transferred to Knox County for public recreation.

The upstream most part of the parcel is adjacent to XTFL-79 and is undeveloped with no legal access. However, the deep water around this section of the parcel, which is located in a protected cove, attracts boat fishing.

Proceeding upstream, the next parcel segment is adjacent to XTFL-80. The tract’s steep topography limits recreation development options but the property is accessible from a 30-foot-wide ROW. The portion of this parcel adjacent to XTFL-80 has a high probability for the presence of cultural resources.

Further upstream, the next section of the parcel adjoins Tract XTFL-81. Tract XTFL-81 has a gentle slope, is forested, and is accessible from Keller Bend Road. Knox County has designated this area as Keller Bend Park, and an informal trail and beach are located on the property. One cave is on this parcel and two other caves are close the parcel. One of the nearby caves (less than 200 feet from the parcel) has historical evidence of a gray bat colony and is used heavily by the public, which likely has contributed to the abandonment of the cave by roosting bats. The portion of this parcel adjacent to XTFL-81 has a medium probability for the presence of cultural resources, but has not been surveyed.

The upstream most segment of this parcel adjoins XTFL-82. This property is located near Fort Loudoun Yacht Club and is accessible from Lake Front Drive. No recreation facilities have been developed on this area. The portion of this parcel adjacent to XTFL-82 has a low to medium probability for the presence of cultural resources, but it has not been surveyed.

Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-35. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	23, 24, and 25
Stream Mile and Bank	Tennessee River Miles 623.3 to 626.8R

Parcel 35a – (0.8 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This small shoreline parcel is located south of St Germaine Drive and Admiral's Landing. The parcel consists mainly of shoreline backed by hardwoods. No federally or state-listed species are known to exist. There is a low probability for the presence of cultural resources on this tract; however, a survey for historical properties has not been conducted. Requests for water use facilities will not be considered.

Table 4-35a. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138–SE
TVA D-Stage Map Numbers	23
Stream Mile and Bank	Tennessee River Mile 622.6R
Land Use/Land Cover	Hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Survey for cultural resources
Potential Partners	None identified

Parcel 36 – (5.0 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel adjoins former TVA property (Tract No. XTFL-83) transferred to Knox County for public recreation. Most of this property is steep and wooded, and it is currently undeveloped. The northern end of the tract borders Badgett Road. There is no legal access to the southern segment of the property. There is a cave located less than 50 feet from this parcel. This parcel has a high probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-36. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	29
Stream Mile and Bank	Tennessee River Miles 632.2 to 632.7R

Parcel 37 – (3.1 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along the right descending bank to the Tennessee River. The parcel is a navigation safety harbor. This parcel has a high probability for the presence of cultural resources, but it has not been surveyed. Request for private water use facilities will not be considered.

Table 4-37. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-NE and 138-SE
TVA D-Stage Map Numbers	29
Stream Mile and Bank	Tennessee River Mile 632.4R
Land Use/Land Cover	Upland hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Survey for cultural resources
Potential Partners	None identified

Parcel 38 – (0.5 acre)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This small shoreline parcel is located south of Badgett Road. The parcel consists mainly of shoreline backed by a thin area of hardwoods. No federally or state-listed species are known to exist. There is a low probability for the presence of cultural resources on this tract; however, a survey for historical properties has not been conducted. Requests for water use facilities will not be considered.

Table 4-38. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-NE
TVA D-Stage Map Numbers	29
Stream Mile and Bank	Tennessee River Mile 633.2R
Land Use/Land Cover	Hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Systematic survey for historic properties
Potential Partners	None identified

Parcel 39 – (0.1 acre)

Proposed RLMP Allocation: Zone 2, Project Operations

This small parcel is located along the right descending bank of the Tennessee River and contains a portion of the road ROW for Badgett Road. The road itself has a low probability for the presence of cultural resources. It is adjacent to an area with a medium probability for the presence of cultural resources. Request for private water use facilities will not be considered.

Table 4-39. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-NE
TVA D-Stage Map Numbers	29
Stream Mile and Bank	Tennessee River Mile 632.4R
Land Use/Land Cover	Road right-of-way and upland hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	<ul style="list-style-type: none"> • Permanent easement to Knoxville Electric Power and Water Board for utilities • Permanent easement to Knox County, Tennessee for a roadway
Potential Projects	None identified
Potential Partners	<ul style="list-style-type: none"> • Knoxville Electric Power and Water Board • Knox County, Tennessee

Parcel 40 – (6.8 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel includes two noncontiguous tracts of land. The downstream tract is adjacent to former TVA property (Tract No. XTFL-84), and the upstream section is located adjacent to former TVA property (Tract No. XTFL-86). TVA transferred XTFL-84 and XTFL-86 to Knox County for public recreation. These tracts are currently undeveloped but their topography and strategic location on the reservoir make them well suited for future recreation development. Badgett Road provides access to both parcels. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-40. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	29 and 35
Stream Mile and Bank	Tennessee River Miles 632.8 to 633.2R

Parcel 41 – (1.8 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This shoreline parcel is located adjacent to former TVA property (Tract No. XTFL-85) that was transferred to Knox County for public recreation purposes. This parcel is currently undeveloped, and there is no known legal road access to the parcel. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-41. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	35
Stream Mile and Bank	Tennessee River Mile 634R

Parcel 41a – (0.7 acre)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This shoreline parcel is located adjacent to former TVA property (Tract No. XTFL-86) that was transferred to Knox County for public recreation purposes. In 1952, TVA, pursuant to Section 4(k)(a) of the TVA Act of 1933, as amended, transferred certain properties to Knox County subject to a restriction that the property be used for public recreation purposes.

In 2004, TVA, at the request of Knox County, modified the Tract No. XTFL-86 deed to allow the property to be sold for residential development. TVA also granted a private recreation easement (Tract No. XFL-136RE) to allow for residential access across this parcel and the construction and maintenance of water use facilities.

This parcel has a high probability for the presence of cultural resources; however, a survey for historical properties has not been conducted. Water use facilities have not been constructed along the shoreline, but future requests for private water use facilities will be considered.

Table 4-41a. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-NE
TVA D-Stage Map Numbers	35
Stream Mile and Bank	Tennessee River Mile 634R
Land Use/Land Cover	Deciduous forest
Fronts Former TVA Tract (s)	XTFL-86
Structure Profile	Varies
Current Agreements/Commitments	Private recreation easement for water use facilities

Parcel 41b – (0.3 acre)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This shoreline parcel is located adjacent to former TVA property (Tract No. XTFL-86) that was transferred to Knox County for public recreation purposes. In 1952, TVA, pursuant to Section 4(k)(a) of the TVA Act of 1933, as amended, transferred certain properties to Knox County subject to a restriction that the property be used for public recreation purposes.

In 2004, TVA, at the request of Knox County, modified the Tract No. XTFL-86 deed to allow the property to be sold for residential development. This segment of shoreline intentionally excluded from allowing the construction and maintenance of water use facilities.

This parcel has a high probability for the presence of cultural resources; however, a survey for historical properties has not been conducted. Water use facilities have not been constructed along the shoreline, and future requests for private water use facilities will not be considered.

Table 4-41b. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-NE
TVA D-Stage Map Numbers	35
Stream Mile and Bank	Tennessee River Mile 634.4R
Land Use/Land Cover	Upland hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	None identified
Potential Partners	None identified

Parcel 42 – (2.4 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along the right descending bank to the Tennessee River. The parcel is a navigation safety harbor. This parcel has a high probability for the presence of cultural resources, but it has not been surveyed. Request for private water use facilities will not be considered.

Table 4-42. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-NE
TVA D-Stage Map Numbers	35
Stream Mile and Bank	Tennessee River Mile 634.4R
Land Use/Land Cover	Upland hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Survey for cultural resources
Potential Partners	None identified

Parcel 43 – (1.7 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This shoreline parcel is located adjacent to former TVA property (Tract No. XTFL-87) that was transferred to Knox County for public recreation purposes. This parcel is steep and heavily forested, and is currently undeveloped, and there is no known legal road access to the parcel. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-43. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	36
Stream Mile and Bank	Tennessee River Mile 635.5R

Parcel 44 – (2.7 acres)

Proposed RLMP Allocation: Zone 3, Sensitive Resource Management

This small parcel is located on the tip of a peninsula just upstream from Duncan Boat Dock and lies below the maximum shoreline contour. It is covered with wetland vegetation. There is no legal road access. No federally or state-listed species are known to be present. This parcel has a high probability for the presence of cultural resources. Requests for water use facilities will not be considered.

Table 4-44. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-NW
TVA D-Stage Map Numbers	36
Stream Mile and Bank	Tennessee River Mile 635.7R
Land Use/Land Cover	Wetlands
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries
Potential Partners	None identified

Parcel 45 – (2.0 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is a designated safety harbor and can be utilized by commercial barges and recreational boats during adverse weather conditions or equipment malfunction. This parcel has a low probability for the presence of cultural resources, but it has not been surveyed. Future development of this tract will be restricted, and requests for private water use facilities will not be considered.

Table 4-45. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-NW
TVA D-Stage Map Numbers	36

Location Component and Public Involvement Opportunities	Parcel Specific Information
Stream Mile and Bank	Tennessee River Mile 637.5R
Land Use/Land Cover	Hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Systematic survey for cultural resources
Potential Partners	None identified

Parcel 46 – (4.7 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This shoreline parcel includes two noncontiguous tracts of land adjoining former TVA property (Tract Nos. XTFL-88 and XTFL-89) that were transferred to Knox County for public recreation.

The downstream segment borders Tract No. XTFL-88. This property is strategically located in an area that could meet future recreation needs. It has moderate slopes and is forested. The tract is located off Hauser Road.

The upstream parcel borders Tract No. XTFL-89. This property is also located in an urbanized area and could help meet developed recreation needs. It also has moderate slopes and is forested. The property does not currently have legal access.

This parcel has a medium probability for the presence of cultural resources, but has not been surveyed. Requests for use of TVA lands and associated water based structures to support developed recreation purposes will be considered.

