

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



**DOUGLAS RESERVOIR**  
**FINAL RESERVOIR LAND MANAGEMENT PLAN**

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**DOUGLAS-NOLICHUCKY TRIBUTARY RESERVOIRS**  
**LAND MANAGEMENT PLAN**

**FINAL ENVIRONMENTAL IMPACT STATEMENT**

**AUGUST 2010**



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**DOUGLAS-NOLICHUCKY TRIBUTARY  
RESERVOIRS  
LAND MANAGEMENT PLAN AND  
ENVIRONMENTAL IMPACT STATEMENT  
  
VOLUME II**

**Douglas Reservoir**

**PREPARED BY:**  
TENNESSEE VALLEY AUTHORITY

AUGUST 2010

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## ACRONYMS AND ABBREVIATIONS

<b>ADA</b>	Americans With Disabilities Act
<b>DNTRLMP</b>	Douglas-Nolichucky Tributary Reservoirs Land Management Plan
<b>EO(s)</b>	Executive orders
<b>EIS</b>	Environmental impact statement
<b>EPT</b>	Ephemeroptera, Plecoptera, Trichoptera (aquatic ecology index)
<b>ESA</b>	Endangered Species Act
<b>FBRM</b>	French Broad River Mile
<b>LAC</b>	Limits of acceptable change
<b>MSC</b>	Maximum shoreline contour
<b>msl</b>	Mean sea level
<b>NEPA</b>	National Environmental Policy Act
<b>NGVD 1929</b>	National Geodetic Vertical Datum Model of 1929
<b>NRHP</b>	National Register of Historic Places
<b>NRI</b>	Nationwide Rivers Inventory
<b>RFAI</b>	Reservoir Fish Assemblage Index
<b>RLMP</b>	Reservoir land management plan
<b>RV</b>	Recreational vehicle
<b>RVSMP</b>	Reservoir Vital Signs Monitoring Program
<b>SFI</b>	Sport Fishing Index
<b>SMI</b>	Shoreline Management Initiative
<b>SMP</b>	Shoreline Management Policy
<b>TN-EPPC</b>	Tennessee Exotic Plant Pest Council
<b>TWRA</b>	Tennessee Wildlife Resources Agency
<b>TVA</b>	Tennessee Valley Authority
<b>U.S.</b>	United States
<b>USA</b>	United States of America
<b>USACE</b>	U.S. Army Corps of Engineers
<b>USDA</b>	U.S. Department of Agriculture

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## **1.0 INTRODUCTION**

The Douglas Reservoir Land Management Plan is a study of the Tennessee Valley Authority (TVA) managed public land surrounding Douglas Reservoir. It is one of two reservoir land management plans (RLMPs) associated with an environmental impact statement (EIS) for the Douglas and Nolichucky tributary reservoirs. The EIS, Volume I, contains information on the purpose of and need for action, the alternatives, the affected environment, and environmental consequences of TVA's proposed actions. In addition, the EIS contains a summary, a list of preparers, a list of those who received a copy of the EIS, supporting information, an index, and appendices.

This document provides background information about TVA land management throughout its history and specifically TVA management of public land surrounding Douglas Reservoir. It explains the purpose of this RLMP and describes the process used in its development. The RLMP includes the Planning Process, which lists the objectives around which the RLMP was developed and a summary of the allocation process. The Douglas Reservoir Regional Overview describes the natural and social development of the reservoir and the surrounding area. The Parcel Descriptions include total acreage and parcel descriptions documenting land management allocations. The allocation map is stored in the pocket on the back cover of this RLMP.

### **1.1. Background**

TVA has been charged by Congress with improving navigation, controlling floods, providing for the proper use of marginal lands, providing for industrial development, and providing power at rates as low as is feasible, all for the general purpose of fostering the physical, economic, and social development of the Tennessee Valley region. The lands that TVA holds as steward in the name of the United States of America (USA) are some of the most important resources of the region. These lands have provided the foundation for the dams and reservoirs that protect the region from flooding and secure for its residents the benefits of a navigable waterway and low-cost hydroelectricity.

TVA's public lands are the sites for its power generating system and arteries for delivering power to those that need it. Many of the region's parks, recreation areas, and wildlife refuges that are so important for the region's quality of life are on lands TVA made available. TVA public lands often have been the catalyst for public and private economic development that supports all of these activities.

The USA, through TVA, originally acquired approximately 1.3 million acres of land in the Tennessee River Valley. The construction and operation of the reservoir system inundated approximately 470,000 acres with water. Approximately 508,000 acres have been transferred to other federal and state agencies for public uses or sold for private uses. The USA owns approximately 293,000 acres that TVA manages pursuant to the TVA Act of 1933.

TVA originally acquired a total of 3,757 acres of land above full summer pool for the Douglas and Nolichucky tributary reservoirs and associated hydroelectric generating facilities. Over the years, TVA has transferred some of this land to other public agencies, primarily the Tennessee Wildlife Resources Agency (TWRA), or sold it to various public and private entities. TVA presently manages a total of 3,191 acres of land on these reservoirs that is the subject of this Douglas and Nolichucky Tributary Reservoirs Land Management Plan (DNTRLMP).

As stewards of this important resource, TVA's policy is 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 Tennessee Valley region. TVA recognizes that historical land transfers have contributed substantially to meeting these multipurpose objectives, and it is TVA's policy to preserve reservoir lands remaining in public ownership under its control except in rare instances when the benefits to the public will be so significant that transferring the land is justified.

## **1.2. Purpose**

TVA's [Land Policy](#) (Volume I, Appendix A) was approved by the TVA Board of Directors on November 30, 2006. This policy governs how land is planned, including whether it is disposed of or retained. In order to systematically manage TVA public land around its reservoirs, TVA develops RLMPs, which seek to integrate land and water program goals, provide for the optimum public benefit, and balance competing and sometimes conflicting resource uses.

By providing a clear statement of how TVA intends to manage land and by identifying each parcel for specific purposes, TVA hopes to facilitate decision-making for the use of the public land in its care. Land planning guides TVA in the management of resources and property administration decisions on land under its control. RLMPs are approved by the TVA Board of Directors and adopted as agency policy, providing for long-term land stewardship and accomplishment of TVA responsibilities under the TVA Act.

TVA's integrated resource management approach focuses on balancing flood control, navigation, power generation, water quality, recreation, and land use needs to obtain the optimum benefit for the whole system. Land planning supports TVA's vision of generating prosperity in the Valley by addressing the goals of supporting a thriving river system and stimulating economic growth. To that end, the RLMP provides a framework for deciding the optimum use of TVA public land and promotes the efficient operation of the TVA reservoir system.

This RLMP will guide resource management and administration decisions on approximately 2,055 acres around Douglas Reservoir, which are publicly owned and managed by TVA. It identifies the most suitable uses for 62 parcels of TVA public land, providing areas for project operations, sensitive resource management, natural resource conservation,

industrial/commercial development, recreation, and shoreline access. The 2,055 acres of TVA public land accounts for approximately 69 miles of Douglas Reservoir shoreline.

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## 2.0 PLANNING PROCESS

Under the TVA Act of 1933, TVA is responsible for the control and use of the Tennessee River and its tributaries and the development and use of the resources in the Tennessee Valley. TVA has managed the public reservoir land under its stewardship to meet a wide range of regional and local resource development needs and to improve the quality of life, both within specific reservoir areas and throughout the Tennessee Valley. Reservoir properties, together with adjoining private lands, have been used for public parks, industrial development, commercial recreation, residential development, tourism development, and forest and wildlife management areas. Reservoir properties also meet a variety of other needs associated with local communities.

An increasing demand for and use of reservoir land sometimes results in conflicting and uneconomical land use patterns between public and private use. These competing interests and development pressures, coupled with today's environmental awareness, underscore the necessity for a planned approach to the management of reservoir land and related resources.

The land planning process is currently conducted under the National Environmental Policy Act (NEPA) and its implementing regulations, which require environmental review of federal actions having the potential to impact the environment. Land planning supports state and federal goals to be environmentally responsible, stakeholder driven, and growth oriented, by providing a framework for deciding the best use of TVA-managed public land.

The reservoir land management planning process allocates TVA fee-owned land to seven defined land use zones. The term *land use zone(s)* refers to a descriptive set of criteria that are given to distinct areas of land based on location, features, and characteristics (see Table 1 for Land Use Zone Definitions). The process includes resource data, computer analysis, and input from the public, other agencies, and knowledgeable TVA staff. A land use zone provides a clear statement of how TVA will manage public land and identifies land for specific uses; an RLMP minimizes conflicting land uses and makes it easier to handle requests for use of public land.

This RLMP was developed by a team of land managers and technical experts from TVA, knowledgeable about the reservoir and its resources. The planning team made land use recommendations by integrating public needs, environmental conditions, economic benefits, state and federal policies, and the original congressional intent of the Douglas Reservoir project.

**Table 1. Land Use Zone Definitions**

Zone		Definition
1	<b>Non-TVA Shoreland</b>	<p>Shoreland that TVA does not own in fee or land never purchased by TVA. Non-TVA Shoreland allocations are based on deeded rights and, therefore, will not change as a result of the land planning process. This category is provided to assist in comprehensive evaluation of potential environmental impacts of TVA’s allocation decision. Non-TVA shoreland includes:</p> <ul style="list-style-type: none"> <li>• <b>Flowage easement land</b>—Privately or publicly owned land where TVA has purchased the right to flood and/or limit structures. Flowage easement rights are generally purchased to a contour elevation. Since construction on flowage easement land is subject to TVA’s Section 26a permitting requirements, the SMP guidelines discussed in the definition of Zone 7 would apply to the construction of residential water use facilities fronting flowage easement land. SMP guidelines addressing land-based structures and vegetation management do not apply.</li> <li>• <b>Privately owned reservoir land</b>—This was land never purchased by TVA and may include, but is not limited to, residential, industrial, commercial, or agricultural land. This land, lying below the 500-year flood elevation, is subject to TVA’s Section 26a approvals for structures.</li> </ul>
2	<b>Project Operations</b>	<p>All TVA reservoir land currently used for TVA operations and public works projects, including:</p> <ul style="list-style-type: none"> <li>• <b>Land adjacent to established navigation operations</b>—Locks, lock operations and maintenance facilities, and the navigation work boat dock and bases.</li> <li>• <b>Land used for TVA power projects operations</b>—Generation facilities, switchyards, and transmission facilities and rights-of-way.</li> <li>• <b>Dam reservation land</b>—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, watershed team offices, research areas, and visitor centers.</li> <li>• <b>Navigation safety harbors/landings</b>—Areas used for tying off commercial barge tows and recreational boats during adverse weather conditions or equipment malfunctions.</li> <li>• <b>Navigation dayboards and beacons</b>—Areas with structures placed on the shoreline to facilitate navigation.</li> <li>• <b>Public works projects</b>—Includes public utility infrastructure, such as substations and rights-of-way for sewer lines, water lines, transmission lines, and major highway projects.</li> <li>• <b>Land planned for any of the above uses in the future.</b></li> </ul>
3	<b>Sensitive Resource Management</b>	<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>

Zone	Definition
	<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. Areas included are:</p> <ul style="list-style-type: none"> <li>• TVA-designated sites with potentially <b>significant archaeological resources</b>.</li> <li>• TVA public land with <b>sites/structures listed on or eligible for listing in the National Register of Historic Places</b>.</li> <li>• <b>Wetlands</b>—Aquatic bed, emergent, forested, and scrub-shrub wetlands as defined by TVA.</li> <li>• <b>TVA public land under easement, lease, or license to other agencies/individuals</b> for resource protection purposes.</li> <li>• <b>TVA public land fronting land owned by other agencies/individuals</b> for resource protection purposes.</li> <li>• <b>Habitat Protection Areas</b>—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.</li> <li>• <b>Ecological Study Areas</b>—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.</li> <li>• <b>Small Wild Areas</b>—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.</li> <li>• <b>River Corridor with sensitive resources</b>—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.</li> <li>• <b>Significant scenic areas</b>—Areas designated for visual protection because of their unique vistas or particularly scenic qualities.</li> <li>• <b>Champion tree site</b>—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.</li> <li>• <b>Other sensitive ecological areas</b>—Examples of these areas include heron rookeries, uncommon plant and animal communities, and unique cave or karst formations.</li> <li>• <b>Land planned for any of the above uses in the future.</b></li> </ul>

Zone		Definition
4	<b>Natural Resource Conservation</b>	<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"> <li>• <b><i>TVA public land under easement, lease, or license to other agencies</i></b> for wildlife or forest management purposes.</li> <li>• <b><i>TVA public land fronting land owned by other agencies</i></b> for wildlife or forest management purposes.</li> <li>• <b><i>TVA public land</i></b> managed for wildlife or forest management projects.</li> <li>• <b><i>Dispersed recreation areas</i></b> maintained for passive, dispersed recreation activities, such as hunting, hiking, bird watching, photography, primitive camping, bank fishing, and picnicking.</li> <li>• <b><i>Shoreline Conservation Areas</i></b>—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.</li> <li>• <b><i>Wildlife Observation Areas</i></b>—TVA Natural Areas with unique concentrations of easily observed wildlife that are managed as public wildlife observation areas.</li> <li>• <b><i>River Corridor without sensitive resources present</i></b>—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).</li> <li>• <b><i>Islands of 10 acres or less.</i></b></li> <li>• <b><i>Land planned for any of the above uses in the future.</i></b></li> </ul>
5	<b>Industrial</b>	<p>Land managed for economic development, including businesses in distribution/processing/assembly and light manufacturing. Preference will be given for businesses requiring water access. There are two primary types of uses for TVA land allocated for Industrial: <b>(1) Access for water supply or structures associated with navigation such as barge terminals, mooring cells, etc., or (2) Land-based development potential.</b></p> <p>Areas included are:</p> <ul style="list-style-type: none"> <li>• <b><i>TVA public land under easement, lease, or license to other agencies/individuals</i></b> for purposes described above.</li> <li>• <b><i>TVA public land fronting land owned by other agencies/individuals</i></b> for industrial purposes described above.</li> <li>• <b><i>Land planned for any of the above uses in the future.</i></b></li> </ul> <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"> <li>• <b><i>Light Industrial</i></b>—TVA waterfront land that would support businesses and light manufacturing activities. Industrial parks</li> </ul>