Table 4-46. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	36
Stream Mile and Bank	Tennessee River Miles 637.5 to 638R

Parcel 47 – (1.7 acres)

Proposed RLMP Allocation: Zone 3, Sensitive Resource Management

This series of islands is known as the Lyons Island Complex. The islands are small and covered with pine and hardwoods. This island complex, along with the Looney Island Complex (Tract No. XFL-49PT), has been incorporated into a Wildlife Management Area managed by TWRA to allow for enforcement of waterfowl hunting regulations. No federally or state-listed species are

known to exist on this parcel. There is a high probability for the presence of cultural resources on this tract; however, a survey for historical properties has not been conducted. Requests for water use facilities will not be considered.

Table 4-47. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-NW
TVA D-Stage Map Numbers	43
Stream Mile and Bank	Tennessee River Mile 639.7
Land Use/Land Cover	Pines and Hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Tennessee Wildlife Resources Agency
Potential Projects	Systematic survey for historic properties
Potential Partners	None identified

Parcel 48 – (69.1 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel is Sequoyah Park and managed under a term easement to the City of Knoxville for public recreation. Amenities at Sequoyah Park include trails, boat-launching ramp, picnic facilities, play fields, and restrooms. The park is located off Cherokee Boulevard. Additional information about Sequoyah Park can be found on the City of Knoxville’s Web site:

http://knoxvilletn.gov/government/city_departments_offices/parks_and_recreation/

This parcel has a high probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-48. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	47, 48, 49, and 50
Stream Mile and Bank	Tennessee River Miles 641.5 to 643.4R

Parcel 49 – (8.7 acres)

Proposed RLMP Allocation: Zone 3, Sensitive Resource Management

This series of islands is known as the Looney Island Complex. The largest island in the complex is covered with dense vegetation, mostly pines and hardwoods. This island complex, along with the Lyons Island Complex (Tract No. XFL-47PT), has been incorporated into a Wildlife Management Area managed by TWRA to allow for enforcement of waterfowl hunting regulations. Although no federally or state-listed species are known to exist on this parcel, Looney Island does provide habitat for a wading bird colony that has housed up to one hundred Great Blue Heron nests at a time. There is a high probability for the presence of cultural resources on this tract; however, an archaeological survey has not been conducted. Requests for water use facilities will not be considered.

Table 4-49. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-NW
TVA D-Stage Map Numbers	45 and 49
Stream Mile and Bank	Tennessee River Mile 643
Land Use/Land Cover	Pines and hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Tennessee Wildlife Resources Agency
Potential Projects	Systematic survey for historic properties
Potential Partners	None identified

Parcel 50 – (3.6 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along the right descending bank to the Tennessee River. This parcel is managed via a permanent easement to the City of Knoxville for a waste water treatment plant. This parcel has a high probability for the presence of cultural resources, but it has not been surveyed. Request for private water use facilities will not be considered.

Table 4-50. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-NW
TVA D-Stage Map Numbers	57 and 58

Location Component and Public Involvement Opportunities	Parcel Specific Information
Stream Mile and Bank	Tennessee River Mile 645.9
Land Use/Land Cover	Industrial waste water treatment plant
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Permanent easement to the City of Knoxville for a waste water treatment plant
Potential Projects	Systematic survey for cultural resources
Potential Partners	City of Knoxville

Parcel 51 – (0.7 acre)

Proposed RLMP Allocation: Zone 5, Industrial

This parcel is located along the right descending bank of the Tennessee River and is adjacent to former TVA property (Tract No. XFL-103). The adjacent land owner is the Signal Mountain Concrete Company. The intent of this parcel is to support industrial land use and the railroad ROW. Most of this parcel has a low probability for undisturbed cultural resources. A portion, however, fronts a green space that has a high probability for the presence of cultural resources, but has not been surveyed. Requests for use of TVA lands and associated water-based structures to support industrial purposes will be considered.

Table 4-51. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-NW
TVA D-Stage Map Numbers	57 and 58
Stream Mile and Bank	Tennessee River Miles 645.8 to 646.2R
Land Use/Land Cover	Railroad right-of-way and industrial
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Approvals for barge terminals to the City of Knoxville and Signal Mountain Concrete Company

Parcel 52 – (0.2 acre)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel is managed via a revocable license agreement to the City of Knoxville for public recreation. Amenities include a boat-launching ramp and parking lot, and the area is located adjacent to Neyland Drive. This parcel has a high probability for cultural resources; however, a

survey for historical properties has not been conducted. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-52. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	59
Stream Mile and Bank	Tennessee River Mile 646.5R

Parcel 53 – (13.2 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along the right descending bank to the Tennessee River and contains a portion of the road ROW for SR-158 and Neyland Drive. The intent of this parcel is to support the road ROWs and existing utilities. The road itself has a low probability for the presence of cultural resources; however, a survey for historical properties has not been conducted.

Requests for private water use facilities will not be considered.

Table 4-53. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-NW
TVA D-Stage Map Numbers	57, 58, 59, 62, 63,64, and 65
Stream Mile and Bank	Tennessee River Miles 645.9 to 647.8R
Land Use/Land Cover	Road right-of-way
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	<ul style="list-style-type: none"> • Permanent easement to Colonial Pipeline Company for utilities • Revocable licenses to the City of Knoxville for recreation and utilities • Revocable license to the Knoxville Utilities Board for utilities • Permanent easements to the City of Knoxville for recreation, road right-of-way, and utilities
Potential Projects	None identified
Potential Partners	<ul style="list-style-type: none"> • City of Knoxville • Knoxville Utility Board • Colonial Pipeline Company

Parcel 54 – (3.5 acres)

Proposed RLMP Allocation: Zone 5, Industrial

This parcel is located along the right descending bank of the Tennessee River and contains a portion of the railroad ROW. This parcel is managed via a permanent easement to the Southern Railways Company for a railroad. The intent of this parcel is to support the railroad ROW. The railroad itself has a low probability for the presence of cultural resources. There are, however, portions of this parcel that are outside the railroad bed. These areas have a high probability for the presence of cultural resources, but have not been surveyed; however, a survey for historical properties has not been conducted. Requests for use of TVA lands and associated water-based structures to support industrial purposes will be considered.

Table 4-54. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147–NW
TVA D-Stage Map Numbers	64, 65, and 67
Stream Mile and Bank	Tennessee River Miles 647.2 to 648.3R
Land Use/Land Cover	Railroad right-of-way
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Permanent easement to the Southern Railways Company for a railroad

Parcel 55 – (9.9 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel includes two tracts of land managed by the City of Knoxville under recreation easement agreements (Tract Nos. XTFL-113RE and XTFL-126RE). This recreation area, known as Volunteer Landing, includes trails, a picnic pavilion, play equipment, and restrooms. A restaurant and a marina are also located within the park. Neyland Drive provides access to this area. This parcel has a medium to high probability for the presence of cultural resources, but has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-55. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	63, 64, and 65
Stream Mile and Bank	Tennessee River Miles 647 to 648.3R

Parcel 56 – (0.6 acre)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel is adjacent to former TVA property (Tract No. XTFL-95) that was transferred to Knox County for public recreation. The parcel is managed as part of Holston River Park. Amenities on the parcel consist of a boat-launching ramp and ramp parking lot. Holston Hills Road provides access to the park. This parcel has a medium to high probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-56. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	73
Stream Mile and Bank	Holston River Mile 1.5R

Parcel 57 – (4.1 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel is located adjacent to former TVA property (Tract No. XTFL-93) that was transferred to Knox County for public recreation. Development on this site includes a golf practice facility managed by the University of Tennessee. Knox County also has plans to develop a greenway on a portion of this parcel. This parcel has a high probability for the presence of cultural resources. A portion of this parcel has been surveyed for historic properties. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-57. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	45
Stream Mile and Bank	Tennessee River Mile 643.4L

Parcel 58 – (2.4 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel consists of two noncontiguous tracts of land located along the left descending bank to the Tennessee River. This parcel is adjacent to a former TVA tract that is now in the custody and control of the Department of the Navy. This parcel has a high probability for the presence of cultural resources, but it has not been surveyed. Request for private water use facilities will not be considered.

Table 4-58. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-NW
TVA D-Stage Map Numbers	45
Stream Mile and Bank	Tennessee River Mile 643.2L
Land Use/Land Cover	Maintained lawn and upland hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Appurtenant easement to the department of the Navy
Potential Projects	Survey for cultural resources
Potential Partners	Department of the Navy

Parcel 59 – (1.1 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This shoreline parcel is adjacent to former TVA property (Tract No. XTFL-94) that was transferred to Knox County for public recreation. Knox County has developed Marine Park at this location, and amenities include a boat ramp, parking lot and picnic tables. U.S. Highway 129 provides access to this recreation area.

Part of this parcel has a high probability for the presence of cultural resources. The remainder has a low probability for the presence of cultural resources. None of this parcel has been surveyed for historic properties. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-59. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	45
Stream Mile and Bank	Tennessee River Mile 643L

Parcel 60 – (2.5 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This shoreline parcel is adjacent to former TVA property (Tract No. XTFL-92) that was transferred to Knox County for public recreation. Maloney Road Park has been developed at this location and amenities include a picnic pavilion, trails, and a boat-launching ramp. Maloney Road provides access to the park. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-60. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	43
Stream Mile and Bank	Tennessee River Mile 638.5L

Parcel 61 – (2.3 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel consists of two noncontiguous tracts of land located along the left descending bank of the Tennessee River. This parcel lies entirely below the 820-foot msl contour, and the current land cover is deciduous forest. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Water use facilities have not been constructed along the shoreline, but future requests for private water use facilities will be considered.