	Zone	Definition
		<p>should not include retail, service-based businesses like assisted living, retirement centers, or walk-in-type businesses (excluding retail use).</p> <ul style="list-style-type: none"> <li>• <b>Industrial Access</b>—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.</li> <li>• <b>Barge Terminal Sites</b>—Public or private facilities used for the transfer, loading, and unloading of commodities between barges and trucks, trains, storage areas, or industrial plants.</li> <li>• <b>Fleeting Areas</b>—Sites used by the towing industry to switch barges between tows or barge terminals that have both offshore and onshore facilities.</li> <li>• <b>Minor Commercial Landing</b>—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.</li> </ul>
6	Developed Recreation	<p>The designations below are based on levels of development and the facilities available to the public. Parcel descriptions should describe the primary type of use and identify access potential for infrastructure and potential for development:</p> <p><b>Water Access</b>—Small parcels of land, generally less than 10 acres, and typically shoreline areas conveyed to public agencies for public access.</p> <p><b>Public</b>—More recreational opportunities, some facilities, more than a parking lot and boat ramp. This includes areas conveyed for public recreation.</p> <p><b>Commercial</b>—Property suitable and capable to support commercial water-based operations. This includes areas conveyed for commercial recreation.</p> <p>Land managed for concentrated, active recreational activities that require capital improvement and maintenance, including:</p> <ul style="list-style-type: none"> <li>• <b><i>TVA public land under easement, lease, or license to other agencies/individuals</i></b> for recreational purposes.</li> <li>• <b><i>TVA public land fronting land owned by other agencies/individuals</i></b> for recreational purposes.</li> <li>• <b><i>TVA public land</i></b> developed for recreational purposes, such as campgrounds, day use areas, etc.</li> <li>• <b><i>Land planned for any of the above uses in the future.</i></b></li> </ul> <p>Types of development that can occur on this land are:</p> <ul style="list-style-type: none"> <li>• <b><i>Water access</i></b>, e.g., areas that tend to have limited development and can include a launching ramp, courtesy piers, canoe access, parking areas, picnic areas, trails, etc.</li> </ul>

Zone		Definition
		<ul style="list-style-type: none"> <li>• <b>Public Recreation</b>—recreation on publicly owned land. These areas typically have facilities or uses developed by a public agency and provide amenities open to the general public. Facilities at “public recreation” areas could include playgrounds/play structures, picnic facilities, tennis courts, horseshoe areas, play courts, recreation centers, athletic fields, trails, natural areas, amphitheaters, food concessions (vending, snack bar), access to water for fishing and boating, swimming areas and swimming pools, marina facilities owned by the public entity, parking, and campgrounds.  Public recreation, time-forward, will not include residential use, cabins, or other overnight accommodations (other than campgrounds), except if a recreation area is owned by a state or state agency and operated as a component of a state park system, in which case cabins and other overnight accommodations will be permitted.  Public recreation uses typically include areas and facilities owned and operated by the federal, state, county, or local government (municipalities/communities). However, private entities may operate recreation facilities on public property as concessionaires under agreement with the public entity controlling the property. The use of the facilities may be offered free or for a fee. This does not allow for public-private partnership where facilities are owned by private investors. All structures and facilities should be owned by the agreement holder.</li> <li>• <b>Commercial Recreation</b>—is defined as recreation amenities that are provided for a fee to the public intending to produce a profit for the owner/operator. These primarily water-based facilities typically include marinas and affiliated support facilities like restaurants and lodges; campgrounds; cabins; military vessel attractions; and excursion tour vessels (restaurant on the water). These uses and activities can be accommodated through changes in existing conveyance agreements. These areas do not include residential use, long-term accommodations or individually owned units. Where applicable, TVA will request appropriate compensation for the use of the property.</li> <li>• <b>Greenways</b>—Linear parks or developed trails located along natural features, such as lakes or ridges, or along man-made features, including abandoned railways or utility rights-of-way, which link people and resources together.</li> </ul>
7	<b>Shoreline Access</b>	<p>TVA-owned land where Section 26a applications and other land use approvals for residential shoreline alterations are considered. Requests for residential shoreline alterations are considered on parcels identified in this zone where such use was previously considered and where the proposed use would not conflict with the interests of the general public. Types of development/management that may be permitted on this land are:</p> <ul style="list-style-type: none"> <li>• <b>Residential water use facilities</b>, e.g., docks, piers, launching ramps/driveways, marine railways, boathouses, enclosed storage space, and nonpotable water intakes.</li> </ul>

	Zone	Definition
		<ul style="list-style-type: none"> <li>• <b>Shoreline access corridors</b>, e.g., pathways, wooden steps, walkways, or mulched paths that can include portable picnic tables and utility lines.</li> <li>• <b>Shoreline stabilization</b>, e.g., bioengineering, riprap and gabions, and retaining walls.</li> <li>• <b>Shoreline vegetation management.</b></li> </ul>

**2.1. Planning Goals**

The goals of the RLMP, listed below, are designed to implement TVA’s mission:

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

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

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

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

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

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

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

**2.2. Allocation Process**

Prior to allocating parcels, the TVA planning team reviewed the characteristics of each parcel (i.e., location and existing conditions). TVA also reviewed deeds of selected tracts previously sold to private entities to identify existing shoreline access rights. In addition, the planning team honored all existing commitments—that is, existing leases, licenses, and easements. 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 placed into the Sensitive Resource Management Zone. The remaining parcels were allocated based on reservoir planning objectives and public input. Decisions were made by consensus among the TVA planning team. During the allocation process, the planning team allocated the reservoir land to one of seven planning zones using the standard zone definitions for all TVA reservoirs (Table 1).

### **2.3. Committed Land**

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. Committed lands include the following: properties where TVA has granted landrights (easements, leases, etc.) for specific uses, properties where TVA has previously identified resources in need of protection, TVA Project Operations lands (transmission lines, dam reservations, etc.), and lands fronting national forest properties. 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 1,740 acres (85 percent) of the TVA land surrounding Douglas Reservoir are committed due to existing TVA or other public infrastructure projects. Agricultural licenses are not considered committed uses because they are an interim use of TVA land.

In the allocation process, if sensitive resources were identified on a committed parcel, that parcel remained zoned for the committed use unless an ongoing adverse impact was found. However, TVA approval would be required prior to future activities that could impact the identified sensitive resources.

### **2.4. Uncommitted Land**

Approximately 315 acres (15 percent) of the TVA land surrounding Douglas Reservoir are uncommitted. Technical specialists collected field data on many uncommitted parcels to identify areas containing sensitive resources. Representatives from TVA organizations including power generation, land and water stewardship, recreation, and economic development met to allocate the parcels of TVA public land into the seven planning zones. Maps that identified the location of known and potential sensitive resources (e.g., cultural resources, wetlands, and threatened and endangered species) were used in determining the capability and suitability for potential uses of each parcel.

### **2.5. Property Administration**

In the Douglas RLMP, TVA identifies the suitable uses for each tract of TVA-managed land around the Douglas Reservoir, consistent with TVA policy and guidelines and applicable laws and regulations. As administrators of TVA land, the Holston-Cherokee-Douglas Watershed Team will use the Douglas RLMP (Volume II) and the DNTRLMP EIS (Volume I) along with TVA policies and guidelines, to manage resources and to respond to requests for the use of TVA land. All inquiries about, or requests for, the use of TVA land on Douglas Reservoir should be made to TVA's Environmental Information Center at 1-800-882-5263.

Pursuant to the TVA Land Policy (Volume I, Appendix A), TVA would consider changing a land use designation outside of the normal planning process only for water-access purposes for industrial or commercial recreation operations on privately owned back-lying land or to implement TVA's Shoreline Management Policy (SMP).

The SMP is based on the Shoreline Management Initiative, by which TVA, with public input, examined its system for granting permits for docks and other shoreline development. The primary goal was to establish a Valley-wide policy that would improve the protection of shoreline and aquatic resources while allowing reasonable access to the water.

Public works/utility projects such as easements for pipelines, power or communication wires, roads or other public infrastructure proposed on any TVA public land that do not affect the zoned land use or sensitive resources would not require an allocation change so long as such projects would be compatible with the use of the allocated zone. Proposed public works/utility projects would be subject to a site-specific environmental review. Any other requests involving a departure from the planned uses would require the approval of the TVA Board of Directors.

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.

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### **3.0 DOUGLAS RESERVOIR REGIONAL OVERVIEW**

Douglas Reservoir lies in the southeastern section of the Ridge and Valley ecoregion located in the upper Tennessee Valley. This area falls entirely within the Southern Appalachian region, which is characterized by rugged topography, abundant rainfall, and a multitude of native plant and animal species. The amount of public national forest and park land in Southern Appalachia is greater than anywhere east of the Mississippi River.

#### **3.1. The Past**

According to archaeologists, humans first occupied this land around 12,000 years ago. This early population was initially nomadic, but later developed a seasonal subsistence based on the region's plant and animal resources. These abundant natural resources provided a diverse source of food, which included deer, nuts, fruits, a variety of small animals, fish, and shellfish. Between 8000 B.C. and about 500 B.C., there are signs of population growth, settlement, and interregional trade. By 500 B.C., stable villages had developed, which are evidenced by cultivated plants, dwelling structures, pottery, and burial mounds. By A.D. 1500, there is evidence of an increasingly sophisticated society, with town centers, fortified villages, an elite class, as well as smaller and scattered hamlets or communities. The Cherokee Nation eventually occupied this area of Southern Appalachia. Cherokee territory extended throughout Southern Appalachia and included parts of Virginia, North Carolina, Kentucky, Tennessee, Georgia, and South Carolina. There is record of at least 43 towns just before the outbreak of the Revolutionary War. Their society was gradually penetrated, constrained, and eventually removed by white Europeans whose livelihood was based on capitalistic trade, manufacturing, and agricultural production.

Many early routes used by these indigenous peoples are still in use today and were originally based on natural migration patterns. By instinct, herds of buffalo would find their way through this territory by selecting the paths of least resistance. One of their routes was through the mountain gap between present-day Zionville, North Carolina, and Trade, Tennessee. These buffalo trails became roads followed by hunters, then pioneers, and later became routes for stagecoaches or railroads.

The first European visitors to the area followed these paths through the mountain gaps and along the waterways and settled near the rivers. During the 1760s, Daniel Boone came through the Cumberland Gap, followed the buffalo trail, and visited the Watauga area as a hunter. In 1768, William Bean settled at the mouth of Boone's Creek, to be followed by friends and others from Virginia and North Carolina. Still others came down the Holston Valley out of Virginia. Jacob Brown, accompanied by a few families from North Carolina, moved to a camp on the banks of the Nolichucky River around 1772, becoming the first settlers in the Nolichucky River Valley and in the area that would become Greene County. In 1772, these first white settlers formed the Watauga Association, believed to be the first independent governmental body constituted west of the mountains and by American-born freeman. They acquired lands upon which they had settled from the Cherokees at the

same time others from North Carolina acquired a vast domain of Cherokee territory at the famous treaty site at Sycamore Shoals on the Watauga.

The immigration of European white settlers into this frontier led to new territorial claims, conflicts, and adjustments. Disagreement and disputes over boundaries were inevitable, and skirmishes between the Cherokee and the new settlers occurred. Land claims were complicated by land grants from Virginia, claims for settling and clearing virgin acres, and Lord Granville's North Carolina grants. Both Virginia and North Carolina formed counties in an area they each claimed. Settlers also formed their own state, the State of Franklin, which existed between 1784 and 1788 with its capitol located at Jonesborough. However, in the midst of this political turmoil, settlement continued. John Gilliland, in 1783, became the first white settler to claim land on the Pigeon River in what would be Cocke County; the first permanent settlement at Dandridge, in present-day Jefferson County, dates to 1783; and the first court of Sevier County, State of Franklin, was held at Samuel Newell's Station on Boyd's Creek in March 1785. In 1790, North Carolina ceded its western lands to the United States and these lands became the Southwest Territory, and later, in 1796, these lands became Tennessee, the 16th state to enter the Union.

The early 1800s saw growing settlements, the extension of commerce, and the development of transportation systems. In 1800, total population in the area of present-day Cocke, Greene, Jefferson, and Sevier counties was about 20,000. By 1830, the population of this area had almost doubled. Most settlers lived an agrarian lifestyle. For much of the period between 1800 and 1850, corn and livestock dominated agriculture in northeast Tennessee. The Elmwood Farm on the banks of the Nolichucky, established by Swiss immigrant Heinrich Ernst (Henry Earnest) in 1777, provides an excellent example of early 19th century agricultural production. Ernst grew wheat, corn, hay, and raised cattle, horses, and swine. Manufacturing at this time included cottage industries, mills, and ironworks. The most famous ironworks in the region was the Embree Ironworks established in the 1820s on the banks of the Nolichucky in nearby Washington County. There were smaller ironworks, such as the bloomary forge at Pigeon Forge and the Sweden Furnace. However, transportation problems stymied the export of local agricultural and industrial goods. Construction of railroads, however, bolstered these efforts. The East Tennessee and Virginia Railroad was chartered in 1848 in Greene County, Tennessee, and the railroad was completed in 1858, running between Knoxville and Bristol. Even with this railroad, though, local rivers remained the primary means of transportation until after the Civil War.

During the Civil War, East Tennessee was notable for mixed loyalties among its residents. It was not uncommon to have family members fighting on opposite sides of the conflict. While the area was not affected by major battles, there were numerous skirmishes. On Christmas Eve, 1863, at Dandridge, federal cavalry engaged Confederate soldiers from the command of General James Longstreet, who was moving to the Greeneville area for winter headquarters. Both Union and Confederate troops scavenged the area searching for food and supplies. By winter's end, the landscape was devastated. Even the buildings of church-supported Carson-Newman College, established in 1851, were vandalized. In



nearby Greene County, Confederate cavalry commander John Hunt Morgan was killed after he and his officers were surprised by a Union force from the command of Alvan C. Gillem.

After the war, reconstruction was difficult and progress slowed. During the latter part of the 19th century, the growth of railroads helped towns regain momentum and prosper. Cocke County saw the construction of the Cincinnati, Cumberland Gap, and Charleston Railroad. Because of this railroad, the county seat, Newport, moved to a new site overlooking the French Broad River. Another railroad, the Western North Carolina Railroad, was completed in 1882 and connected Cocke County to Knoxville and Asheville. The Knoxville, Sevierville and Eastern Railroad, built in Sevier County circa 1909, provided rail service from Sevierville to Knoxville.

The turn of the century saw increased progress, both in agricultural production and industry. The success of the region's agricultural production encouraged the establishment of canning factories, such as Stokely and Bush Brothers. Dairy farming gained in importance with the establishment of Pet Milk in Greeneville in 1928. Greeneville also developed into the region's most important tobacco market. Tobacco, along with beef, cattle, and hay remain important products in the region. Logging flourished in parts of Sevier County between 1900 and 1930. The American Zinc Company discovered zinc ore deposits in 1914, and between 1950 and 1995, Jefferson County held the distinction of being the largest producer of zinc ore in the United States.

While there were a few industries in this four-county area, agriculture remained the primary way to earn a living. With the coming of the Great Depression, much of the Southeast, including this region, was in poor condition. In 1933, the annual per capita income in the Valley region was \$168, and the birthrate was one-third above the national average. Levels of literacy were low and the labor force largely unskilled. Valley residents suffered from malnutrition; malaria affected up to 30 percent of the population in some areas. More than half the region's three-million people lived on farms, and of these, half lived on farms they did not own. Soil-depleting row crops such as corn, cotton, and tobacco provided most of the farm income. Because these crops left the topsoil exposed to winter rains, about half the Valley's open land was severely eroded or abandoned. Only three farms in 100 had electricity. Unchecked fires burned 10 percent of the region's woodlands every year, and poor logging practices had nearly ruined forests that once offered endless miles of timber.

To address the problems in the southeastern part of the country, Congress created TVA in May 1933. TVA's mission was to improve the quality of life for the people of the Tennessee Valley by providing navigation, flood control, and affordable electricity. TVA was also mandated to provide for the national defense. The Great Smoky Mountains National Park, another federal entity, was established soon after in 1934.

To provide power for defense industries during World War II, TVA built Douglas Dam in a record-setting 13 months. Because the dam threatened valuable farmland, there was considerable controversy concerning the facility's construction. Tennessee Senator Kenneth McKellar fought on behalf of the interests of the farms and the canning companies.

Jefferson County lost approximately 40 square miles of fertile farmland, but war demands for hydroelectric power took precedence. The power generated from Douglas Dam helped power the Manhattan Project at Oak Ridge.

At midcentury, the U.S. Census cited the following population data for the counties of the Douglas and Nolichucky reservoirs: Cocke, 22,991; Greene, 41,098; Jefferson, 19,667; and Sevier, 23,375.

The post-World War II economy of this four-county area rapidly changed from one largely based on agriculture to a more balanced combination of farming and industry. This change provided larger incomes for families of the area and made additional demands for trained personnel in business, industry, and agriculture. The wartime baby boom created need for more schools in the 1950s and 1960s. In the late 1970s, Interstate Highway construction improved access to the area, stimulating further growth and development. Homes “out in the county,” neighborhood shopping centers, fast food outlets, shopping plazas, office parks, and scattered residential subdivisions became more accessible, and residents demanded even better roads.

Douglas Reservoir is a multipurpose tributary storage project and is the only TVA project on the French Broad River. Like similar projects on other major Tennessee River tributaries, Douglas Reservoir is operated for many purposes including flood control, augmentation of flows for navigation, hydropower production, water supply, recreation, and aquatic ecology. Conveniently accessible to area residents, this reservoir provided an attractive site for second-home development and lake cottages. Improved transportation systems, along with increased post-war prosperity, also stimulated the rapid growth of tourism in the region. Highway 441 across the Smoky Mountains allowed tourists to travel from Pigeon Forge and Gatlinburg to Cherokee, North Carolina. Today, the Great Smoky Mountains National Park, Dollywood, the largest amusement park in Tennessee, and countless other attractions, attract nearly 12 million people to this region each year.

The estimated 2008 population figures for this four-county region include Cocke, 35,688; Greene, 66,157; Jefferson, 51,074; and Sevier, 84,835. Because of the beauty of the region, the quality of life, and economic and recreational opportunities, this area continues to attract people.

### **3.2. The Project**

Work began on Douglas Dam in February 1942 and was completed in less than 13 months—a world record for projects of equivalent size. Five hundred and twenty-five families were relocated in an unprecedented short period of 10 months. To protect the historic town of Dandridge, TVA constructed an earthen dike. Douglas is a concrete gravity dam. It is 202 feet high and stretches 1,705 feet across the French Broad River. Its current generating capacity is 165,600 kilowatts with four generating units. Initially the power plant had two generating units with an installed capacity of 30,000 kilowatts. Although operated primarily for power during World War II, Douglas forms an integral unit in the overall system

of multiple-purpose operation and aids in reducing main-river flood stages and stabilizing low-water flows.

Douglas Reservoir, at the top of the dam gates, has an area of more than 31,000 acres and lies primarily in Sevier, Jefferson, and Cocke counties in Tennessee. The impounded reservoir covers a rather flat valley averaging about 0.5 mile in width and extends into the foothills of the bordering ridges. The main river reservoir is 43 miles long, with sizable tributary arms in the valleys of the Nolichucky River, Flat Creek, McGuire Creek, Muddy Creek, and Indian Creek. The reservoir provides 561 miles of shoreline and about 28,420 acres for recreation activities. It has a flood storage capacity of over 1 million acre-feet.

### **3.3. The Present Shoreland**

#### *3.3.1. Physiographic Overview*

Douglas Reservoir is located within the Ridge and Valley ecoregion of Tennessee. This region occurs between the Blue Ridge Mountains on the east and to the Cumberland Plateau on the west and is a relatively low-lying area made up of roughly parallel ridges and valleys that were formed through extreme folding and faulting events in past geologic time (Griffith et al. 1998). Deciduous forests dominate the plant community with a mixture of evergreen and mixed evergreen-deciduous forests. These communities provide a variety of wildlife habitat interspersed with intense agriculture, urban sprawl, and industrial properties.

A majority of the lands in and around Douglas Reservoir are contained in the Southern Shale Valleys subregion, which consists of lowlands, rolling valleys, slopes, and hilly areas dominated by shale materials. Small farms and rural residences occur throughout where land is used for grazing or farming tobacco, corn, or hay. The remaining area around Douglas Reservoir is located within the Southern Limestone/Dolomite Valleys and the Rolling Hills subregion that is a heterogeneous region composed predominantly of limestone and cherty dolomite. Landforms are mostly undulating valleys and rounded ridges and hills, with many caves and springs. Soils vary in their productivity, and land cover includes oak-hickory and oak-pine forests, pasture, intensive agriculture, and urban and industrial (Griffith et al. 1998).

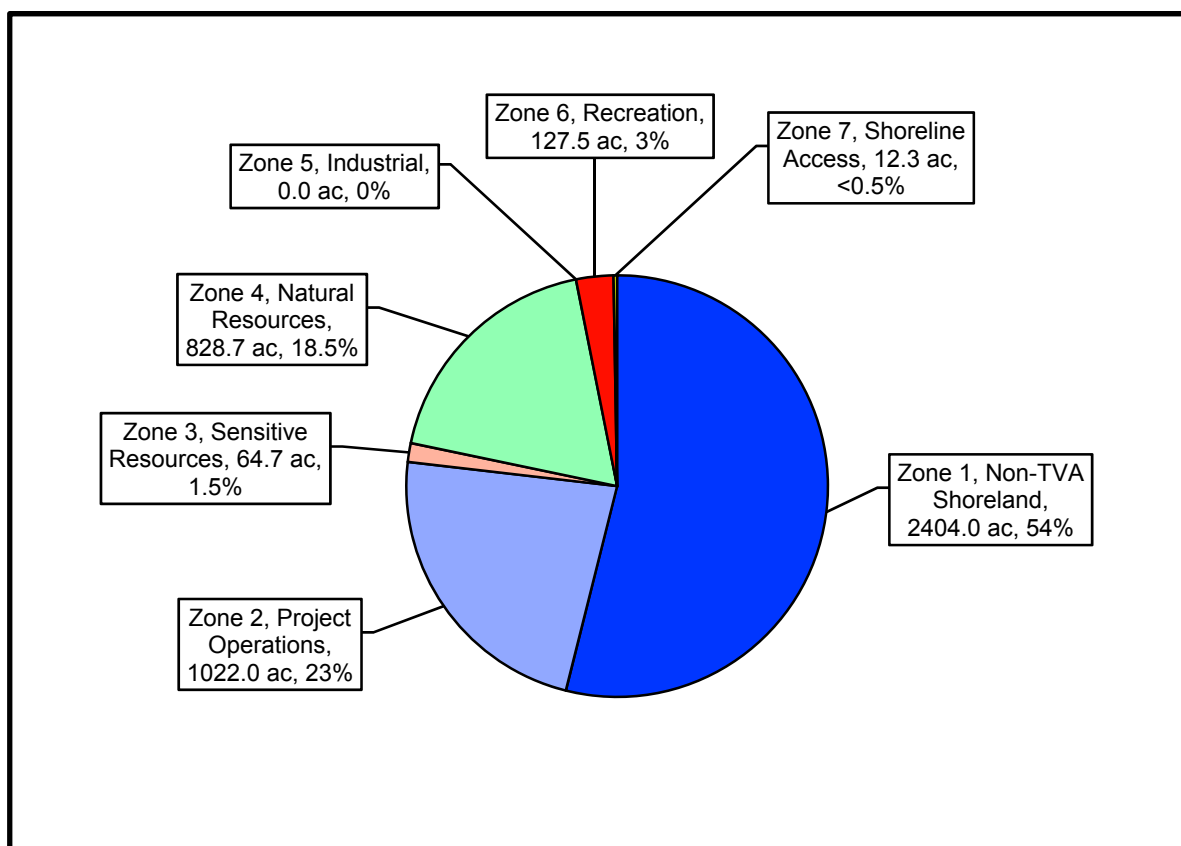
#### *3.3.2. Land Use and Prime Farmland*

The shoreland of Douglas Reservoir is composed of a variety of land uses, such as residential development, small communities, TWRA wildlife management areas, and a few moderate-sized farms. Residential development is the primary land use on Douglas Reservoir. New middle- and upper-income residential subdivisions are replacing farmland acreage and altering scenic vistas. Through a cooperative effort, TVA and TWRA provide opportunities for public reservoir access.

Douglas Reservoir has approximately 561 miles of shoreline, of which, 85 percent is Non-TVA Shoreland; 3 percent is owned and managed by TVA; 9 percent is owned by TVA and jointly managed; and less than 1 percent is TVA Shoreline Access. TVA owns approximately 2,055 acres of Douglas Reservoir shoreland, which total about 69 miles of

shoreline. These 2,055 acres consist of property that is below the 1,007.0 maximum shoreline contour (MSC), TVA-owned islands, and those properties extending to a back-lying severance line that separates private property from TVA property.

Figure 1 represents the percent of land acreage on Douglas Reservoir that is allocated to each land use zone. The largest zone allocation for TVA-owned lands was for Project Operations (Zone 2) comprising 23 percent. Natural Resource Management (Zone 4) comprised 18.5 percent, whereas Sensitive Resource Management (Zone 3) and Developed Recreation (Zone 6) ranged from 1 to 3 percent. There were less than 0.5 percent of acreage allocated to TVA Shoreline Access (Zone 7) and no shoreland allocations to Industrial (Zone 5). Privately owned, Non-TVA Shoreland (Zone 1) comprised 54 percent of all zones allocated for Douglas Reservoir; however, no new reservoir land was allocated to this zone.



**Figure 1. Percent of Douglas Reservoir Acreage Allocated by Zone**

Although the majority of shoreline on Douglas Reservoir is privately owned, TVA has a flowage easement to the 1,007.0 MSC. Any structures placed below the 1,007.0 MSC are subject to approval by TVA under 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 Shoreline Management Policy, see Section 2.5 of this RLMP.

Zone 2 (Project Operations) is all TVA reservoir land currently used for TVA operations and public works projects. There are 1,022 acres allocated to Zone 2 (Project Operations). The largest parcel allocated as Zone 2 is the Douglas Dam Reservation, which contains several buildings associated with power production from Douglas Reservoir. These structures include the Douglas Dam, the control building, the powerhouse, switchyard, and regional hydropower production maintenance building, as well as numerous power transmission lines. Additional facilities located on the reservation are a picnic area, public restrooms, and the Douglas Dam headwater and tailwater campgrounds.

The headwater campground offers 65 campsites of which 61 have water and electric hookup and two sites that are compliant with the Americans With Disability Act (ADA) and Guidelines. The headwater campground also offers restrooms with heated showers and flush toilets, dump station, picnic tables, swimming beach, boat ramp, walking trail, wildlife viewing area and bird-watching. The tailwater campground offers 62 campsites with water and electric hookup and two sites that are ADA compliant. The tailwater campground offers restrooms with heated showers and flush toilets, dump station, children’s play equipment, picnic tables and grills, group pavilion available by reservation, boat ramp, river fishing with an ADA-compliant fishing pier, bait and tackle shop, wildlife viewing area and bird-watching.

Also on the Dam Reservation is Trotter Bluff Small Wild Area. Trotter Bluff features walking trails through 30 acres of mature hardwood forest, limestone sinkholes, spring wildflowers, and vistas of the dam and river tailwater.

Zone 3 (Sensitive Resource Management) consists of lands 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. There are only five parcels allocated in Zone 3. Two of the five parcels were placed in Sensitive Resource Management due to historical churches on land that is back lying to TVA property. For example, Parcel 21 fronts the Historic French Broad Baptist Church. This Church is all that remains of Oak Grove, Jefferson County’s first settlement. The church, erected in 1919, was built from handmade bricks and stained glass imported from Czechoslovakia. A levee was built by presidential decree prior to the filling of Douglas Reservoir to preserve the church. TVA has implemented shoreline stabilization techniques fronting the church to prevent erosion and to protect this sensitive resource.

A total of 828.7 acres of 2,055 acres of TVA-owned property is allocated as Zone 4 (Natural Resource Conservation). Zone 4 makes up of the second-largest acreage of TVA fee-owned property. Zone 4 lands are 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.

The two largest parcels allocated as Zone 4 are Henderson Island State Wildlife Refuge and the Shady Grove Islands. Henderson Island State Wildlife Refuge (Parcel 13) is a 208-acre island, which spans from French Broad River Mile (FBRM) 42.0 to FBRM 44.4. TWRA has a license to manage this island as a waterfowl refuge and wildlife management unit. During state-regulated hunting seasons, the islands provide small game, game bird, and deer hunting opportunities. Public access to the refuge is closed in winter, typically mid-November to early February, to provide migrating waterfowl a place to feed and rest, undisturbed by human activities. TWRA access regulations are posted, which include year-round prohibition of overnight camping.