Table 4-61. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-NW
TVA D-Stage Map Numbers	42
Stream Mile and Bank	Tennessee River Mile 638.5L
Land Use/Land Cover	Deciduous forest
Fronts Former TVA Tract (s)	XFL-83
Structure Profile	820-foot mean sea level
Current Agreements/Commitments	None

Parcel 62 – (1.9 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This parcel consists of two small tracts of land. The smallest portion lies in the back of a cove close to Maloney Road Park and is covered by pines and hardwoods. The larger portion is located at the mouth of the same cove and is in need of vegetation improvements. The larger portion is adjacent to the University of Tennessee Agricultural Experimentation Farm and most of this tracts shoreline has been stabilized. No federally or state-listed species are known to exist. There is a medium probability for the presence of cultural resources on this tract; however, a survey for historical properties has not been conducted. Requests for water use facilities will not be considered.

Table 4-62. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147–NW
TVA D-Stage Map Numbers	42
Stream Mile and Bank	Tennessee River Mile 638.5R
Land Use/Land Cover	Pines and hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Systematic survey for historic properties • Vegetation Management Plan
Potential Partners	None identified

Parcel 63 – (5.3 acres)

Proposed RLMP Allocation: Zone 3, Sensitive Resource Management

This small parcel is located at the entrance to the Knob Creek embayment, which houses I.C. King Park. This parcel is grass-covered due to agricultural testing associated with the University of Tennessee Agricultural Experimentation Farm adjacent to this parcel. Much of the shoreline has been stabilized with rock. No known federally or state-listed species exist on this parcel. Although this parcel has not been surveyed for historic properties, it has a high probability for the presence of cultural resources. Requests for private water use facilities will not be considered.

Table 4-63. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-NW
TVA D-Stage Map Numbers	42
Stream Mile and Bank	Tennessee River Mile 637.8R
Land Use/Land Cover	Grass
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for historic properties
Potential Partners	None identified

Parcel 64 – (4.9 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This parcel consists of three tracts (a northern peninsula, an island, and a southern peninsula) which are located in the same cove as I.C. King Park. The northern peninsula is mostly bare ground, the island is covered by pine trees, and the southern peninsula has a mixture of bare ground and pine/hardwood cover. The southern peninsula is located adjacent to Sky ranch Airport. A water intake for emergency fire hydrant use at the airport is located on the southern peninsula. This parcel receives a moderate to high amount of dispersed recreation, especially bank fishing. No legal road access exists to any portion of this parcel. No federally or state-listed species are known to exist. There is a medium probability for the presence of cultural resources on this tract; however, a survey for historical properties has not been conducted. Requests for water use facilities will not be considered.

Table 4-64. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-NW
TVA D-Stage Map Numbers	42
Stream Mile and Bank	Tennessee River Mile 637.7R
Land Use/Land Cover	Pines and hardwoods
Known Dispersed Recreation Opportunities	Bank fishing
Current Agreements/Commitments	None identified
Potential Projects	Systematic survey for historic properties
Potential Partners	None identified

Parcel 65 – (23.8 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel is located adjacent to former TVA property (Tract Nos. XTFL-90 and XTFL-91) transferred to Knox County for public recreation. This area has been developed as I. C. King Park. Amenities include a boat-launching ramp, bike and walking trails, a fishing pier, and picnic tables. The park is accessible from U.S. Highway 129. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-65. Parcel Information

Location Component	Parcel Specific Information
County, State	Knox, Tennessee
TVA D-Stage Map Numbers	42
Stream Mile and Bank	Tennessee River Mile 637.6L

Parcel 66 – (1.3 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel consists of two noncontiguous tracts of land located along the both banks of Knob Creek. This parcel contains a portion of the road ROW for U.S. Highway 129. The intent of this parcel is to support the road ROW. The road itself has a low probability for the presence of undisturbed cultural resources. Request for private water use facilities will not be considered.

Table 4-66. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-NW
TVA D-Stage Map Numbers	45
Stream Mile and Bank	Knob Creek Mile 0.5B
Land Use/Land Cover	Maintained lawn and upland hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	None identified
Potential Partners	Tennessee Department of Transportation

Parcel 67 – (1.0 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the left descending bank of the Tennessee River on the Little River embayment. It fronts Anchorage Subdivision and includes a community dock and several private water use facilities. This parcel lies entirely below the 820-foot msl contour, and the current land cover is maintained lawn. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Water use facilities have been constructed along the shoreline, and future requests for private water use facilities will be considered.

Table 4-67. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-SW
TVA D-Stage Map Numbers	37
Stream Mile and Bank	Little River Mile 2.5R
Land Use/Land Cover	Maintained lawn
Fronts Former TVA Tract (s)	XFL-31
Structure Profile	820-foot mean sea level
Current Agreements/Commitments	Approved water use facilities

Parcel 68 – (19.6 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel includes two commercial recreation areas operated on TVA lands via term easements and a segment that borders former TVA property (Tract No. XTFL-14) that was transferred to the State of Tennessee for public recreation.

Both commercial areas are located along the right bank of Stock Creek. Willow Point Marina is located on the downstream segments. Marina amenities include fuel and boat repair services, wet slip boat storage, a boat-launching ramp and a restaurant. Southlake RV Park, located upstream and on the opposite side of Maryville Pike, includes a campground and swimming pool.

The segment that borders Tract No. XTFL-14 is located along the left bank of Stock Creek. A public boat-launching ramp and parking lot are located on this property. Maryville Pike (SR-33) provides access to all of these areas. A bald eagle's nest that has been active since 2007 occurs within 660 feet of this parcel.

This parcel has not been surveyed for historic properties. Areas that have not been deeply disturbed by commercial development have a medium probability for the presence of cultural resources. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-68. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee Knox, Tennessee
TVA D-Stage Map Numbers	37 and 46
Stream Mile and Bank	Little River Mile 3.2R

Parcel 69 – (1.3 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel consists of two noncontiguous tracts of land located along the both banks of Stock Creek. This parcel contains a portion of the road ROW for SR-33. The intent of this parcel is to support the road ROW. The road itself has a low probability for the presence of cultural resources. Request for private water use facilities will not be considered.

Table 4-69. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Knox, Tennessee Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-SW
TVA D-Stage Map Numbers	46
Stream Mile and Bank	Stock Creek Mile 0.5B
Land Use/Land Cover	Maintained lawn and upland hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	None identified
Potential Partners	Tennessee Department of Transportation

Parcel 70 – (1.0 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel borders former TVA property (Tract No. XTFL-15) that was transferred to the State of Tennessee for public recreation. The State has developed a boat-launching ramp and parking lot at this location. Maryville Pike (SR-33) provides access to the area. This parcel has a low

probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-70. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	39
Stream Mile and Bank	Little River Mile 5.5R

Parcel 71 – (0.3 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This parcel is located along Little River and is mostly grass-covered. No federally or state-listed species are known to exist. There is a low to medium probability for the presence of cultural resources on this tract; a survey for historical properties has not been conducted. One unpermitted dock exists as a violation on this parcel; however, future requests for water use facilities will not be considered.

Table 4-71. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-SW
TVA D-Stage Map Numbers	39
Stream Mile and Bank	Little River Mile 4.6L
Land Use/Land Cover	Grass
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for historic properties
Potential Partners	None identified

Parcel 72 – (9.1 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel includes Little River Boat Ramp developed and managed by TVA. Bank fishing also occurs on this parcel. U.S. Highway 129 provides access to the area. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-72. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	37
Stream Mile and Bank	Little River Mile 3.7L

Parcel 73 – (2.5 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along the left descending bank of the Little River and contains a portion of the road ROW for U.S. Highway 129. The intent of this parcel is to support the road ROW. The road itself has a low probability for the presence of cultural resources. Request for private water use facilities will not be considered.

Table 4-73. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-SW
TVA D-Stage Map Numbers	37
Stream Mile and Bank	Little River Mile 3.8L
Land Use/Land Cover	Road right-of-way
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	<ul style="list-style-type: none"> • Permanent easement to the Tennessee Department of Transportation for a roadway • Revocable license to the City of Alcoa Utilities for utilities
Potential Projects	None identified
Potential Partners	<ul style="list-style-type: none"> • Tennessee Department of Transportation • City of Alcoa Utilities

Parcel 74 – (0.8 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the left descending bank of the Tennessee River on the Little River embayment. This parcel fronts River Trace Subdivision and lies entirely below the 820-foot msl contour. The current land cover is a mix of lawn and deciduous forest. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Water use facilities have been constructed along the shoreline, and future requests for private water use facilities will be considered.

Table 4-74. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	147–SW
TVA D-Stage Map Numbers	37
Stream Mile and Bank	Tennessee River Mile 635.5L
Land Use/Land Cover	Mix of lawn and deciduous forest
Fronts Former TVA Tract (s)	XFL-31
Structure Profile	820–foot mean sea level
Current Agreements/Commitments	Approved water use facilities

Parcel 75 – (23.0 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This large parcel is located along the left descending bank of the Little River and contains a small portion of the road ROW for SR-133. This parcel is known as Singleton Harbor and contains TVA administrative buildings and storage facilities. The intent of this parcel is to support TVA operations and the road ROW. This parcel has a medium to high probability for the presence of cultural resources. Only a portion of this parcel has been surveyed for cultural resources. Request for private water use facilities will not be considered.

Table 4-75. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	147–SW
TVA D-Stage Map Numbers	31 and 37
Stream Mile and Bank	Little River Mile 1.2L
Land Use/Land Cover	Road right-o- way

Location Component and Public Involvement Opportunities	Parcel Specific Information
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Permanent easement to Blount County, Tennessee for a roadway
Potential Projects	Survey for cultural resources
Potential Partners	Blount County, Tennessee

Parcel 76 – (4.3 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel includes two small noncontiguous tracts of land located along the Polecat Branch embayment. This recreation area, locally known as Singleton, includes TVA-developed boat-launching ramp located along the right descending bank of the embayment. Along the left descending bank of the embayment, Blount County has developed picnic tables and fishing piers. The parcel is managed by Blount County under a revocable license agreement. Topside Road provides access to both portions of this parcel. This parcel has a low to medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation will be considered.

Table 4-76. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	37
Stream Mile and Bank	Little River Mile 1.3L

Parcel 77 – (0.7 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This small parcel is located along both banks of Polecat Branch and contains a portion of the road ROW for SR-133. The intent of this parcel is to support the road ROW. The road itself has a low probability for the presence of cultural resources. Request for private water use facilities will not be considered.