From FBRM 34.0 to FBRM 38.0 is the group of islands known as Shady Grove Islands (Parcel 4). These islands comprise approximately 385 acres and provide dispersed recreation opportunities. During state-regulated hunting seasons, the islands provide small game and deer hunting opportunities. Hunting and fishing are permissible consistent with state regulations.

Currently, there are no lands allocated as Zone 5 (Industrial) on Douglas Reservoir. These are lands managed for economic development including businesses in distribution/processing/assembly and light manufacturing.

Zone 6 (Developed Recreation) is the third-largest TVA fee-owned land use zone on Douglas Reservoir. These are TVA lands that have been developed for recreational purposes, such as public launching ramps or county parks. The Dandridge Municipal Park is behind the Dandridge Public Library, and it is located on Parcels 14 and 18. The park has picnic tables and an unmarked walking path along the shoreline. Despite the steep terrain, this area still provides dispersed recreation opportunities, such as bank fishing and swimming, along the shoreline.

Zone 7 (Shoreline Access) makes up the smallest land use zone on Douglas Reservoir. These 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 where the proposed use would not conflict with the interests of the public.

Douglas Reservoir contains 243 acres of identified prime farmland. Prime farmland has the best combination of soil physical and chemical characteristics for producing food and fiber and is protected from conversion to industrial and nonagricultural uses by the U.S. Department of Agriculture (USDA). These 243 acres occur in Zones 2 (Project Operations), 4 (Natural Resource Conservation), and 6 (Developed Recreation). The majority of these acres occur in Zone 2 where major soil disturbance could occur when TVA or other public facilities are constructed. However, once these facilities are established, they often remain intact for long periods, and large tracts of land remain without adverse impacts to prime farmlands. Lands in Zone 4 would have little or no soil disturbance and would have no adverse impacts to prime farmlands. Major soil disturbances could occur on Zone 6 (Developed Recreation), in specific locations, if recreation facilities were constructed.

Conversely, large areas could remain unaffected for more dispersed recreation management. For more information on land use and prime farmland, see Volume I, Sections 3.2 and 3.4.

### **3.3.3. Recreation**

TVA's Recreation Vision seeks to enhance recreation opportunities and address unmet recreation needs while managing resources on Douglas Reservoir. Developed recreation provides modern facilities and amenities on shoreline properties such as campgrounds, marinas, developed boat launches/ramps, and a myriad of day use facilities (picnic areas, swimming beaches, and fishing piers). These TVA lands are primarily allocated as Zone 6 (Developed Recreation) and as Zone 2 (Project Operations), because developed recreation facilities occur on dam reservations (see Table 1 for land use zone definitions).

Dispersed recreation areas opportunities provide passive, unconfined opportunities that are predominantly nature-based. In general, areas that provide dispersed recreation amenities contain one or more of the following: rustic trails for fishing access/walking/hiking/horseback riding, primitive campsites, primitive swimming and launching sites, and hunting and fishing areas. The TVA areas that provide dispersed recreation opportunities on TVA lands include many proposed Zone 2 parcels such as substations and dam reservations, Zone 3 and 4 parcels, and undeveloped Zone 6 parcels (see Table 1 for land use zone definitions).

Developed recreation facilities and amenities on Douglas Reservoir include 14 campgrounds and day use facilities with 22 boat ramps, seven marinas, four picnic areas, one golf course, four swimming pools, two swimming beaches, one fishing pier, and five playgrounds. Douglas Reservoir parcel descriptions (see Section 4.0) will further describe the management entity and management prescription of said recreation facilities that occur on these lands managed either by TVA or under contractual agreement to another government entity or commercial operator. Table 2 itemizes developed recreation area lands that are managed by TVA or are under contractual agreement for recreation purposes, their managing agency/entity, and their locations by parcel number. Table 2 does not itemize privately owned/operated recreation facilities that are adjacent to Douglas Reservoir shoreline, because they are private and beyond the scope of this RLMP.

**Table 2. Developed Recreation Areas on TVA Lands on Douglas Reservoir**

Recreation Area	Managing Entity	Location
Dam Reservation	TVA	Parcel 1
Sevier County Park/ Mountain Cove Marina	Sevier County	Parcel 61
Dandridge Ramp	TWRA	Parcel 44
Dandridge Point Resort and Marina	City of Dandridge	Parcel 43
Shady Grove Boat Ramp	TWRA and TVA	Parcel 9
Oak Grove Ramp	TVA	Parcel 19
Nina Ramp	TWRA	Parcel 23
Spring Creek Ramp	TWRA	Parcel 20
Leadvale Ramp	TWRA	Parcel 30
Walters Bridge Ramp	TWRA	Parcel 24
Rankin Ramp	TWRA	Parcel 32
Swann's Marina	Swann's Marina	Parcel 40

Dispersed recreation areas on Douglas Reservoir were assessed, and analysis of the data qualified several areas as beyond the biophysical “limits of acceptable change” (LAC). Areas that exceeded the LAC may be prioritized by the watershed team and proposed for improvements. These areas include Shady Grove Islands, Moonhill Bridge, Perry Branch, McGuire Creek Islands, Saddle Dam 10, and Shady Grove Boat Ramp. Since the analysis, Muddy Creek and Shady Grove Boat Ramp have had camping restrictions imposed to help mitigate the LAC. For more information on recreation, see Volume I, Section 3.3.

#### **3.3.4. Terrestrial Ecology**

Several forest types are found on TVA-owned lands around Douglas Reservoir. Oak-hickory forest is the most abundant forest type in the eastern U.S. (Flather et al. 1999) and in the project area. Locally, mesic cove hardwood forests and forested wetlands are also common. The numerous bird species that nest in these forest types include wild turkey, whip-poor-will, ruby-throated hummingbird, red-eyed vireo, wood thrush, gray catbird, black-throated green warbler, black-and-white warbler, ovenbird, hooded warbler, and scarlet tanager. Riparian corridors within deciduous forests in the area provide nesting habitat for Acadian flycatchers, northern parula, and Louisiana waterthrush. Many additional bird species migrate through and winter in the area. Common mammal species of deciduous forests include black bear, white-tailed deer, eastern red bat, eastern chipmunk, eastern gray and southern flying squirrels, white-footed mice, woodland voles, short-tailed shrew, raccoon, opossum, striped skunk, gray fox, and bobcat.

Evergreen and evergreen/deciduous forests account for less than 10 percent of the land cover on Douglas Reservoir. These habitats provide nesting habitat for woodland birds including pine, yellow-throated warblers, and great crested flycatcher. Birds that winter in this forest type include red-breasted and white-breasted nuthatches and dark-eyed junco. 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, northern fence lizard, and six-lined racerunner.

Herbaceous vegetation found in early successional habitats, including old fields, agricultural lands, and transmission line rights-of-way, accounts for almost a third of the land surrounding Douglas Reservoir. Early successional habitats provide habitat for a variety of bird species including eastern bluebird, northern mockingbird, eastern meadowlark, American crow, American kestrel, and red-tailed hawk. Amphibians and reptiles that use these habitats include spring peeper, chorus frog, and common garter snake.

The Douglas Reservoir provides abundant open water habitats, extensive mud flats (during drawdown), and associated riparian zones that are used by a variety of wildlife. Several great blue heron colonies exist on the reservoir as well as a number of nesting osprey. Double-crested cormorant and ring-billed and herring gulls are common throughout the reservoir.

Rankin Bottoms Wildlife Management Area, located at the junction of the Nolichucky and French Broad Rivers, provides habitat for a variety of wildlife including great blue heron, great egret, green heron, belted kingfisher, common yellowthroat, northern parula, prothonotary warbler, eastern kingbird, American goldfinch, northern rough-winged swallows, and song sparrows. Shallow embayments, especially those with emergent vegetation, provide foraging habitat for a variety of waterfowl including Canada geese, wood ducks, mallards, gadwall, green-winged teal, ring-necked duck, scaup, common goldeneye, bufflehead, and hooded merganser. This area is known for its fall aggregations of waterfowl and shorebirds including pectoral, least, spotted, stilt, semipalmated, and solitary sandpipers, killdeer, Wilson's snipe, dunlin, and greater and lesser yellowlegs. Uncommon species such as sanderlings, ruddy turnstone, western sandpiper, Baird's, and buff-breasted sandpipers are also attracted to the area. Local and regional birding groups regularly visit Rankin Bottoms to view the variety of birds that aggregate in this area. For more information on terrestrial ecology, see Volume I, Section 3.5.

### **3.3.5. *Invasive Nonnative Species***

Most of the planned TVA parcels around Douglas Reservoir have at least some invasive nonnative species. 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 harm to human health (USDA 2007). According to the Federal Noxious Weed List of 2006 (USDA 2007), there are no known federal noxious weeds reported from the lands around Douglas Reservoir. In addition, Southeastern Exotic Plant Pest Council (2006) provides a list of nonnative invasive species that could pose potential threats to native ecosystems and human health for each southeastern state. A review of the Tennessee Exotic Plant Pest Council (TN-EPPC) list (2001) revealed 15 (Rank I) species that pose a severe threat to native ecosystems observed around Douglas Reservoir. Plants listed as a severe threat include the following:

autumn olive, bush honeysuckle, Chinese lespedeza, Chinese privet, English ivy, garlic mustard, Japanese honeysuckle, Japanese stilt grass, Johnson grass, kudzu, mimosa, multiflora rose, oriental bittersweet, princess tree, and tree-of-heaven. Other nonnative species such as crown vetch, tall fescue, shrubby bushclover, Queen Anne's lace, periwinkle, and small carpet grass were also encountered. 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. All of the Rank 1 (severe threat) species are considered high priority to TVA (James 2002).

### 3.3.6. *Endangered and Threatened Species*

TVA biologists and natural resource specialists used the TVA Natural Heritage database to assess the endangered and threatened species within and around Douglas 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 NEPA and the Endangered Species Act (ESA). Database searches are based on the following criteria: (1) distance, (2) presence/absence of suitable habitats, (3) element occurrence rank values, and (4) species or type of element present. Accordingly, plants are assessed within a 5-mile radius, aquatic species within 10 miles, and terrestrial species within 3 miles. Federally listed and state-listed species identified during field reviews and/or results from the TVA Natural Heritage database are presented in Table 3.

**Table 3. Federally Listed and State-listed Species Within and Near Douglas Reservoir**

Common Name	Scientific Name	Federal Status	State Status	State Rank
Spreading Avens	<i>Geum radiatum</i>	LE	END	S1
Spreading Rockcress	<i>Arabis patens</i>	--	THR	S1
Bald Eagle	<i>Haliaeetus leucocephalus</i>	PROT	NMGT	S3
Piping Plover	<i>Charadrius melodus</i>	THR	THR	S2
Blue Sucker	<i>Cycleptus elongates</i>	--	THR	S2
Chucky Madtom	<i>Noturus crypticus</i>	C	END	S1
Highfin Carpsucker	<i>Carpionodes velifer</i>	--	NMGT	S2S3
Lake Sturgeon	<i>Acipenser fulvescens</i>	--	END	S1
Rosyface Shiner	<i>Notropis rubellus</i>	--	TRKD	S2
Snail Darter	<i>Percina tanasi</i>	LT	THR	S2S3
Tangerine Darter	<i>Percina aurantiaca</i>	--	NMGT	S3
Oyster Mussel	<i>Epioblasma capsaeformis</i>	LE	END	S1
Spectaclecase	<i>Cumberlandia monodonta</i>	C	TRKD	S2S3
Spiny Riversnail*	<i>Io fluviialis</i>	--	TRKD	S2

**Federal status abbreviations:** LE = Listed endangered; LT = Listed threatened; C = Candidate; THR = Threatened; PROT = Protected

**State status abbreviations:** END = Endangered; THR = Threatened; TRKD = Tracked as sensitive but has no legal status; NMGT = Listed in need of management

**State rank abbreviations:** S1 = Critically imperiled often with five or fewer occurrences; S2 = Imperiled; S3 = Vulnerable; S#S# = Occurrence numbers are uncertain

\* = Historical Record

### **3.3.7. Plants**

Field surveys and reviews of the TVA Natural Heritage database did not indicate any federally listed as endangered or threatened species within and around Douglas Reservoir. There is one federally listed species, spreading avens, known from the Great Smoky Mountains National Park in Sevier County. Even though this sensitive species occurs near Douglas Reservoir, no designated critical habitat for rare plants is present in or around the reservoir. For more information on plant communities, see Volume I, Section 3.6.

### **3.3.8. Terrestrial Wildlife**

Field surveys and reviews of the TVA heritage database showed that four federally listed and five Tennessee state-listed species occur within and around Douglas Reservoir. One cave known to support gray bats is located approximately 5 miles east of Douglas Reservoir. Bald eagles nest on Douglas Reservoir and downstream of the dam. No nests are currently on TVA lands; however, they have nested on TVA parcels in previous years. For more information on terrestrial wildlife, see Volume I, Section 3.6.

### **3.3.9. Aquatic Wildlife**

Review of the TVA Natural Heritage database indicated that 10 federally listed or state-listed species have been documented within the selected watersheds of Douglas Reservoir. For more information on aquatic wildlife, see Volume I, Section 3.6.

### **3.3.10. 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.

Field surveys were conducted to determine types and locations of wetlands on uncommitted parcels on each reservoir. Wetlands on uncommitted parcels were also categorized by their functions, sensitivity to disturbance, rarity, and irreplaceability. Based on estimates from the U.S. Fish and Wildlife Service National Wetlands Inventory maps combined with data sets developed for TVA's 2004 *Reservoir Operations Study*, Douglas Reservoir has approximately 4,684 acres of wetland habitat.

Wetlands on and near Douglas Reservoir are primarily riverine/floodplain forests located in the floodplains of rivers and streams. Douglas Reservoir has extensive areas of mudflats in Rankin Bottoms and in the main stem of the reservoir near the Interstate-40 bridge. High-quality Category 3 wetlands are present on Parcel 33 in Rankin Bottoms.

On Douglas Reservoir, 14 uncommitted parcels were field surveyed for wetlands. Of these 14 parcels, only three did not contain wetlands due to the steep topography or lack of hydrology. Shorelines on virtually all the parcels contain a scattered mix of scrub-shrub and

emergent vegetation. High-quality Category 3 forested wetlands are present on Parcels 28 and 47, due to a mix of forested/scrub-shrub/emergent habitats and the diversity of the plant communities. Common vegetation associated with forested wetlands on Douglas Reservoir includes box elder, sycamore, silver maple, persimmon, silky dogwood, and black willow. Vegetation representative of scrub-shrub and emergent wetlands on Douglas Reservoir includes spicebush, buttonbush, rice cutgrass, soft rush, swamp rosemallow, false nettle, smartweed, and sedges. The shoreline wetlands on Parcels 10, 25, 37, 45, 51, and 52 were all Category 2, moderate-quality wetlands due to their small size and relative lack of habitat diversity. For more information on wetland resources, see Volume I, Section 3.7.