Table 4-77. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-SW
TVA D-Stage Map Numbers	31
Stream Mile and Bank	Little River Mile 3.8B
Land Use/Land Cover	Road right-of-way
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Permanent easement to Blount County, Tennessee for roadway
Potential Projects	None identified
Potential Partners	Blount County, Tennessee

Parcel 78 – (0.4 acres)

Proposed RLMP Allocation: Zone 5, Industrial

This parcel is located along the right descending bank of Polecat Branch and is adjacent to former TVA property (Tract No. XFL-133). The backlying property owner is S&ME engineering. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support industrial purposes will be considered.

Table 4-78. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-SW
TVA D-Stage Map Numbers	31
Stream Mile and Bank	Polecat Branch Mile 0.4R
Land Use/Land Cover	Upland hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified

Parcel 79 – (19.0 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This relatively large parcel is located at the mouth of Polecat Creek, also known as the Singleton Area. Dense hardwood/pine stands cover this parcel. No federally or state-listed species are known to exist on this parcel. There is a medium to high probability for the presence

of cultural resources; however, a survey for historical properties has not been conducted. Requests for water use facilities will not be considered.

Table 4-79. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-SW
TVA D-Stage Map Numbers	37
Stream Mile and Bank	Little River Mile 1.1L
Land Use/Land Cover	Pines and hardwoods
Known Dispersed Recreation Opportunities	Hiking and bank fishing
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for archaeological sites and historic structures
Potential Partners	None identified

Parcel 80 – (1.5 acres)

Proposed RLMP Allocation: Zone 3, Sensitive Resource Management

This parcel is identified as having a need for management of sensitive resources due to the presence of a historic cemetery. It is totally encompassed by Plan Tract No. XFL-79PT and has no shoreline footage. No federally or state-listed species are known to be present on this parcel. Although no survey for historical properties has been conducted, there is a high probability for the presence of cultural resources. Requests for water use facilities will not be considered.

Table 4-80. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	147-SW
TVA D-Stage Map Numbers	37
Stream Mile and Bank	Little River Mile 1.1L
Land Use/Land Cover	Maintained cemetery
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Systematic survey for historic properties
Potential Partners	None identified

Parcel 81 – (9.0 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel consists of three noncontiguous tracts of land located along the left descending bank of Tennessee River. The current land cover is deciduous forest. One bald eagle nest is known on this parcel; the activity status has not been surveyed in recent years. This parcel has a medium to high probability for the presence of cultural resources; however, only a portion of the parcel has been surveyed. Water use facilities have not been constructed along the shoreline, and future requests for private water use facilities will be considered.

Table 4-81. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	147–NW
TVA D-Stage Map Numbers	33
Stream Mile and Bank	Tennessee River Mile 634.6R
Land Use/Land Cover	Deciduous forest
Fronts Former TVA Tract (s)	XFL-87 and XTFL-13
Structure Profile	Varies
Current Agreements/Commitments	<ul style="list-style-type: none"> • Environmental assessment previously completed • No approved water use facilities

Parcel 82 – (21.7 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This very steep parcel is heavily forested by hardwoods and has at least one known dispersed recreation site. The backlying property is residential. This tract was formerly leased to Blount County, Tennessee (Tract No. XTFL-24L); however, Blount County did not express an interest in the future of the property. This parcel has no legal road access. No federally or state-listed species are known to exist on this parcel, yet one cave that has not been surveyed recently for listed species does occur on this parcel. There is a medium probability for the presence of cultural resources on this tract; however, a historic properties survey has not been conducted. Requests for water use facilities will not be considered.

Table 4-82. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	33
Stream Mile and Bank	Tennessee River Mile 633.4 to 633.7L
Land Use/Land Cover	Hardwoods
Known Dispersed Recreation Opportunities	Informal hiking, camping, and bank fishing
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for archaeological sites and historic structures
Potential Partners	None identified

Parcel 83 – (0.2 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the left descending bank of the Tennessee River. This parcel lies entirely below the 820-foot msl contour, and the current land cover is upland hardwood forest. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. A water use facility has been constructed along the shoreline, and future requests for private water use facilities will be considered.

Table 4-83. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	33
Stream Mile and Bank	Tennessee River Mile 631.4L
Land Use/Land Cover	Upland hardwood forest
Fronts Former TVA Tract (s)	XFL-86
Structure Profile	820-foot mean sea level
Current Agreements/Commitments	Approved water use facility

Parcel 84 – (9.9 acres)*Proposed RLMP Allocation: Zone 4, Natural Resource Conservation*

This parcel was transferred to the State of Tennessee; then, the State of Tennessee transferred it back to TVA in 1971. It is a linear, narrow strip of property along the shoreline. A section of the shoreline was critically eroding at a previous time; however, it has since been stabilized with riprap. The land behind the stabilized shoreline is virtually barren with little to no tree cover and is residential in nature. The remainder of this parcel is very steep and is covered by a dense mix of hardwoods and pines. The backlying property of this area has largely remained forested; however, some backlying property has been cleared for residential development. There is no legal road access to this parcel. No federally or state-listed species are known to exist. A portion of this parcel has a medium probability for the presence of cultural resources. Other portions, due to steep grade, have a low probability for the presence of cultural resources. The parcel has not been surveyed for historic properties. Requests for water use facilities will not be considered.

Table 4-84. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	33
Stream Mile and Bank	Tennessee River Mile 630.9 to 631.4R
Land Use/Land Cover	Bare, pines, and hardwoods
Known Dispersed Recreation Opportunities	Hiking
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for archaeological sites and historic structures
Potential Partners	None identified

Parcel 85 – (3.7 acres)*Proposed RLMP Allocation: Zone 6, Developed Recreation*

This shoreline parcel borders former TVA property (Tract No. XTFL-11) that was transferred to the State of Tennessee for public recreation. A boat-launching ramp has been developed on the

parcel. Topside Road provides access to the area. Undeveloped portions of this parcel have a medium to high probability for the presence of cultural resources. This parcel has not been surveyed for historic properties. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-85. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	31
Stream Mile and Bank	Tennessee River Mile 629.7L

Parcel 86 – (1.3 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This small parcel is located along both banks of George Creek and contains a portion of the road ROW for SR-333. The intent of this parcel is to support the road ROW. The road itself has a low probability for the presence of cultural resources. There is a portion of this parcel, however, that has a high probability for the presence of cultural resources, but has not been surveyed. Requests for private water use facilities will not be considered.

Table 4-86. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	31
Stream Mile and Bank	George Creek Mile 0.5B
Land Use/Land Cover	Road right-of-way
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Systematic survey for historic properties
Potential Partners	Tennessee Department of Transportation

Parcel 87 – (0.6 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the left descending bank of the Tennessee River on the George Creek embayment. This parcel lies entirely below the 820-foot msl contour, and the current land cover is upland hardwood forest. This parcel has a medium probability for the presence of

cultural resources, but it has not been surveyed. No water use facilities have been constructed along the shoreline, but future requests for private water use facilities will be considered.

Table 4-87. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	31
Stream Mile and Bank	George Creek, River Mile 0.5L
Land Use/Land Cover	Upland hardwood forest
Fronts Former TVA Tract (s)	XFL-84
Structure Profile	820-foot mean sea level
Current Agreements/Commitments	No approved water use facilities

Parcel 88 – (1.9 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along the left descending bank of the Tennessee River. The intent of this parcel is to provide a navigational safety harbor. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Request for private water use facilities will not be considered.

Table 4-88. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	27
Stream Mile and Bank	Tennessee River Mile 629.1L
Land Use/Land Cover	Upland Hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Survey for cultural resources
Potential Partners	None identified

Parcel 89 – (2.0 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This shoreline parcel borders former TVA property (Tract No. XTFL-10) that was transferred to the State of Tennessee for public recreation. The site is undeveloped and does not currently

have legal access. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-89. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	27
Stream Mile and Bank	Tennessee River Mile 629L

Parcel 90 – (2.6 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This parcel consists of a narrow, linear shoreline section and an island. Although five water use facilities exist fronting the shoreline portion of this parcel, only one permit for a water use facility has been issued. In addition, the parcel has numerous violations and/or encroachments present, such as retaining walls and driveways. The backlying property is residential. There are few hardwoods on this parcel; most of the ground is bare. No federally or state-listed species are known to exist on this parcel, however there is a heronry known to be present on the island. There is a medium probability for the presence of cultural resources on this tract. The parcel has not been surveyed for historic properties. Future requests for water use facilities will not be considered.

Table 4-90. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	27
Stream Mile and Bank	Tennessee River Mile 629L
Land Use/Land Cover	Bare ground
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for historic properties
Potential Partners	None identified

Parcel 91 – (7.0 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the left descending bank of the Tennessee River. This parcel lies entirely below the 820-foot msl contour, and the current land cover is a mixture of maintained lawn and upland forest. This parcel has a high probability for the presence of cultural resources. A portion of this parcel has been surveyed, but most has not been adequately surveyed for cultural resources. Water use facilities have been constructed along the shoreline, and future requests for private water use facilities will be considered.

Table 4-91. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	27
Stream Mile and Bank	Tennessee River Mile 625.5L
Land Use/Land Cover	Maintained lawn and upland forest
Fronts Former TVA Tract (s)	XFL-70, XFL-71, XFL-72, XFL-73, XFL-75, XFL-76, XFL-78, XFL-79, XFL-80, XFL-81, XF-82
Structure Profile	820-foot mean sea level
Current Agreements/Commitments	Approved water use facilities

Parcel 92 – (24.3 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

Parcel 92 is a compilation of three noncontiguous tracts of land: one at the mouth of Lackey Creek, one in the middle of the Lackey Creek cove, and one in the back of the cove. The tract located at the mouth of Lackey Creek is covered by a dense mixture of hardwoods and pines. A telephone line crosses through the center of this parcel. The tract located in the middle length of the cove is also forested with pines and hardwoods and houses at least one known highly used dispersed recreation site.

The tract in the back of the cove is covered with pines and hardwoods. TVA acquired this tract in exchange for land rights granted by a private recreation easement (Tract No. XFL-132RE) in Poland Creek. One portion of this parcel has a high probability for the presence of cultural resources and has been surveyed. The other portions of this parcel have a medium probability for the presence of cultural resources and have not been surveyed. Requests for private water use facilities will not be considered.

Table 4-92. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	25, 25-1, and 27
Stream Mile and Bank	Lackey Creek Miles 0 to 0.7R
Land Use/Land Cover	Hardwoods and pines
Known Dispersed Recreation Opportunities	Informal camping and bank fishing
Current Agreements/Commitments	None identified

Parcel 93 – (0.1 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel is managed via a revocable license for commercial recreation and is managed as a part of Louisville Landing Marina. Amenities at this area include wet and dry boat storage accommodations, fuel and repair services, and a restaurant. This marina is located off Louisville Road. This parcel has a low probability for the presence of undisturbed cultural resources. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-93. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	25
Stream Mile and Bank	Tennessee River Mile 625.4L

Parcel 94 – (4.6 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This parcel consists of three islands in addition to a shoreline section. The dominant ground cover is hardwood and pine forest. This parcel is located in Lackey Creek and offers a shoreline buffer to P.J.'s Marina.

The shoreline section of this parcel is located adjacent to SR-333. No federally or state-listed species are known to exist on this parcel. Portions of this parcel have a high probability for the presence of cultural resources. Other parts of this parcel have a medium to low probability for the presence of cultural resources. None of this parcel has been surveyed for historic properties. Requests for private water use facilities will not be considered.

Table 4-94. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	25, 25-1, and 25-2
Stream Mile and Bank	Lackey Creek Miles 0.4 to 0.9L
Land Use/Land Cover	Hardwood and pine
Known Dispersed Recreation Opportunities	Informal camping
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for historic properties
Potential Partners	None identified

Parcel 95 – (0.4 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along the left descending bank of Lackey Creek and contains a portion of the road ROW for SR-333. The intent of this parcel is to support the road ROW and an existing utility easement. The road itself has a low probability for the presence of cultural resources.

Request for private water use facilities will not be considered.

Table 4-95. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	25 and 25-2
Stream Mile and Bank	Lackey Creek Mile 0.5L
Land Use/Land Cover	Road ROW
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Permanent easement to Knoxville Power Company for utilities
Potential Projects	None identified
Potential Partners	Knoxville Power Company

Parcel 96 – (1.4 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This is located along the left descending bank of the Tennessee River in the Lackey Creek embayment. This parcel lies entirely below the 820-foot msl contour, and the current land cover is a mixture of maintained lawn and upland forest. This parcel has a medium to high probability for the presence of cultural resources, but it has not been surveyed. No water use facilities have been constructed along the shoreline, but future requests for private water use facilities will be considered.

Table 4-96. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	25
Stream Mile and Bank	<ul style="list-style-type: none"> • Tennessee River Mile 625.5L • Lackey Creek embayment
Land Use/Land Cover	Maintained lawn and upland forest
Fronts Former TVA Tract (s)	XFL-74
Structure Profile	820-foot mean sea level
Current Agreements/Commitments	No approved water use facilities

Parcel 97 – (1.6 acres)

Proposed RLMP Allocation: Zone 5, Industrial

This parcel is located along the left descending bank of Lackey Creek and contains a portion of a railroad ROW. This parcel is managed via a revocable license agreement to Allison Boat Company. The intent of this parcel is to support industrial land use and the railroad ROW. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support industrial purposes will be considered.

Table 4-97. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	25-2
Stream Mile and Bank	Lackey Creek Mile 0.4L
Land Use/Land Cover	Maintained lawn and railroad right-of-way

Location Component and Public Involvement Opportunities	Parcel Specific Information
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	<ul style="list-style-type: none"> • Permanent Easement to L and N Railroad Company for a railroad • Revocable License to Darris Allison for a commercial parking lot

Parcel 98 – (9.2 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the left descending bank of the Tennessee River in the Lackey Creek embayment. This parcel is owned to a straight line boundary. The current land cover is maintained lawn and deciduous forest. This parcel has a medium to high probability for the presence of cultural resources. Some portions this parcel have been surveyed for cultural resources, but most have not. Water use facilities have been constructed along the shoreline, and future requests for private water use facilities will be considered.

Table 4-98. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	25
Stream Mile and Bank	<ul style="list-style-type: none"> • Tennessee River Mile 625.5L • Lackey Creek embayment
Land Use/Land Cover	Maintained lawn and deciduous forest
Fronts Former TVA Tract (s)	None
Structure Profile	Varies
Current Agreements/Commitments	Approved water use facilities

Parcel 99 – (18.6 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel has been developed for public recreation by Blount County via a term easement agreement. Louisville Point Park amenities include a boat-launching ramp, picnic area, swimming beach, and restroom. The park is accessible by Louisville Road. Undisturbed portions of this parcel have a medium probability for the presence of cultural resources. One heronry record occurs on this parcel. Requests for use of TVA lands and associated water-based structures for developed recreation purposes will be considered.

Table 4-99. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	25
Stream Mile and Bank	Tennessee River Mile 625.4L

Parcel 100 – (0.5 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the left descending bank of the Tennessee River. This parcel lies entirely below the 815-foot msl contour, and the current land cover is upland hardwood. This parcel has a high probability for the presence of cultural resources, but it has not been surveyed. Water use facilities have not been constructed along the shoreline, but future requests for private water use facilities will be considered.

Table 4-100. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	25
Stream Mile and Bank	Tennessee River Mile 625.1L
Land Use/Land Cover	Upland hardwood
Fronts Former TVA Tract (s)	XFL-68
Structure Profile	820-foot mean sea level
Current Agreements/Commitments	No approved water use facilities

Parcel 101 – (11.7 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel includes a shoreline strip that borders former TVA property (Tract No. XTFL-8) that was transferred to the State of Tennessee. This parcel also includes an area managed by the State of Tennessee via a term easement agreement (Tract No. XTFL-133E).

A boat-launching ramp and parking lot have been developed on the transferred property. The easement area is currently undeveloped. Lowes Ferry Road provides access to the parcel. This parcel has a medium probability for the presence of cultural resources. Only a portion of this parcel has been surveyed for cultural resources. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-101. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	22
Stream Mile and Bank	Tennessee River Mile 622.7L

Parcel 102 – (2.7 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along both banks of Gillespie Creek and contains a portion of the road ROW for Lowes Ferry Road. The intent of this parcel is to support the road ROW. The road itself has a low probability for the presence of cultural resources. This parcel is adjacent to parcels with higher probability for the presence of cultural resources. Request for private water use facilities will not be considered.

Table 4-102. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	25 and 25-2
Stream Mile and Bank	Gillespie Creek Mile 1B
Land Use/Land Cover	Road right-of-way
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	Revocable license to Fort Loudoun Electric Cooperative for utilities
Potential Projects	None identified
Potential Partners	Fort Loudoun Electric Cooperative

Parcel 103 – (13.2 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

TVA originally developed this parcel for public recreation. The facility is known as Poland Creek Recreation Area. The Town of Louisville via a revocable license agreement currently operates the area. Amenities include a boat-launching ramp, campground, picnic tables, and restrooms. Lowes Ferry Road provides access to the area. This parcel has a low probability for the presence of undisturbed cultural resources, but it has not been surveyed for historic properties. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-103. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	13
Stream Mile and Bank	Tennessee River Mile 620.2L
Potential Projects	Survey for historic properties

Parcel 104 – (3.8 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This parcel lies in the back of the cove of Poland Creek; is immediately adjacent to Poland Creek Campground; and fronts Holston College Road. The land cover is mostly bare ground, except the shoreline, which is lined with pines and hardwoods. The northernmost portion of this tract previously had an agricultural license for hay; however, that license is now expired. A telephone line exists through the middle part of the old agricultural license area. A transmission line crosses this parcel near the back of the cove near where Lowes Ferry Road bisects the parcel. No federally or state-listed species are known to exist on this parcel. There is a medium probability for the presence of cultural resources on this tract; however, a survey for historic properties has not been conducted. Requests for water use facilities will not be considered.

Table 4-104. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	13
Stream Mile and Bank	Poland Creek Miles 0.7 to 1L
Land Use/Land Cover	Bare, pine, and hardwood
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for historic properties
Potential Partners	None identified

Parcel 105 – (5.2 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the left descending bank of the Tennessee River. This parcel fronts Riverbrook Subdivision and is encumbered by a noncommercial, nonexclusive recreation easement (Tract No. XFL-132RE). The current land cover is maintained laws. This parcel has a low probability for the presence of cultural resources, but it has not been adequately surveyed. Water use facilities have been constructed along the shoreline, and future requests for private water use facilities will be considered.

Table 4-105. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	138–SE
TVA D-Stage Map Numbers	25
Stream Mile and Bank	Tennessee River Mile 612.0L
Land Use/Land Cover	Maintained lawn
Fronts Former TVA Tract (s)	None identified
Structure Profile	Varies
Current Agreements/Commitments	<ul style="list-style-type: none"> • Approved water use facilities • noncommercial, nonexclusive recreation easement

Parcel 106 – (17.2 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This parcel is located at the mouth of Poland Creek. The entire parcel was once under an agricultural license for hay; however, that license is now expired. A portion of the parcel was actively managed for hay, and the vegetation is now reverting to natural growth vegetation. The other portion of the parcel was not actively managed, and this area is now covered by mature hardwoods and pines. Holston Harbor and Riverbrook subdivisions, as well as a cemetery, occupy the backlying property. The shoreline of this parcel has been stabilized with rock. Legal road access to the parcel does not exist. No federally or state-listed species are known to exist on this parcel. There is a high probability for the presence of cultural resources. The parcel has not been surveyed for historic properties. Requests for water use facilities will not be considered.