### **3.3.11. Floodplains**

The area impacted by the RLMP extends from the lower limit of TVA's property at about FBRM 31.4 upstream to about FBRM 75.2 in Douglas Reservoir. Douglas Dam is located at FBRM 32.3. The 100-year floodplain is the area that would be inundated by the 100-year flood.

The 100-year flood elevations for the French Broad River downstream of Douglas Dam vary from 883.8 feet mean sea level (msl) (National Geodetic Vertical Datum Model of 1929 [NGVD 1929]) at FBRM 31.4 to elevation 885.6 feet msl (NGVD 1929) at the downstream side of Douglas Dam. The 500-year flood elevations for the French Broad River downstream of Douglas Dam vary from 892.1 feet msl (NGVD 1929) at FBRM 31.4 to elevation 894.1 feet msl (NGVD 1929) at the downstream side of Douglas Dam. Tabulations of the 100- and 500-year flood elevations are included in Volume I, Appendix E, Tables E-3 and E-4.

In Douglas Reservoir, the 100-year flood elevations for the French Broad River vary from 1,002.6 feet msl (NGVD 1929) at Douglas Dam to elevation 1,022.5-feet msl (NGVD 1929) at the upper end of TVA's landrights at about FBRM 75.2. The 500-year flood elevations for the French Broad River vary from elevation 1,003.0 feet msl (NGVD 1929) at Douglas Dam to elevation 1,026.7 feet msl (NGVD 1929) at the upper end of TVA's landrights. Tabulations of the 100- and 500-year flood elevations are included Volume I, Appendix E, Tables E-3 and E-4.

### **3.3.12. Cultural and Historic Resources**

Prior to the creation of Douglas Reservoir, archaeological sites along this section of the French Broad River received the attention of early antiquarians (Moore 1915; Thomas 1891; Thruston 1897). These antiquarians focused on identifying Indian mounds and retrieving museum-quality artifacts for display in Victorian-era museums. As World War II necessitated the construction of Douglas Reservoir at an accelerated schedule, very little archaeological research was conducted in comparison to Chickamauga, Norris, Pickwick, Watts Bar, and Wheeler reservoirs. The University of Tennessee Anthropology Department was allowed to divert labor from the Watts Bar archaeological excavations to investigate

two Mississippian villages, one located on Zimmerman Island and one on Fain (or Fain's) Island (Lyon 1996).

Very little archaeological work was conducted on Douglas Reservoir from the completion of the dam until the 1970s. One archaeological survey was performed for a potential steam plant on Taylor's Bend in 1973 (McCollough 1973). There was again a lull in archaeological work until the late 1990s at which time multiple small-scale archaeological surveys occurred (Ahlman 1999; Garrow 2006; Olinger 1997; Manning 2005; 2006; Meeks 2005; Polhemus 2000).

In 2002, TVA conducted an archaeological survey of TVA fee-owned land below summer pool (Stanyard and Holland 2003). The survey resulted in the identification of 100 previously unrecorded archaeological sites, and five previously recorded sites were revisited. In general, the archaeological sites consist of prehistoric camps, villages, and mounds spanning 12,000 years of prehistory; historic sites include farmsteads and early industrial structures dating to the mid-18th to early 20th century. Of the 100 archaeological sites identified during the 2002 survey, 32 were determined potentially eligible for the National Register of Historic Places (NRHP). No archaeological sites on or near Douglas Reservoir have been listed in the NRHP to date. For more information on cultural and historic resource review process, see Volume I, Section 3.9.

### **3.3.13. *Managed Areas and Sensitive Ecological 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, USDA Forest Service, State of Tennessee, Greene County) 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. No ecologically significant sites are indicated on the Douglas Reservoir lands. NRI streams are free-flowing segments of rivers recognized by the National Park Service as possessing remarkable natural or cultural values.

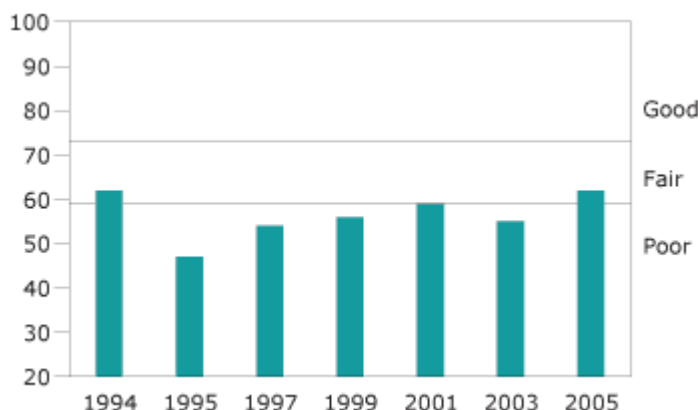
The TVA Natural Heritage Database indicated nine managed areas on or immediately adjacent to Douglas Reservoir. These include: Trotter Bluff TVA Small Wild Area, the Lower French Broad and Lower Holston River Nonessential Experimental Population Status area, the French Broad River (one segment NRI-listed and one segment designated a State Scenic River), Rankin Bottom State Wildlife Management Area, Henderson Island Refuge, Dandridge Municipal Park, and Sevier County Park. For more information on managed areas and sensitive ecological sites, see Volume I, Section 3.10.

### 3.3.14. Water Quality

Douglas Reservoir was monitored on an annual basis until 1995, when it went to a two-year monitoring cycle. Because collection methods and rating criteria for the fish and benthic communities were different prior to 1994, those results cannot be compared directly to samples taken using current methods and therefore are not presented in this document. Additionally, since 2001, physical and chemical (e.g., dissolved oxygen and chlorophyll) monitoring has been conducted on an annual basis to meet other data collection and operational needs.

Figure 2 shows the reservoir ecological health scores for Douglas Reservoir from 1994 through 2005. Areas sampled on Douglas Reservoir include the forebay at FBRM 34.5 and the transition zone at FBRM 51.0.

The overall ecological condition for Douglas Reservoir has rated either “poor” or at the low end of the “fair” range throughout the monitoring period. A consistent issue is very low dissolved oxygen concentrations in the bottom half of the water column at both sampling locations. TVA has installed aeration equipment to add oxygen to the deep water near the dam and to improve conditions downstream from the dam in the French Broad River.



**Figure 2. Douglas Reservoir Ecological Health Ratings, 1994-2005**

The 2005 scores were consistent with findings from previous years; dissolved oxygen concentrations at both the forebay and transition zone monitoring locations were very low during the summer in the bottom half of the water column. Chlorophyll rated good at the forebay and poor at the transition zone monitoring location. Summer chlorophyll averages are generally higher at the transition zone site, rating poor in most years. Chlorophyll ratings at the forebay have been variable, rating good or fair, except in 2003, when it rated poor. Rainfall and the resulting runoff have played a significant role in year-to-year variation. Sediment quality rated good at both locations. No polychlorinated biphenyls or pesticides were detected, and the concentrations of metals were within expected background levels. Low levels of chlordane, a pesticide previously used to control termites

and crop pests, were detected in sediment samples from the transition zone monitoring location in some previous years and only in 1999 at the forebay, causing sediment quality to rate fair. For more information on Reservoir Ecological Health Monitoring Program, see Volume I, Section 3.12.

### **3.3.15. 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. Water discharged into the tailwaters can be very cold and have low dissolved oxygen content, impairing water quality. In turn, this stretch of river directly downstream of dams can have less diverse aquatic communities.

TVA has improved tailwater water quality below many of its hydroelectric facilities, including Douglas Reservoir. This has been accomplished by the establishment of the Reservoir Releases Improvement Program, which was begun officially in 1991 when the TVA Board of Directors 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). These techniques helped to mimic more natural riverine conditions in TVA tailwaters.

#### **3.3.15.1. Reservoir Vital Signs**

The Reservoir Vital Signs Monitoring Program (RVSMMP) activities focus 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 RVSMMP data include annual fish sampling on tributary reservoirs from 1999-2007 (2008 data are not yet available) on 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 Douglas Reservoir. Samples are usually taken on a two-year cycle. The overall ecological condition in Douglas Reservoir rated poor in 2007. Douglas has rated either poor or at the low end of the fair range since 1994. The fish community rated good at the forebay and fair at the transition zone monitoring location. As in previous years, TVA collected a good number and variety of healthy fish at the forebay. The fish community received its lowest score to date at the transition zone location because the catch rate was relatively low and fewer fish species were collected than normal. Sampling results at the transition zone location were affected by low water levels, a result of the extremely dry conditions.

The EPT Index is named for three orders of aquatic insects that are common in the benthic macroinvertebrate community: *Ephemeroptera* (mayflies), *Plecoptera* (stoneflies), and

*Trichoptera* (caddisflies). The EPT Index is based on the premise that high-quality streams usually have the greatest species richness. The greater the pollution, the lower the species richness expected. The index totals the number of EPT families and assigns an EPT classification ranging from 0-5 (poor) to >13 (good).

Benthic communities were sampled in the forebay and transition zone sites on Douglas Reservoir. Benthic community scores ranged from “poor” to “fair” over the five years sampled, most recently scoring “fair” in 2007 at both sampling sites (Table 4). For more information on RVSMF data for the Douglas-Nolichucky tributary reservoirs, see Volume I, Section 3.13.

**Table 4. Reservoir Fish Assemblage Index and Benthic Community Scores Collected Between 1999 and 2007 in the Douglas Reservoir as Part of the Reservoir Vital Signs Monitoring Program**

Year	RFAI Scores		Benthic Community Scores	
	Forebay	Transition Zone	Forebay	Transition Zone
1999	Fair	Good	Fair	Fair
2001	Fair	Good	Fair	Fair
2003	Good	Good	Poor	Poor
2005	Good	Good	Poor	Poor
2007	Good	Fair	Fair	Fair
<b>RFAI Score</b>		<b>12-28</b>	<b>29-44</b>	<b>45-60</b>
<b>Community Condition</b>		<b>Poor</b>	<b>Fair</b>	<b>Good</b>
<b>Benthic Community Score</b>		<b>7-16</b>	<b>17-26</b>	<b>27-35</b>
<b>Community Condition</b>		<b>Poor</b>	<b>Fair</b>	<b>Good</b>

### 3.3.15.2. Sport Fishing Index

A Sport Fishing Index (SFI) has been developed to measure sport fishing quality for various species in Tennessee and Cumberland Valley reservoirs (Hickman 2000). The SFI is based on the results of fish population sampling by TVA and state resources agencies and, when available, results of angler success as measured by state resource agencies (i.e., bass tournament results and creel surveys). The SFI score ranges from a high of 60 (excellent) to a low of 20 (very poor). SFI scores for Douglas Reservoir are presented in Table 5.



**Table 5. 2007 Sport Fishing Index Scores for Selected Sport Fish Species on Douglas Reservoir**

<b>Species</b>	<b>Score</b>	<b>Valley-Wide Average</b>
<b>Black Bass</b>	31	36
<b>Black Crappie</b>	32	34
<b>Bluegill</b>	30	27
<b>Channel Catfish</b>	31	33
<b>Crappie</b>	42	36
<b>Largemouth Bass</b>	33	33
<b>Sauger</b>	24	24
<b>Smallmouth Bass</b>	24	30
<b>Walleye</b>	32	34
<b>White Bass</b>	44	38
<b>White Crappie</b>	28	28

### **3.4. The Future**

As unmanaged growth and development increase, there is impact on the natural resources that contribute to the quality of life that draws people to the Douglas Reservoir. This quality of life will be impacted by the success or failure to achieve an appropriate balance between development and the protection of natural resources and could decrease the eco-tourism and recreational value of Douglas Reservoir.

Douglas Reservoir's future will be affected by trends and issues that extend far beyond its shoreline. Population growth within the upper east Tennessee region, land development and community planning practices, growing tourism, recreational economy, a growing diversity of recreational pursuits, as well as developments in upstream portions of the Nolichucky and French Broad watersheds all will affect the quality of experience Douglas Reservoir provides. Close attention must be given to protecting shorelands with unique or special qualities, properly managing and conserving the natural resources of the shoreline, and protecting different uses so the public can enjoy them.

### **3.5. Parcel Allocations**

The parcel allocations for Douglas Reservoir can be found below in Tables 6a and 6b. These tables constitute the Parcel Information Matrix, which coincides with the Douglas Reservoir map. The tables identify each parcel number, allocation zone, number of acres, and parcel description. Non-TVA Shoreland (Zone 1) does not occur on Douglas Reservoir and is not included in these tables because it is shoreland that TVA does not own in fee or land that TVA never purchased.

**Table 6a. Douglas Reservoir Parcel Allocations**

Parcel Number	Zone Allocations							DOUGLAS RESERVOIR - Panel 1 of 2 Description
	Acres	2	3	4	5	6	7	
1	579.4	●						Douglas Dam Reservation
2	0.0					●		Lakeshore RV Park
3	0.4						●	Shoreline Access
4	384.5			●				Shady Grove Islands
5	1.1	●						Hwy 139 Fragment 1
6	0.6					●		Shady Grove Marginal Strip
7	1.3						●	Shoreline Access
8	2.7	●						Hwy 139 Fragment 2
9	0.4					●		Shady Grove Access
10	1.4					●		Shady Grove Marginal Strip
11	1.4						●	Shoreline Access
12	2.6			●				Mulberry Way
13	208.1			●				Henderson Island Refuge
14	2.2					●		Dandridge Municipal Park
15	1.0	●						Knoxville Dike
16	2.3	●						Dandridge Dike
17	2.4	●						Newport Dike
18	0.6					●		Dandridge Municipal Park
19	4.8					●		Oak Grove Ramp
41	8.2						●	Reid Town
42	78.4					●		Indian Creek
43	5.5					●		Marginal Strip (Fronting The Point Marina & Resort)
44	25.5					●		Dandridge Ramp- TWRA
45	30.8			●				Hwy 92 Dandridge Access
46	4.0			●				Islands
47	36.3		●					Sandy Ridge
48	20.0			●				Moon Hill Bridge
49	0.3		●					AME Church
50	14.5			●				McGuire Creek Islands
51	29.8			●				Perry Branch (Fragmented)
52	111.7			●				Catlet's Shoreline
53	2.5			●				Flat Creek (Marginal Strip)
54	121.9	●						Saddle Dam 10
55	3.0			●				Flat Creek (Marginal Strip)
56	0.6					●		Flat Creek Access
57	3.8	●						Saddle Dam 9
58	3.5	●						Saddle Dam 8
59	13.4	●						Saddle Dam 7
60	0.7					●		Providence Rd. Access- TWRA
61	284.8	●						Saddle Dams 1-6 (Sevier Co. Park)
62	2.2			●				Islands
<b>Total</b>	1998.3	Total Acreage for Douglas Reservoir = 2,055						
	<b>Committed Land</b> - Under current agreement, used for project operations, with sensitive resources, or fronting public recreation land.							
	<b>Uncommitted Land</b> - Land that is considered "Plannable".							