Table 4-106. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SE
TVA D-Stage Map Numbers	13
Stream Mile and Bank	Tennessee River Mile 620L
Land Use/Land Cover	Hardwood and pine
Known Dispersed Recreation Opportunities	Birding, informal camping, hiking, and bank fishing
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for historic properties
Potential Partners	None identified

Parcel 107 – (29.1 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel is currently undeveloped. The tract has gentle slopes, some forest cover, and is located in a developing residential area. These factors make the site valuable for meeting future recreation needs. The parcel is located off Gravelly Hills Road but legal access to the site has not been confirmed. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structure to support developed recreation purposes will be considered.

Table 4-107. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	14
Stream Mile and Bank	Tennessee River Mile 618L
Potential Projects	Survey for historic properties

Parcel 108 – (17.9 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This parcel was formerly leased to Blount County. The property is very steep and is densely covered with a mixture of hardwood and pine forest. The backlying property is occupied by Lake Meadow Estates subdivision. Legal road access to this tract does not exist. No federally or

state-listed species are known to exist on this parcel. There is a medium to high probability for the presence of cultural resources on this tract. This parcel has not been surveyed. One 26a permit exists on this parcel for dock; however, requests for water use facilities will not be considered.

Table 4-108. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	13 and 14
Stream Mile and Bank	Tennessee River Miles 614.4 to 614.8R
Land Use/Land Cover	Hardwoods and pines
Known Dispersed Recreation Opportunities	Informal camping, hiking, and bank fishing
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for historic properties
Potential Partners	None identified

Parcel 109 – (1.7 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the left descending bank of the Tennessee River. The parcel fronts Choto Hills Subdivision. This parcel lies entirely below the 820-foot msl contour, and the current land cover is maintained lawn and deciduous forest. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Water use facilities have been constructed along the shoreline, and future requests for private water use facilities will be considered.

Table 4-109. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	12
Stream Mile and Bank	Tennessee River Mile 613.3L
Land Use/Land Cover	Maintained lawns and deciduous forest
Fronts Former TVA Tract (s)	XFL-54

Location Component and Public Involvement Opportunities	Parcel Specific Information
Structure Profile	820-foot mean sea level
Current Agreements/Commitments	Approved water use facilities

Parcel 110 – (2.8 acres)

Proposed RLMP Allocation: Zone 3, Sensitive Resource Management

This small island is located near the right bank of the Tennessee River downstream and fronts Chota Hills subdivision. Pines and hardwoods cover the majority of the island; however, a few areas are bare due to extensive informal recreational use. No federally or state-listed species are known to occur; however, a heronry record is known from this island. There is a high probability for the presence of cultural resources but a survey for historic properties has not yet been conducted on the island. Requests for private water use facilities will not be considered.

Table 4-110. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	12
Stream Mile and Bank	Tennessee River Mile 613L
Land Use/Land Cover	Pines and hardwoods
Known Dispersed Recreation Opportunities	Informal camping and bank fishing
Current Agreements/Commitments	None identified
Potential Projects	Systematic survey for historic properties
Potential Partners	None identified

Parcel 111 – (76.8 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

TVA has developed Ish Creek Boat Ramp on a portion of this large parcel. The size of this parcel and physical characteristics such as moderate topography, good forest cover, and protected waters make it suitable for a variety of developed recreation uses. Access to this site is off Wonderland Drive. This parcel has a high probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support recreation development purposes will be considered.

Table 4-111. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	11
Stream Mile and Bank	Tennessee River Mile 612L
Potential Projects	Survey for historic properties

Parcel 112 – (134.6 acres)*Proposed RLMP Allocation: Zone 4, Natural Resource Conservation*

This parcel consists of an island and a peninsula and is located in the Ish Creek Embayment. The island, known as Ish Creek Island, is likely the most heavily used area on the reservoir for informal camping on TVA lands. At least seven informal camping sites are present on the island. Boat access to the island is fairly easy due to water depth. The northern section of the island is largely covered by pines; however, the remainder of the island is an old field that is reverting to forests. The peninsula portion of this parcel is known as Marmor. Marmor is also heavily used for informal recreation on the reservoir; however, shallow water on the west side of the peninsula precludes some users from accessing the site. Many informal users are attracted to recreate at Marmor around the existing pond. Numerous informal camping sites exist on the Marmor peninsula, which is densely covered with hardwoods and pines. No federally or state-listed species are known to exist. This parcel has a high probability for the presence of cultural resources. A portion of this parcel has been surveyed, but most has not. Requests for water use facilities will not be considered.

Table 4-112. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Blount, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW and 138-SE
TVA D-Stage Map Numbers	9 and 11
Stream Mile and Bank	Ish Creek Miles 0.4 to 1.6L
Land Use/Land Cover	Hardwoods and pines
Known Dispersed Recreation Opportunities	Informal camping, hiking, and bank fishing
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for historic properties
Potential Partners	None identified

Parcel 113 – (2.4 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

The northern (downstream) portion of this shoreline parcel borders former TVA property (Tract No. XTFL-7) that was transferred to the State of Tennessee for public recreation. The State of Tennessee has developed a boat-launching ramp and parking lot at this location. Cedar Crest Lane provides access to the facility. The upstream section of the parcel, starting at TVA marker 7-7, fronts Tract No. XFL-33 sold for commercial recreation. This part of the parcel is managed as a part of Whispering Cove Marina. Marina amenities include wet and dry boat storage, fuel, boat repair, and a boat-launching ramp. This parcel has a low probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-113. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	7 and 11
Stream Mile and Bank	Tennessee River Mile 612L

Parcel 114 – (4.1 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel borders former TVA property (Tract No. XTFL-6) that was transferred to the State of Tennessee for public recreation. The State of Tennessee has developed a boat-launching ramp and parking lot at this location. Parks Ferry Road provides access to the area. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-114. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	9
Stream Mile and Bank	Tennessee River Mile 610L

Parcel 115 – (1.2 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This shoreline parcel borders a former TVA property (Tract No. XTFL-4) that was transferred to the State of Tennessee for public recreation. The site is currently undeveloped. The topography and shoreline characteristics make this area suitable for recreation development, but there is no legal road access to the property. This parcel has a low to medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support recreation development purposes will be considered.

Table 4-115. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	7
Stream Mile and Bank	Tennessee River Mile 607.5L

Parcel 116 – (5.1 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel is located along the left descending bank of the Tennessee River. The intent of this parcel is to provide a navigational safety harbor. This parcel has a high probability for the presence of cultural resources, but it has not been surveyed. Request for private water use facilities will not be considered.

Table 4-116. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	6
Stream Mile and Bank	Tennessee River Mile 606.3L
Land Use/Land Cover	Upland hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Survey for cultural resources
Potential Partners	None identified

Parcel 117 – (0.4 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel consists of three noncontiguous tracts of land located along the left descending bank of the Tennessee River in the Cloyd Creek Embayment. This parcel lies entirely below the 820-foot msl contour, and the current land cover is a mix of maintained lawn and deciduous forest. This parcel has a low to medium probability for the presence of cultural resources, but it has not been surveyed. Water use facilities have been constructed along the shoreline, and future requests for private water use facilities will be considered.

Table 4-117. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	6
Stream Mile and Bank	Tennessee River Mile 606.6L
Land Use/Land Cover	Maintained lawn and deciduous forest
Fronts Former TVA Tract (s)	Varies
Structure Profile	820-foot mean sea level
Current Agreements/Commitments	Approved water use facilities

Parcel 118 – (0.6 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel borders former TVA property (Tract No. XTFL-3) that was transferred to the State of Tennessee for public recreation. A boat-launching ramp and parking lot has been developed on the site. The area is located off Unitia Road. This parcel has a low to medium probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-118. Parcel Information

Location Component	Parcel Specific Information
County, State	Loudon, Tennessee
TVA D-Stage Map Numbers	6
Stream Mile and Bank	Tennessee River Mile 606.5L

Parcel 119 – (0.2 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This small parcel is located along the right descending bank of Cloyd Creek and contains a portion of the road ROW for Unitia Road. This parcel has a low probability for the presence of undisturbed cultural resources. The intent of this parcel is to support the road ROW. Request for private water use facilities will not be considered.

Table 4-119. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	138–SW
TVA D-Stage Map Numbers	6
Stream Mile and Bank	Cloyd Creek Mile 0.7R
Land Use/Land Cover	Road ROW
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	None identified
Potential Partners	None identified

Parcel 120 – (33.5 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel is currently undeveloped. While the property's physical characteristics including steep topography constrain the level of potential development, the size and location of the property make it desirable for meeting future recreation needs in this area of the reservoir. The parcel is located nearest Camp Road, but this parcel does not have legal road access. This parcel has a medium to high probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-120. Parcel Information

Location Component	Parcel Specific Information
County, State	Loudon, Tennessee
TVA D-Stage Map Numbers	6
Stream Mile and Bank	Tennessee River Mile 606.3L

Parcel 121 – (6.6 acres)

Proposed RLMP Allocation: Zone 2, Project Operations

This parcel consists of two noncontiguous tracts of located along the left descending bank of the Tennessee River. This parcel contains a portion of a transmission line ROW and a navigational safety harbor. This parcel has a medium to high probability for the presence of cultural resources, but it has not been surveyed. Request for private water use facilities will not be considered.

Table 4-121. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	138–SW
TVA D-Stage Map Numbers	6
Stream Mile and Bank	Tennessee River Mile 606.5L
Land Use/Land Cover	Upland hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	Survey for cultural resources
Potential Partners	None identified

Parcel 122 – (28.6acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel was initially developed and operated by TVA as Yarberry Peninsula Recreation Area, and is now operated via a commercial recreation lease agreement. Amenities at this area include a campground, boat-launching ramp, swimming beach, and picnic tables. Yarberry Drive provides access to the area. This parcel has a high probability for the presence of cultural resources. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-122. Parcel Information

Location Component	Parcel Specific Information
County, State	Loudon, Tennessee
TVA D-Stage Map Numbers	2
Stream Mile and Bank	Tennessee River Mile 604.5L

Parcel 123 – (0.7 acres)

Proposed RLMP Allocation: Zone 4, Natural Resource Conservation

This parcel lies between two sections of the Fort Loudoun Estates subdivision, adjacent to Sandy Shores Drive. It is a small parcel covered with mature hardwoods. No federally or state-listed species are known to exist on this parcel. This parcel has a medium probability for the presence of cultural resources, but the parcel has not been surveyed for historic properties. Requests for water use facilities will not be considered.

Table 4-123. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	2
Stream Mile and Bank	Tennessee River Mile 603.6L
Land Use/Land Cover	Hardwoods
Known Dispersed Recreation Opportunities	None identified
Current Agreements/Commitments	None identified
Potential Projects	<ul style="list-style-type: none"> • Placement of TVA property and public lands signs along the parcel boundary and shoreline • Refresh the existing paint denoting TVA's property boundaries • Systematic survey for historic properties
Potential Partners	None identified

Parcel 124 – (7.3 acres)

Proposed RLMP Allocation: Zone 7, Shoreline Access

This parcel is located along the right descending bank of the Tennessee River. The parcel fronts Fort Loudoun Estates 2 Subdivision. This parcel includes a sale tract to a contour and a straight line boundary section. The current land cover is maintained lawns. This parcel has a medium probability for the presence of cultural resources, but it has not been surveyed. Water use facilities have been constructed along the shoreline, and future requests for private water use facilities will be considered.

Table 4-124. Parcel Information

Location Component and Public Involvement Opportunities	Parcel Specific Information
County, State	Loudon, Tennessee
Topographic Map (Sheet No. and Quadrant)	138-SW
TVA D-Stage Map Numbers	2
Stream Mile and Bank	Tennessee River Mile 603.5L
Land Use/Land Cover	Maintained lawns
Fronts Former TVA Tract (s)	Varies
Structure Profile	Varies
Current Agreements/Commitments	Approved water use facilities

Parcel 125 – (10.9 acres)

Proposed RLMP Allocation: Zone 6, Developed Recreation

This parcel provides access to the Little River and is jointly managed by TVA and TWRA. Improvements include a gravel parking lot and paddle boat put-in area. U.S. Highway 321 provides access to the area. This parcel has a high probability for the presence of cultural resources, but it has not been surveyed. Requests for use of TVA lands and associated water-based structures to support developed recreation purposes will be considered.

Table 4-125. Parcel Information

Location Component	Parcel Specific Information
County, State	Blount, Tennessee
TVA D-Stage Map Numbers	NA
Stream Mile and Bank	Little River Mile 22L

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CHAPTER 5. PLANNING TEAM

Chellye L. Campbell

Position: Senior Specialist, Land Policy
Education: B.S. Biology
Experience: 15 years in Planning and Managing Land
Involvement: Deed interpretation and Land Policy guidance

Garry E. Chappelle

Position: Program Manager, Natural Resource Management
Education:
Experience: 17 years in GIS Mapping and 15 years in Land Management
Involvement: Planning Team and Natural Resource Management

Keri J. Chartrand

Position: Specialist, Recreation Agreements
Education:
Experience:
Involvement: Planning Team and Recreation Management

Jerry G. Fouse

Position: Recreation Specialist
Education: M.B.A., B.S., Forestry and Wildlife
Experience: 39 years in Natural Resources – Recreation Planning and Economic Development
Involvement: Planning Team and Recreation Management

Thomas O. Maher

Position: Senior Archaeologist
Education: Ph.D. Anthropology
Experience: 33 years in the field of Archaeology
Involvement: Planning Team and Cultural Resource Management

Leonard L. McCurdy, Jr.

Position: Senior Specialist, Reservoir Land Use and Permitting
Education: J.D., Law; B.S., Environmental Studies - Chemistry
Experience: 26 years in the field of Law including 19 years in TVA real property rights
Involvement: Deed interpretation and Land Policy guidance

Robert A. Marker

Position: Senior Specialist, Recreation
Education: B.S., Outdoor Recreation Resources Management
Experience: 44 years in Recreation Resources Planning and Management
Involvement: Planning Team and Recreation Management

Heather L. Montgomery

Position: Senior Program Manager, Reservoir Land Planning
Education: B.S., Environmental Biology
Experience: 15 years in Planning and Managing Land and Environmental Impacts Evaluation
Involvement: Program Manager

Mark T. Morrissey

Position: Geographic Analyst
Education: B.S., Geography
Experience: 2 years in Planning and Managing Land; 5 years in Industrial Safety and Compliance
Involvement: Document Preparation; Planning Team; and Preparation of Geographic information Systems

Angela M. Sutton

Position: Watershed Representative
Education: M.S., Geology; B.S., Geology and Biology
Involvement: Planning Team and Natural Resource Management

Debra L. Rutherford

Position: Program Manager, Reservoir Land Use and Permitting
Involvement: Planning Team and Deed interpretation

Karen E. Rylant

Position: Senior Specialist, Section 26a Policy and Process
Education: Ph.D., Agronomy (Soil Chemistry); M.S., Soil Fertility; B.A., Chemistry, B.A., Geology
Experience: 8 years in Environmental Research; 4 years in Land and Shoreline Management
Involvement: Deed interpretation and Section 26a guidance

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GLOSSARY

acre	A unit measure of land area equal to 43,560 square feet
agricultural licensing	Some parcels or portions of parcels designated for other purposes or uses may also be suitable for interim agricultural licensing. These parcels have been identified using the criteria contained in TVA's agriculture instruction. Normal tenure for a TVA agricultural license is five years. Land with extreme erosion potential may not be licensed for agricultural use unless erosion and sediment controls, including the use of best management practices, can be successfully implemented. Further investigation and/or mitigation of adverse impacts to natural or cultural resources may be required prior to approval of license agreements.
cultural resources	Archaeological, historic, and architectural resources
dam reservation	Lands generally maintained in a park-like setting by TVA to protect the integrity of the dam structure, hydroelectric facilities, and navigation locks. The reservation also provides for public visitor access to the TVA dam facilities and recreation opportunities, such as public boat access, bank fishing, camping, picnicking, etc. Hunting is not typically allowed on dam reservations.
deciduous	Vegetation that sheds leaves in autumn and produces new leaves in the spring.
dispersed recreation	Recreation of an informal nature such as hunting, hiking, biking, bird watching, photography, primitive camping, bank fishing, and picnicking, etc. that occur on TVA land. These activities are not associated with developed facilities although some improvements may occur for access, health and safety, or to protect the environment.
embayment	A bay or arm of the reservoir
endangered species	A species in danger of extinction throughout all or a significant part of its range. Endangered species recognized by the Endangered Species Act or similar state legislation have special legal status for their protection and recovery.
Environmental Policy	A TVA Board-approved policy that communicates guiding principles to lead TVA successfully in the reduction of its environmental impact while continuing to provide reliable and competitively priced power to the Valley
floodplain	Any land area susceptible to inundation by water from any source by a flood of selected frequency. For purposes of the National Flood Insurance Program, the floodplain, as a minimum, is that area subject to one percent or greater chance of flooding (100-year flood) in any given year.
forest	Vegetation having tree crowns overlapping, generally forming 60 to 100 percent cover.
Land Policy	A TVA Board-approved policy that guides retention, disposal, and planning interests in real property
mitigation	An action that either will result in avoidance or an effect or cause the results of an activity to be minor in significance
natural areas	Ecologically significant sites, lands set aside for particular management objectives, and lands that contain sensitive biological, cultural or scenic resources. The TVA natural area program includes small wild areas, habitat

plan tract	protection areas, wildlife observation areas, and ecological study areas. A numbered parcel of TVA fee-owned land.
prime farmland	Generally regarded as the best land for farming, these areas are flat or gently rolling and are usually susceptible to little or no soil erosion. Prime farmland produces the most food, feed, fiber, forage, and oil seed crops with the least amount of fuel, fertilizer, and labor. It combines favorable soil quality, growing season, and moisture supply and, under careful management, can be farmed continuously and at a high level of productivity without degrading either the environment or the resource base. Prime farmland does not include land already in or committed to urban development, roads, or water storage.
riparian	Related to or located on the banks of a river or stream
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
shoreland	The surface of land lying between the minimum pool elevation of a TVA reservoir and the maximum shoreline contour or TVA back-lying property (whichever is further)
shoreline	The line where the water of a TVA reservoir meets the shore when the water level is at the normal summer pool elevation.
shoreline access rights	TVA land encumbered with deeded or implied rights held by adjacent property owners. The deeded or implied rights allow individuals to construct water use facilities upon receipt of TVA's written approval of plans.
threatened species	A species threatened with extinction throughout all or a significant portion of its range or territory. Threatened species recognized by the Endangered Species Act or similar state legislation have special legal status for their protection and recovery.
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.
wildlife management area	Land and/or water areas designated by state wildlife agencies, such as the Tennessee Wildlife Resources Agency, for the protection and management of wildlife. These areas typically have specific hunting and trapping regulations as well as rules regarding appropriate uses of these areas by the public.