**Table 6b. Douglas Reservoir Parcel Allocations**

Parcel Number	Zone Allocations							DOUGLAS RESERVOIR - Panel 2 of 2 Description
	Acres	2	3	4	5	6	7	
20	0.2					●		Spring Creek- TWRA
21	1.2		●					French Broad Church
22	5.4			●				Swann's Bluff
23	1.0					●		Nina Access- TWRA
24	3.0					●		Walters Bridge North Access- TWRA
25	1.0			●				Leadvale East
26	1.7	●						Leadvale Road/Bridge
27	0.2			●				Leadvale Creek
28	10.2		●					Leadvale Creek
29	0.6	●						Leadvale Creek
30	0.3					●		Leadvale Access- TWRA
31	0.5			●				Nolichucky Confluence
32	2.3					●		Rankin Access- TWRA
33	16.7		●					Rankin Bottoms Wildlife
34	1.0	●						Rankin Bridge
35	3.1			●				Rankin Rail Shoreline
36	4.6			●				Leadville South Strip
37	0.1			●				25E
38	0.3						●	25E - Sam Odel Store
38a	0.4			●				Union Church Cemetery
39	2.3	●						25E Swann's Bridge
40	0.7					●		Swanns Marina and Campground
<b>Total</b>	56.7	Total Acreage for Douglas Reservoir = 2,055						
	<b>Committed Land</b> - Under current agreement, used for project operations, with sensitive resources, or fronting public recreation land.							
	<b>Uncommitted Land</b> - Land that is considered "Plannable".							

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## 4.0 PARCEL DESCRIPTIONS

(See exhibit map)

Note: Parcel descriptions represent the total acreage listed that lies above the 1,002.0-foot median shoreline contour. Each parcel description is discussed in four sections: General Description, Recreation, Sensitive Resources, and Easements/Lease Agreements/Licenses/Transfers. In cases where the recreation section is absent, recreation activities are not compatible with the use or allocation of the parcel.

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### Douglas Reservoir Parcel Descriptions

**Parcel 1**                      **579.4 Acres**  
**Common Name:**        **Douglas Dam Reservation**  
**Allocation:**            **Zone 2 (Project Operations)**  
**Hydrological Unit:**    **TN-06010107-020, TN-06010107-010**  
**County:**                **Sevier, Tennessee**  
**Stream:**                 *French Broad River Mile 31.4-32.9 Left and Right Banks*

General Description:

Douglas Dam is 202 feet high and stretches 1,705 feet across the French Broad River. The generating capacity of Douglas's four units combined is 165,600 kilowatts of electricity. TVA has installed surface water pumps and oxygen injection systems to improve the downstream oxygen levels from the dam for aquatic life. This parcel contains 149 acres identified as being prime farmland.

Private water use facilities will not be considered.

Recreation:

Douglas Dam Headwater Campground offers 65 campsites of which 61 have water and electric hookup and two are ADA-compatible sites. This campground offers restrooms with heated showers, flush toilets, dump station, picnic tables, swimming beach, boat ramp, walking trail, wildlife viewing area, and bird watching.

Douglas Dam Tailwater Campground offers 62 campsites with water and electric hookup and two ADA-compatible sites. It also offers restrooms with heated showers, flush toilets, dump station, children's play equipment, picnic tables, grills, group pavilion available by reservation, boat ramp, river fishing with fishing pier, bait and tackle shop, wildlife viewing area, and bird watching.

Trotter Bluff Small Wild Area features walking trails through 30 acres of mature hardwood forest, limestone sinkholes, spring wildflowers, and vistas of the dam and river tailwater.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- Sevier County has a permanent road easement crossing the middle of this parcel for Old State Highway 66 (Douglas Dam Road).
- Appalachian Electric Service has a utility license for transmission lines crossing the middle of this parcel.
- South Central Bell has a utility license for telephone on the southwestern section of this parcel.
- A private agriculture license occurs on the northern half of this parcel for hay only.
- Sevierville Water Systems has a utility license across the southern section of this parcel for a water line.

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*Prior Forecast: Dam Reservation and Power Transmission System*

**Parcel 2**                    **0.01 Acre**  
**Common Name:**       **Lakeshore Recreational Vehicle (RV) Park**  
**Allocation:**           **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**   **TN-06010107-010**  
**County:**               **Jefferson, Tennessee**  
**Stream:**                *French Broad River Mile 34.5 Right*

General Description:

TVA is currently processing a land use agreement for Parcel 2 for a commercial recreation license to Lakeshore RV Park. This parcel was placed in Zone 6 to reflect the request for developed recreation of this TVA-managed land.

Private water use facilities will not be considered.

Recreation:

If approved, Lakeshore RV Park will consist of a commercial campground, a docking facility, and gravel parking lot.

Sensitive Resources:

A field review indicated a small cluster of scrub-shrub vegetation on the shoreline of this parcel. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- If approved, Lakeshore RV Park will have a commercial license on the entire parcel.

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*Prior Forecast: No Forecast*

**Parcel 3**                      **0.4 Acre**  
**Common Name:**        **Shady Grove Shoreline Access**  
**Allocation:**            **Zone 7 (Shoreline Access)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
*Stream:*                 *French Broad River Mile 38.0 Right*

General Description:

This parcel consists of a narrow wooded strip along the shoreline. This parcel was placed in Zone 7 to reflect deeded ingress and egress rights associated with back-lying residential property. TVA seeks cooperative opportunities with back-lying property owners to improve shoreline conditions by establishing more vegetation.

Private water use facilities will be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: No Forecast*

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**Parcel 4**                      **384.5 Acres**  
**Common Name:**        **Shady Grove Islands**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
*Stream:*                 *French Broad River Mile 34.0-38.0 Islands*

General Description:

Forest cover on the islands is generally correlated with the topography; the flatter areas are old fields, which were planted to pine or reverted naturally to pure and mixed stands of pine, Eastern red cedar, and hardwoods, and the steeper portions are primarily upland hardwoods. Most of the old-field areas have been depleted of productivity and are generally in poor condition. The old fields are occupied by shortleaf pine (36 acres) that was planted in the mid 1960s; Virginia pine (41 acres), mixed Virginia and shortleaf pine (45 acres), and mixed pine, eastern red cedar, and hardwoods (107 acres). Tree size varies from poles to saw-timber. Upland hardwood occupies the steeper slopes and totals 168 acres in seven stands. Stand size varies from poles to large saw-timber, and the dominant species are black oak, scarlet oak, hickory, sugar maple, white oak, yellow poplar, white ash, and chestnut oak. The shoreline vegetation provides a riparian buffer to the reservoir, and the islands are beneficial to wildlife and water quality in the region.

Private water use facilities will not be considered.

Recreation:

The Shady Grove Islands were placed in Zone 4 to reflect the dispersed recreation opportunities. During state-regulated hunting seasons, the islands provide small game and deer hunting opportunities. Hunting and fishing are permissible consistent with state regulations.

Cumulatively, the islands contain more than 30 sites impacted by camping and other recreation activities. The severity of the impacts is considered at or above the limits of acceptable change (LAC).

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- MSG G Limited Liability Corporation has a utility license for a sewer line and outfall across the northeastern portion of the parcel.

*Prior Forecast: Public Recreation*

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**Parcel 5**                      **1.1 Acres**  
**Common Name:**        **Highway 139 Fragment (1)**  
**Allocation:**            **Zone 2 (Project Operations)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                *French Broad River Mile 38.4 Right*

General Description:

This is a small wooded strip on the north side of Highway 139 near Shady Grove boat ramp. This parcel is not connected with the reservoir.

Private water use facilities will not be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- Jefferson County has a permanent highway easement on this parcel for Highway 139.

*Prior Forecast: Reservoir Operations*

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**Parcel 6**                      **0.6 Acre**  
**Common Name:**        **Shady Grove Marginal Strip**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
*Stream:*                    *French Broad River Mile 38.4 Right*

General Description:

This parcel consists of a wooded strip along the shoreline. The shoreline vegetation provides a riparian buffer to the reservoir and is beneficial to wildlife and water quality in the region.

Private water use facilities will not be considered.

Recreation:

This parcel was placed in Zone 6 to reflect the recreation easement with Tennessee Wildlife Resources Agency (TWRA) to manage this parcel for public recreation. TWRA regulations, including the prohibition of camping, are not posted, but they apply.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- TWRA has a permanent recreation easement on this entire parcel.
- TVA previously transferred the back-lying property to TWRA for administration.
- Jefferson County has a permanent highway easement that crosses the middle of this parcel for Highway 139.
- Appalachian Electric Service has a utility license for transmission lines crossing the middle of this parcel.

*Prior Forecast: Reservoir Operations*

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**Parcel 7**                      **1.3 Acres**  
**Common Name:**        **Shady Grove Shoreline Access**  
**Allocation:**            **Zone 7 (Shoreline Access)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
*Stream:*                    *French Broad River Mile 38.6 Right*

General Description:

This parcel consists of a partially wooded riparian strip along the shoreline. This parcel was placed in Zone 7 to reflect deeded ingress and egress rights associated with back-lying residential property. TVA seeks cooperative opportunities with back-lying property owners

to improve shoreline conditions by establishing more vegetation. The shoreline vegetation provides a riparian buffer to the reservoir.

This parcel contains 0.9 acre identified as being prime farmland.

Private water use facilities will be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- Jefferson County has a permanent highway easement that crosses the middle of this parcel for Highway 139.
- Appalachian Electric Service has a utility license for transmission lines crossing the middle of this parcel.

*Prior Forecast: No Forecast*

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**Parcel 8**                      **2.7 Acres**  
**Common Name:**        **Highway 139 Fragment (2)**  
**Allocation:**            **Zone 2 (Project Operations)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *French Broad River Mile 38.7-38.8 Right*

General Description:

This is a narrow landlocked parcel located adjacent to Highway 139. This parcel is not connected with the reservoir.

Private water use facilities will not be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- Jefferson County has a permanent highway easement that runs the southern portion of this parcel for Highway 139.

*Prior Forecast: Reservoir Operations*

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**Parcel 9**                      **0.4 Acre**  
**Common Name:**        **Shady Grove Access**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
*Stream:*                 *French Broad River Mile 38.7 Island*

General Description:

This small parcel contains three paved boat ramps, which were built and maintained through a partnership with TWRA.

Private water use facilities will not be considered.

Recreation:

Of the three paved boat ramps, one ramp is a high water ramp, and the other two are low water ramps. This parcel provides access for hunting, fishing, and other recreation activities associated with dispersed recreation. Hunting and fishing are permitted, consistent with state regulations.

Overnight camping is prohibited due to the severity of the impacts where camping formerly occurred. The severity of impacts is considered at or above the LAC. Night use of boat ramps and fishing areas are allowed.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Reservoir Operations*

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**Parcel 10**                      **1.4 Acres**  
**Common Name:**        **Shady Grove Marginal Strip**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
*Stream:*                 *French Broad River Mile 38.8 Right*

General Description:

This parcel consists of a wooded strip along the shoreline. It was placed in Zone 6 to reflect the recreation easement with TWRA. The shoreline vegetation provides a riparian buffer to the reservoir and is beneficial to wildlife and water quality in the region.

Private water use facilities will not be considered.

Recreation:

TWRA manages this parcel for public recreation. TWRA regulations, including the prohibition of camping, are not posted, but they apply.

Sensitive Resources:

Field surveys did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- TWRA has a permanent recreation easement on this entire parcel.
- TVA previously transferred the back-lying property to TWRA for administration.

*Prior Forecast: No Forecast*

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**Parcel 11**                      **1.4 Acres**  
**Common Name:**        **Boulder Crest Shoreline Access**  
**Allocation:**            **Zone 7 (Shoreline Access)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                *French Broad River Mile 38.8 Right*

General Description:

This parcel consists of a wooded strip along the shoreline fronting Boulder Crest Subdivision. This parcel was placed in Zone 7 to reflect deeded ingress and egress rights associated with back-lying residential property. A TVA Vegetation Management Plan is required on this parcel.

Private water use facilities will be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: No Forecast*

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**Parcel 12**                    **2.6 Acres**  
**Common Name:**        **Mulberry Way**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
*Stream:*                 *French Broad River Mile 39.2 Right*

General Description:

This parcel was placed in Zone 4 to reflect the dispersed recreation opportunities. The shoreline vegetation provides a riparian buffer to the reservoir and is beneficial to wildlife and water quality in the region.

Private water use facilities will not be considered.

Recreation:

Hunting and fishing are permitted, consistent with state regulations. An informal dirt/gravel boat launch occurs on the parcel. It is posted that motorized use and overnight use are prohibited.

Sensitive Resources:

Field surveys did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: No Forecast*

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**Parcel 13**                    **208.1 Acres**  
**Common Name:**        **Henderson Island Refuge**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
*Stream:*                 *French Broad River Mile 42.0-44.4 Island*

General Description:

TWRA actively manages this parcel for wildlife habitat by implementing prescribed burns, planting food plots, and planting warm season grasses. The island consists of various stands of hardwood, pine, and wetland species. A steep rocky bluff occurs on the island along the main channel of the river. A seasonal pond on the parcel is managed as a fish-rearing pond and provides habitat for waterfowl. The shoreline vegetation provides a riparian buffer to the reservoir, and the island is beneficial to wildlife and water quality in the region. This parcel contains 47.7 acres identified as being prime farmland.

Private water use facilities will not be considered.

Recreation:

Henderson Island State Wildlife Refuge is licensed to TWRA and managed as a waterfowl refuge and wildlife management unit. During state-regulated hunting seasons, the islands provide small game, game bird, and deer hunting opportunities. Public access to the refuge is closed in winter, typically mid-November to early February, to provide migrating waterfowl a place to feed and rest, undisturbed by human activities. TWRA access regulations are posted, which include year-round prohibition of overnight camping.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- TWRA has a waterfowl habitat management license on this entire parcel.

*Prior Forecast: Public Recreation, Reservoir Operation*

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**Parcel 14**                    **2.2 Acres**  
**Common Name:**        **Dandridge Municipal Park**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                *French Broad River Mile 44.5-45.1 Right*

General Description:

This parcel consists of a wooded strip along the shoreline with a steep slope. It is fronting land transferred to the Town of Dandridge for a municipal park. The shoreline vegetation provides a riparian buffer to the reservoir and is beneficial to wildlife and water quality in the region.

Private water use facilities will not be considered.

Recreation:

The municipal park is developed behind the Dandridge Public Library. The park has picnic tables and an unmarked walking path along the shoreline.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- TVA previously transferred the back-lying property to the Town of Dandridge for recreation purposes.

- The Town of Dandridge has a permanent recreation easement over the entire parcel.

*Prior Forecast: No Forecast*

**Parcel 15**                      **1.0 Acre**  
**Common Name:**        **Knoxville Dike**  
**Allocation:**            **Zone 2 (Project Operations)**  
**Hydrological Unit:**   **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                *French Broad River Mile 44.9 Right (behind Parcel 14)*

General Description:

This parcel consists of a dike located approximately 0.25 mile from the reservoir. President Roosevelt issued an executive order (EO) to build the dike in order to protect Dandridge from the flooding waters of Douglas Reservoir. The Knoxville Dike was completed in 1942.

Private water use facilities will not be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Reservoir Operations*

**Parcel 16**                      **2.3 Acres**  
**Common Name:**        **Dandridge Dike**  
**Allocation:**            **Zone 2 (Project Operations)**  
**Hydrological Unit:**   **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                *French Broad River Mile 45.2 Right*

General Description:

President Roosevelt issued an EO to build the dike in order to protect Dandridge from the flooding waters of Douglas Reservoir. Dandridge Dike was completed in 1942.

Private water use facilities will not be considered.

Recreation:

This parcel provides opportunities associated with dispersed recreation, such as bank fishing, primitive canoe/kayak access, scenic/wildlife viewing, and swimming. These are considered compatible recreation uses on Zone 2 property.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- The Town of Dandridge has a permanent easement on the northeastern section of this parcel for Church Street.

*Prior Forecast: Reservoir Operations*

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**Parcel 17**                      **2.4 Acres**  
**Common Name:**        **Newport Dike**  
**Allocation:**            **Zone 2 (Project Operations)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *French Broad River Mile 45.1 Right (behind Parcel 16)*

General Description:

This parcel consists of a dike located approximately 0.25 mile from the reservoir. President Roosevelt issued an EO to build the dike in order to protect Dandridge from the flooding waters of Douglas Reservoir. Newport Dike was completed in 1942.

Private water use facilities will not be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- The Town of Dandridge has permanent utility easements in the middle of this parcel for a sewer line.

*Prior Forecast: Reservoir Operations*

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**Parcel 18**                      **0.6 Acre**  
**Common Name:**        **Dandridge Municipal Park**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *French Broad River Mile 45.3-45.6 Right*

General Description:

This parcel consists of a steep wooded strip along the shoreline fronting land transferred to the Town of Dandridge. There is an outfall for the water treatment facility for the Town of Dandridge.

Private water use facilities will not be considered.



Recreation:

This parcel was placed in a Zone 6 to reflect the back-lying property use: public recreation for municipal park purposes. Despite the steep terrain, this parcel still receives recreation use along the shoreline, such as bank fishing and swimming.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- Transfer of back-lying property to the Town of Dandridge for recreation purposes.
- The Town of Dandridge has a utility easement for a sewer line and outfall on the eastern side of the parcel.

*Prior Forecast: No Forecast*

<b>Parcel 19</b>	<b>4.8 Acres</b>
<b>Common Name:</b>	<b>Oak Grove Ramp</b>
<b>Allocation:</b>	<b>Zone 6 (Developed Recreation)</b>
<b>Hydrological Unit:</b>	<b>TN-06010107-010</b>
<b>County:</b>	<b>Jefferson, Tennessee</b>
<b>Stream:</b>	<i>French Broad River Mile 47.9 Right</i>

General Description:

This parcel is developed with a small gravel parking lot and launching ramp, which is maintained by TVA.

Private water use facilities will not be considered.

Recreation:

Bank fishing and swimming opportunities exist. It is posted that motorized use and overnight use are prohibited.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: No Forecast*

**Parcel 20**                    **0.2 Acre**  
**Common Name:**        **Spring Creek**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
*Stream:*                 *French Broad River Mile 53.8 Right*

General Description:

This parcel consists of a wooded strip along the shoreline fronting land that has been transferred to TWRA.

Private water use facilities will not be considered.

Recreation:

There is a gravel parking area on the TWRA property with a dirt/gravel launching ramp.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- TWRA has a permanent recreation easement on this entire parcel.
- TVA previously transferred the back-lying property to TWRA for administration.

*Prior Forecast: No Forecast*

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**Parcel 21**                    **1.2 Acres**  
**Common Name:**        **French Broad Baptist Church**  
**Allocation:**            **Zone 3 (Sensitive Resource Management)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
*Stream:*                 *French Broad River Mile 53.9 Right*

General Description:

This parcel consists of a wooded strip along the shoreline. This parcel is placed in Sensitive Resource Management because on the back-lying land sits the historic French Broad Baptist Church. A levee was built by presidential decree prior to the filling of Douglas Reservoir to preserve the church. TVA has done shoreline stabilization projects fronting the church for erosion control and the protection of the sensitive resource.

Private water use facilities will not be considered.

Sensitive Resources:

The historic French Broad Baptist Church located behind this parcel is all that remains of Oak Grove, Jefferson County's first settlement. The church is built from handmade bricks

and contains stained glass imported from Czechoslovakia and was erected in 1919. No other sensitive resources were identified on this parcel.

Easements/Lease Agreements/Licenses/Transfers:

- Appalachian Electric Service has a utility license for transmission lines crossing the middle of this parcel.

*Prior Forecast: No Forecast*

**Parcel 22**                      **5.4 Acres**  
**Common Name:**        **Swann’s Bluff**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *French Broad River Mile 54.3 Right*

General Description:

This parcel is a steep, narrow wooded area consisting mainly of upland hardwoods. This parcel is located on both sides of Highway 25W. Riparian zones protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. Trees and shrubs may also provide valuable shade, cover, and food sources for fish. In addition, vegetation preserves shoreline beauty for lake users.

Private water use facilities will not be considered.

Sensitive Resources:

Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Public Recreation*

**Parcel 23**                      **1.0 Acre**  
**Common Name:**        **Nina Access**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *French Broad River Mile 55.7 Right*

General Description:

This parcel consists of a wooded strip along the shoreline fronting a TWRA reservoir access area.

Private water use facilities will not be considered.

Recreation:

TWRA has developed this area with a graveled parking area and concrete launching ramp. Bank fishing and swimming opportunities exist on this parcel. It is posted prohibited to motorized vehicles.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- TWRA has a permanent recreation easement on this entire parcel.
- TVA previously transferred the back-lying property to TWRA for administration.

*Prior Forecast: No Forecast*

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**Parcel 24**                    **3.0 Acres**  
**Common Name:**        **Walters Bridge North Access**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *French Broad River Mile 64.1 Right*

General Description:

This parcel is broken up into two strips of shoreline. Both strips were placed in Zone 6 to reflect the back-lying use: public recreation. These strips front lands that have been transferred to TWRA for public recreation.

Private water use facilities will not be considered.

Recreation:

Primitive bank-fishing sites as well as vehicle access to a small, primitive parking area and gate occur on both the TVA and TWRA lands associated with this parcel.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- TWRA has a permanent recreation easement on this entire parcel.
- TVA previously transferred the back-lying property to TWRA for administration.

*Prior Forecast: No Forecast*

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**Parcel 25**                      **1.0 Acre**  
**Common Name:**            **Leadvale East**  
**Allocation:**                **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**       **TN-06010107-010**  
**County:**                    **Jefferson, Tennessee**  
*Stream:*                      *French Broad River Mile 67.8 Right*

General Description:

This is a small parcel that consists of moderate scrubby vegetation. This area provides habitat for many different wildlife species and provides a buffer to the reservoir from the adjacent farmland and roads.

Private water use facilities will not be considered.

Recreation:

Dispersed recreation opportunities such as bank fishing and swimming occur on the parcel. The State of Tennessee has issued a bacteriological advisory for Leadvale Creek; however, the advisory pertains to Leadvale Creek and not the reservoir area.

Sensitive Resources:

Field surveys indicate the presence of scattered areas of scrub-shrub wetlands along the shoreline. In general, these areas are small and comprised of buttonbush and black willow.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Public Recreation*

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**Parcel 26**                      **1.7 Acres**  
**Common Name:**            **Leadvale Road/Bridge**  
**Allocation:**                **Zone 2 (Project Operations)**  
**Hydrological Unit:**       **TN-06010107-010**  
**County:**                    **Jefferson, Tennessee**  
*Stream:*                      *French Broad River Mile 67.9 Right*

General Description:

This parcel is a narrow strip of shoreline located at the corner of Leadvale Road and the railroad. This parcel is made up of the causeway and ditches associated with the road. The State of Tennessee has issued a bacteriological advisory for Leadvale Creek; however, the advisory pertains to Leadvale Creek and not the reservoir area.

Private water use facilities will not be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- Jefferson County has a permanent highway easement on this entire parcel for Leadvale Road.

*Prior Forecast: Public Recreation*

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**Parcel 27**                      **0.2 Acre**  
**Common Name:**        **Leadvale Creek**  
**Allocation:**              **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                  **Jefferson, Tennessee**  
**Stream:**                  *French Broad River Mile 67.9 Right*

General Description:

This is a small narrow strip of shoreline with no road access. The parcel mainly consists of some hardwoods and shrub-scrub vegetation. The shoreline vegetation provides a buffer to the reservoir and is beneficial to wildlife and water quality in the region.

Private water use facilities will not be considered.

Recreation:

The State of Tennessee has issued a bacteriological advisory for Leadvale Creek; however, the advisory pertains to Leadvale Creek and not the reservoir area.

Sensitive Resources:

Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: No Forecast*

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**Parcel 28**                      **10.2 Acres**  
**Common Name:**        **Leadvale Creek**  
**Allocation:**              **Zone 3 (Sensitive Resource Management)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                  **Jefferson, Tennessee**  
**Stream:**                  *French Broad River Mile 67.9 Right*

General Description:

Parcel 28 is broken into two tracts, with one tract located in the back of Leadvale Creek and the other on right side of Leadvale Creek. The tract in the back of Leadvale Creek cannot be accessed by road. Both tracts are made up of cedars, pines, mixed hardwood, and scrub-shrub vegetation. The shoreline vegetation provides a buffer to the reservoir and is beneficial to wildlife and water quality in the region. The area near the railroad track is mowed by the adjacent property owner. Public access occurs from the railroad bed.

Private water use facilities will not be considered.

Recreation:

Dispersed recreation opportunities such as bank fishing and swimming occur on the parcel. The State of Tennessee has issued a bacteriological advisory for Leadvale Creek; however, the advisory pertains to Leadvale Creek and not the reservoir area.

Sensitive Resources:

A wetlands survey indicates that there is a high-quality wetland within this parcel. It represents suitable habitat for several species of listed amphibians, shorebirds, small mammals, and plants.

No other sensitive resources on this parcel were identified.

Easements/Lease Agreements/Licenses/Transfers:

- Jefferson County has a permanent highway easement crossing the middle of this parcel for Beth Carr Road.

*Prior Forecast: No Forecast*

<b>Parcel 29</b>	<b>0.6 Acre</b>
<b>Common Name:</b>	<b>Leadvale Creek</b>
<b>Allocation:</b>	<b>Zone 2 (Project Operations)</b>
<b>Hydrological Unit:</b>	<b>TN-06010107-010</b>
<b>County:</b>	<b>Jefferson, Tennessee</b>
<i>Stream:</i>	<i>French Broad River Mile 67.9 Right</i>

General Description:

This parcel is a narrow riparian strip located between Leadvale Creek and Beth Carr Road. The vegetation on this strip consists of cedars, pines, and a few hardwoods. Riparian zones protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. Trees and shrubs may also provide valuable shade, cover, and food sources for fish. In addition, vegetation preserves shoreline beauty for lake users. The State of Tennessee has issued a bacteriological advisory for Leadvale Creek; however, the advisory pertains to Leadvale Creek and not the reservoir area.

Private water use facilities will not be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- Jefferson County has a permanent highway easement on the majority of this parcel for Beth Carr Road.

*Prior Forecast: No Forecast*

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**Parcel 30**                      **0.3 Acre**  
**Common Name:**        **Leadvale Access**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                *French Broad River Mile 68.0 Right*

General Description:

This parcel is managed by TWRA for public recreation. TWRA has developed this parcel with a gravel parking area and concrete launching ramp.

Private water use facilities will not be considered.

Recreation:

Bank fishing and swimming occur on this parcel. The State of Tennessee has issued a bacteriological advisory for Leadvale Creek; however, the advisory pertains to Leadvale Creek and not the reservoir area.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- TWRA has a recreation easement on this entire parcel.

*Prior Forecast: No Forecast*

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**Parcel 31**                      **0.5 Acre**  
**Common Name:**        **Nolichucky Confluence**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Cocke, Tennessee**  
**Stream:**                *Nolichucky River Mile 0.1 Left*

General Description:

This parcel is a steep bluff, with no road access, which contains a sign showing the confluence of the Nolichucky River and the French Broad River. The shoreline vegetation provides a riparian buffer to the reservoir and is beneficial to wildlife and water quality in the region.

Private water use facilities will not be considered.



Sensitive Resources:

Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: No Forecast*

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**Parcel 32**                      **2.3 Acres**  
**Common Name:**        **Rankin Access**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Cocke, Tennessee**  
**Stream:**                *French Broad River Mile 71.5 Right*

General Description:

Parcel 32 is a riparian strip of varying width fronting land transferred to TWRA for public recreation. All 2.3 acres of this parcel have been identified as being prime farmland.

Private water use facilities will not be considered.