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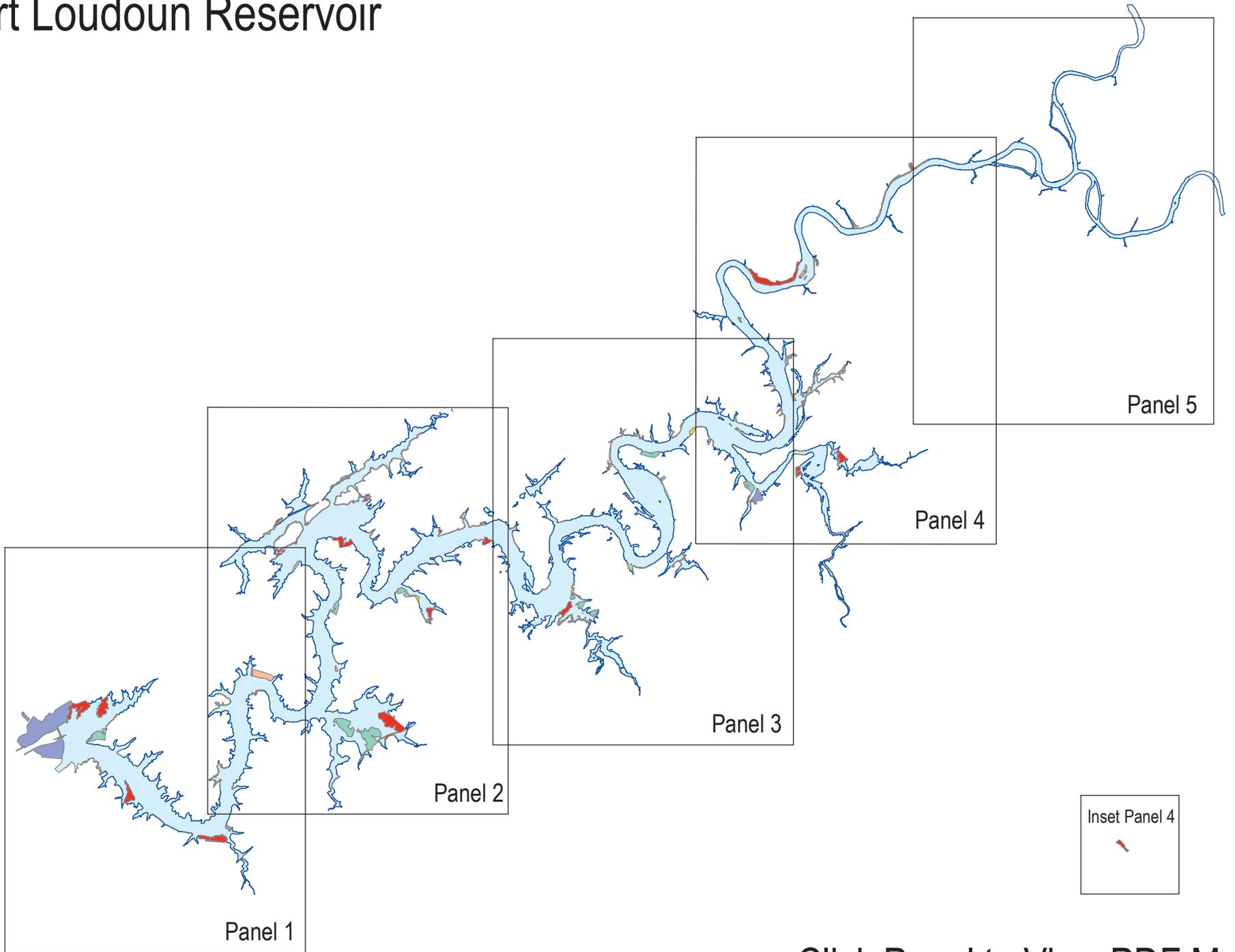
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Appendix A – Draft Land Management Plan Maps – Panels 1 through 5

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Fort Loudoun Reservoir



Click Panel to View PDF Map

Appendix B – Comparison of Parcel Allocations by Alternative

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APPENDIX B

Comparison of Parcel Allocations by Alternative

FORT LOUDOUN RESERVOIR

Of the 1,513.2 acres on Fort Loudoun Reservoir, there are no proposed allocation changes to 1,251.3 acres (82.7 percent); all proposed allocation changes involve 261.9 acres (17.3 percent). Of the 261.9 acres, TVA would allocate 102.6 acres (39.2 percent) to reflect existing land use agreements or commitments. The remaining 159.3 acres (60.8 percent) involve proposed parcel allocations that are not based on existing land use agreements or commitments.

¹Some parcels are separated into smaller portions to show comprehensive consideration of some parcels. Portions of parcels are in bold text with a footnote.

See Tables below:

Table 1 = No Proposed Allocation Changes;

Table 2 = Changes Based on Existing Agreements or Commitments;

Table 3 = Changes NOT based on Existing Agreements or Commitments

Table 1. No Proposed Allocation Changes			
Number of Parcels Per Zone Allocation			
Zone 2	8	Zone 5	2
Zone 3	1	Zone 6	34
Zone 4	15	Zone 7	17
Parcel	No Action Allocation (Alternative A)	Proposed Allocation (Alternative B)	Acres per Allocation
2	6	6	1.4
3	2	2	386.1
5	6	6	49.6
6	6	6	38.2
8	7	7	2.1
10	4	4	35.7
11	2	2	2.6
12	6	6	1.5
13	6	6	10.3
14	6	6	1.1
15	4	4	2.4
17	7	7	3.0
18	2	2	2.8
19	3	3	36.9
20¹	4	4	7.8
21¹	6	6	58.1
23¹	4	4	4.9
24	6	6	4.9
26¹	5	5	3.6
30	7	7	0.9
32	6	6	1.9
33	6	6	10.5
34	7	7	2.4
35¹	6	6	1.3
45	2	2	2.0
46	6	6	4.7
48	6	6	69.1
50¹	2	2	0.1
51	5	5	0.7
52	6	6	0.2
55	6	6	9.9
56	6	6	0.6
59	6	6	1.1

Appendix B – Comparison of Parcel Allocations by Alternative

Parcel	No Action Allocation (Alternative A)	Proposed Allocation (Alternative B)	Acres per Allocation
60	6	6	2.5
62	4	4	1.6
64	4	4	4.9
65	6	6	23.8
67	7	7	1.0
68	6	6	19.6
70	6	6	1.0
72	6	6	9.1
74	7	7	0.8
76	6	6	4.3
81	7	7	9.0
82	4	4	21.7
84	4	4	9.9
85	6	6	3.7
87	7	7	0.6
88	2	2	1.9
90	7	7	2.4
90a	4	4	0.3
91	7	7	7.0
92	4	4	24.3
94	4	4	0.7
96	7	7	1.4
98	7	7	9.2
99	6	6	18.6
100	7	7	0.5
103	6	6	13.2
104	4	4	3.8
105	7	7	5.2
106	4	4	17.2
107	6	6	29.1
108	4	4	17.9
109	7	7	1.7
111	6	6	76.8
112	4	4	53.2
113	6	6	2.4
114	6	6	4.1
116	2	2	5.1
117	7	7	0.4
118	6	6	0.6
120	6	6	33.5

Draft Fort Loudoun Reservoir Land Management Plan

Parcel	No Action Allocation (Alternative A)	Proposed Allocation (Alternative B)	Acres per Allocation
121	2	2	2.9
122	6	6	28.6
124	6	6	10.9
124	7	7	7.3
Total = 77 Parcels or Portions of a Parcel		Total = 1,251.3 Acres	

¹Denotes a portion of the parcel

Table 2. Changes Based on Existing Agreements or Commitments			
	No Action ¹ Parcels	Proposed Allocation Parcels	
Zone 2	0	24	<i>6.8 Percent of Fort Loudoun Lands</i>
Zone 3	0	0	
Zone 4	5	7	
Zone 5	2	5	50 parcels 102.6 acres
Zone 6	12	11	
Zone 7	10	3	

Parcel	No Action Allocation (Alternative A)	Proposed Allocation (Alternative B)	Acres per Allocation
1	6	2	0.8
4	Not Planned	2	7.8
7	Not Planned	6	0.3
9	Not Planned	6	0.2
16	4	2	0.5
21¹	Not Planned	6	7.4
22	6	2	0.7
26¹	7	5	0.4
26¹	Not Planned	5	0.3
27	Not Planned	2	0.6
28¹	7	4	1.3
29	5	2	0.3
31	7	2	0.3
35¹	Not Planned	6	2.5
36	Not Planned	6	5.0
37	Not Planned	2	3.1
41	Not Planned	6	1.8
42	Not Planned	2	2.4
43	Not Planned	6	1.7
50¹	Not Planned	2	3.5
61	6	7	2.3

Appendix B – Comparison of Parcel Allocations by Alternative

Parcel	No Action Allocation (Alternative A)	Proposed Allocation (Alternative B)	Acres per Allocation
66	6	2	1.3
69	6	2	1.3
71	7	4	0.3
73	6	2	2.5
75	5	2	23.0
77¹	6	2	0.6
77¹	Not Planned	2	0.0
78¹	6	5	0.0
78¹	Not Planned	5	0.4
83	4	7	0.2
86	6	2	1.3
89	4	6	2.0
93	7	6	0.1
94¹	7	4	2.0
95	7	2	0.1
95	Not Planned	2	0.3
97	7	5	1.6
101	Not Planned	6	11.7
102¹	4	2	0.3
102¹	6	2	2.1
102¹	Not Planned	2	0.4
115	4	6	1.2
119	6	2	0.2
121	6	2	3.7
123	7	4	0.7
34a	7	4	0.5
35a	Not Planned	4	0.8
41a	Not Planned	7	0.7
41b	Not Planned	4	0.3
Total = 50 Parcels or Portions of a Parcel		Total = 102.6 Acres	

¹Denotes a portion of the parcel

Table 3. Changes NOT Based on Existing Agreements or Commitments			
	No Action Parcels	Proposed Allocation Parcels	
Zone 2	0	6	10.5 Percent of Fort Loudoun Lands
Zone 3	0	6	
Zone 4	7	9	
Zone 5	2	1	24 parcels 159.3 acres
Zone 6	7	2	
Zone 7	0	0	

Parcel	No Action Allocation (Alternative A)	Proposed Allocation (Alternative B)	Acres per Allocation
20¹	Not Planned	4	0.5
23¹	Not Planned	4	0.8
25¹	Not Planned	2	1.0
28¹	5	4	1.2
38	Not Planned	4	0.5
39	Not Planned	2	0.1
40	Not Planned	6	6.8
44	4	3	2.7
47	4	3	1.7
49	4	3	8.7
53¹	5	2	5.9
53¹	6	2	7.4
54	6	5	3.5
57	4	6	4.1
58¹	4	2	1.9
58¹	6	2	0.5
62¹	6	4	0.2
63	4	3	5.3
79	6	4	19.0
80	6	3	1.5
94¹	Not Planned	4	0.0
94¹	Not Planned	4	1.9
110	4	3	2.8
112	6	4	81.4
Total – 24 Parcels or Portions of a Parcel		Total = 159.3 Acres	

¹Denotes a portion of the parcel