Recreation:

TWRA has developed the parcel with a parking area and concrete launching ramp. Bank fishing and swimming opportunities exist on this parcel.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- TWRA has a permanent recreation easement on this entire parcel.
- TVA previously transferred the back-lying property to TWRA for administration.
- Cocke County has a permanent road easement that crosses the middle of this entire parcel for Bybee Road.

*Prior Forecast: No Forecast*

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**Parcel 33**                    **16.7 Acres**  
**Common Name:**        **Rankin Bottoms Wildlife Management Area**  
**Allocation:**            **Zone 3 (Sensitive Resource Management)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Cocke, Tennessee**  
**Stream:**                *French Broad River Mile 72.8-73.0 Left and Islands*

General Description:

This parcel is located upstream of Rankin Bridge and just below the confluence of the Pigeon River, with no road access. It consists of four peninsulas and four islands. The vegetation on this parcel consists of willows, a few mixed hardwood species, and scrub-shrub vegetation. This parcel is part of the license agreement to TWRA for the management of a waterfowl and wildlife refuge. Rankin Bottoms is a premier site in east Tennessee for warm season water birds and provides important waterfowl habitat in winter. It is adjacent to approximately 1,200 acres TWRA manages for the same purpose. The shoreline vegetation provides a riparian buffer to the reservoir and is beneficial to wildlife and water quality in the region. This parcel contains 8 acres identified as being prime farmland.

Private water use facilities will not be considered.

Recreation:

During state-regulated hunting seasons, the peninsulas and islands provide small game, game bird, and deer hunting opportunities.

Sensitive Resources:

This parcel contains extensive, high-quality wetland areas. Rankin Bottoms has two long-term monitoring plots for TVA's Reservoir Operations Compliance Wetland Study. No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- TWRA has a license for wildlife management/refuge area on this entire parcel.

*Prior Forecast: No Forecast*

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**Parcel 34**                    **1.0 Acre**  
**Common Name:**        **Rankin Bridge**  
**Allocation:**            **Zone 2 (Project Operations)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                *French Broad River Mile 71.4 Left*

General Description:

This parcel is a small section of marginal strip adjacent to Rankin Road and includes the abutment for Rankin Bridge. This small parcel consists of moderate scrubby vegetation.

This area provides habitat for many different wildlife species and provides a buffer to the reservoir from the adjacent farmland and roads.

Private water use facilities will not be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- Cocke County has a permanent road easement that crosses the northern section of this parcel for Rankin Hill Road.
- TWRA has a license for wildlife management/refuge area on a portion of this parcel.

*Prior Forecast: No Forecast*

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<b>Parcel 35</b>	<b>3.1 Acres</b>
<b>Common Name:</b>	<b>Rankin Rail Shoreline</b>
<b>Allocation:</b>	<b>Zone 4 (Natural Resource Conservation)</b>
<b>Hydrological Unit:</b>	<b>TN-06010107-010</b>
<b>County:</b>	<b>Cocke, Tennessee</b>
<b>Stream:</b>	<i>French Broad River Mile 69.8-71.0 Left</i>

General Description:

Parcel 35 is separated into multiple tracts of land adjacent to the railroad and road. This is a small parcel consisting of moderate scrubby vegetation. This area provides habitat for many different wildlife species, and provides a buffer to the reservoir from the adjacent road.

Private water use facilities will not be considered.

Sensitive Resources:

Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: No Forecast*

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**Parcel 36**                    **4.6 Acres**  
**Common Name:**        **Leadville South Strip**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Cocke, Tennessee**  
**Stream:**                *French Broad River Mile 67.1-67.9 Left*

General Description:

Parcel 36 is a wooded strip located along the shoreline with no road access. This area provides habitat for many different wildlife species, and provides a buffer to the reservoir. Vegetation on this parcel consists of willows and other scrub-shrub vegetation. The coal tipple for the old railroad is located on the property adjacent to this parcel.

Private water use facilities will not be considered.

Sensitive Resources:

Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: No Forecast*

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**Parcel 37**                    **0.1 Acre**  
**Common Name:**        **25 E**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Cocke, Tennessee**  
**Stream:**                *French Broad River Mile 63.2 Left*

General Description:

This is a small riparian parcel between Highway 25E and the reservoir. This parcel consists of mixed hardwoods and thick understory. This area provides habitat for many different wildlife species and provides a buffer to the reservoir from the adjacent road.

Private water use facilities will not be considered.

Sensitive Resources:

Field surveys indicate the presence of scattered areas of scrub-shrub wetlands along the shoreline. In general, these areas are small and comprised of buttonbush and black willow.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Public Recreation*

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**Parcel 38**                      **0.3 Acre**  
**Common Name:**            **25 E – Sam Odel Store**  
**Allocation:**                **Zone 7 (Shoreline Access)**  
**Hydrological Unit:**        **TN-06010107-010**  
**County:**                    **Cocke, Tennessee**  
*Stream:*                      *French Broad River Mile 62.5 Left*

General Description:

Parcel 38 is a narrow wooded strip along the shoreline and consists of a gravel strip along the right-of-way for Highway 25E. This parcel was placed in Zone 7 to reflect deeded ingress and egress rights associated with back-lying residential property. TVA seeks cooperative opportunities with back-lying property owners to improve shoreline conditions by establishing more vegetation.

Private water use facilities may be considered.

Recreation:

This parcel is heavily used for dispersed recreation.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: No Forecast*

**Parcel 38a**                      **0.4 Acre**  
**Common Name:**            **Union Church Cemetery**  
**Allocation:**                **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**        **TN-06010107-010**  
**County:**                    **Cocke, Tennessee**  
*Stream:*                      *French Broad River Mile 62.5 Left*

General Description:

Parcel 38a is the site of the former Union Church Cemetery, which may also be known as Union Chapel Cemetery. This parcel is located between private property and Highway 25E. The TVA cemetery relocation database showed that 46 graves originally located in Union Church Cemetery in Cocke County were relocated in 1942. The graves were relocated to two cemeteries: (1) the Relocated Union Cemetery and (2) Ray’s Chapel Cemetery.

Private water use facilities will not be considered.

Recreation:

This parcel was placed in Zone 4 to reflect the occurrence of opportunities associated with dispersed recreation. This parcel is heavily used for dispersed recreation.

Sensitive Resources:

Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: No Forecast*

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**Parcel 39**                      **2.3 Acres**  
**Common Name:**        **25W - Swann's Bridge**  
**Allocation:**            **Zone 2 (Project Operations)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *French Broad River Mile 54.3 Left and Right*

General Description:

Parcel 39 is a small strip encumbered by Swann's Bridge (Highway 25W) abutment adjacent to Fancher's Campground.

Private water use facilities will not be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- TWRA has a recreation easement on this entire parcel.
- The State of Tennessee has a permanent highway easement that crosses the middle of this parcel for Highway 25W.

*Prior Forecast: No Forecast*

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**Parcel 40**                      **0.6 Acre**  
**Common Name:**        **Swann’s Marina and Campground**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
*Stream:*                    *French Broad River Mile 54.2 Right (Seahorn Creek)*

General Description:

This parcel is a wooded strip along the shoreline fronting Swann’s Marina. The vegetation below normal summer pool is mowed by the marina. This parcel is a 4(k)(a) sale tract with an alienation clause.

Private water use facilities will not be considered.

Recreation:

This parcel includes a TVA-certified commercial clean marina and concrete launching ramp. This parcel was placed in a Zone 6 to reflect the usage as developed recreation.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

Appalachian Electric Service has a utility license for transmission lines crossing the middle of this parcel.

*Prior Forecast: No Forecast*

**Parcel 41**                      **8.2 Acres**  
**Common Name:**        **Reid Town**  
**Allocation:**            **Zone 7 (Shoreline Access)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
*Stream:*                    *Indian Creek Mile 2.5-3.5 Left*

General Description:

Parcel 41 is a wooded strip along the shoreline fronting residential development. There is a community ramp and access in the first cove of the development. This parcel was placed in Zone 7 due to rights by policy; the subdivision had permitted water access facilities prior to 1992. TVA seeks cooperative opportunities with back-lying property owners to improve shoreline conditions by establishing more vegetation.

Private water use facilities may be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- Jefferson County has a permanent highway easement that crosses the southern section of this parcel for Shropshire Hollow Road.

*Prior Forecast: No Forecast*

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**Parcel 42**                      **78.4 Acres**  
**Common Name:**        **Indian Creek**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *Indian Creek Mile 1.0 Left and Right*

General Description:

Parcel 42 is split by Indian Creek and crossed by Indian Creek Road. The eastern portion is primarily wooded, with vegetation consisting of mixed hardwoods. A large area near Indian Creek Bridge is maintained by mowing by the Jefferson County Highway Department. The western portion is adjacent to Indian Creek Boat Dock and consists of mixed hardwoods and a gravel parking area. This area provides habitat for many different wildlife species, and provides a buffer to the reservoir from the adjacent road.

Private water use facilities will not be considered.

Recreation:

Motorized access has been restricted beyond the parking area due to impacts on natural resources. Bank fishing and swimming currently occur on the parcel. It was placed in Zone 6 for its potential to expand public or commercial recreation facilities on Douglas Reservoir in the Indian Creek area.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- A private individual has a license for road access to an island on the western portion of this parcel.
- Jefferson County has a permanent highway easement that crosses the northern section of this parcel for Indian Creek Road.



- Appalachian Electric Service has a utility license for transmission lines crossing the northern section of this parcel.

*Prior Forecast: Public Recreation*

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**Parcel 43**                      **5.5 Acres**  
**Common Name:**        **Marginal Strip (Fronting the Point Marina and Resort)**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                *French Broad River Mile 45.2 Left*

General Description:

Parcel 43 is a strip of shoreline fronting property TVA previously transferred to the Town of Dandridge for municipal park purposes.

Private water use facilities will not be considered.

Recreation:

The Town of Dandridge has developed the transferred property to include a TVA-certified commercial clean marina, dry storage for boats, two concrete boat ramps, a restaurant, paved parking, pavilion, and motel. There have been negotiations in the past about developing a campground, and further interest may be seen in the future.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- The Town of Dandridge has a permanent easement for utilities (water and sewer) on the northern section of this parcel.
- TVA previously transferred the back-lying property to the Town of Dandridge for municipal park purposes.

*Prior Forecast: No Forecast*

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**Parcel 44**                    **25.5 Acres**  
**Common Name:**        **Dandridge Ramp**  
**Allocation:**            **Zone 6 (Developed Recreation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *French Broad River Mile 44.7-45.1 Left*

General Description:

This parcel is managed by TWRA for public recreation. The area provides habitat for many different wildlife species, and provides a buffer to the reservoir. This parcel contains 6.5 acres identified as being prime farmland.

Private water use facilities will not be considered.

Recreation:

TWRA has developed this parcel with a low water ramp and high water concrete launching ramp, large concrete parking area, and courtesy pier. Portions of the parcel provide bank fishing and swimming opportunities. During state-regulated hunting seasons, portions of this parcel also provide hunting opportunities for small game animals.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- TWRA has a recreation license on this entire parcel.

*Prior Forecast: Public Recreation*

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**Parcel 45**                    **30.8 Acres**  
**Common Name:**        **Highway 92 Dandridge Access**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *French Broad River Mile 44.0-44.4 Left*

General Description:

This is a wooded parcel containing mostly mixed hardwood species with a few pines and wetland coves interspersed. Although Parcel 45 is steep to the water's edge, it is fairly flat on top.

Private water use facilities will not be considered.

Recreation:

This parcel was placed in Zone 4 to reflect the occurrence of opportunities associated with dispersed recreation. Bank fishing and swimming occur along the shoreline.

A 2-mile primitive trail, proposed on a portion of this parcel, was built in partnership with the Town of Dandridge and community partners. This parcel has received interest from developers for recreation in the past and may in the future; however, the slope to the water precludes development. Access rules are posted and camping is prohibited. During state-regulated hunting seasons, portions of this parcel provide hunting opportunities for small game animals and deer.

Sensitive Resources:

Field surveys indicate the presence of scattered areas of Category 2 (moderate quality) scrub-shrub wetlands along the shoreline. In general, these areas are small and comprised of buttonbush and black willow.

Easements/Lease Agreements/Licenses/Transfers:

- Jefferson County has a permanent highway easement that crosses the northern section of this parcel for Highway 66.

*Prior Forecast: Public Recreation*

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<b>Parcel 46</b>	<b>4.0 Acres</b>
<b>Common Name:</b>	<b>Islands</b>
<b>Allocation:</b>	<b>Zone 4 (Natural Resource Conservation)</b>
<b>Hydrological Unit:</b>	<b>TN-06010107-010</b>
<b>County:</b>	<b>Jefferson, Tennessee</b>
<b>Stream:</b>	<i>French Broad River Mile 40.1-44.0 Left and Island</i>

General Description:

Parcel 46 is made up of three islands and two wooded strips fronting residential development, all of which are accessible by water. These tracts are primarily forested. The shoreline vegetation and islands provide a buffer to the reservoir and are beneficial to wildlife and water quality in the region.

Private water use facilities will not be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Reservoir Operations*

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**Parcel 47**                      **36.3 Acres**  
**Common Name:**        **Sandy Ridge**  
**Allocation:**            **Zone 3 (Sensitive Resource Management)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *Muddy Creek 4.9-5.3 Right*

General Description:

This parcel is split into two small wooded strips located along the shoreline fronting residential development and a large forested tract that is made up of upland hardwood stands and reverted old fields with pine and red cedar. This area provides habitat for many different wildlife species and provides a buffer to the reservoir.

Private water use facilities will not be considered.

Recreation:

This parcel receives very little use other than hunting. During state-regulated hunting seasons, portions of this parcel provide hunting opportunities for small game animals and deer.

Sensitive Resources:

A wetlands survey indicates that there is a high-quality wetland within this parcel. This parcel was placed in Zone 3 to reflect the emphasis to protect and enhance sensitive resources. It represents suitable habitat for several species of listed amphibians, shorebirds, small mammals, and plants. No other sensitive resources on this parcel were identified.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Public Recreation*

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**Parcel 48**                      **20.0 Acres**  
**Common Name:**        **Moon Hill Bridge**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *Muddy Creek Mile 5.4-6.0 Right*

General Description:

Moon Hill Bridge (also known as Muddy Creek) was placed in Zone 4 to reflect the occurrence of opportunities associated with dispersed recreation. Bank fishing and swimming occur along the shoreline, and primitive camping occurs throughout the parcel. This area provides habitat for many different wildlife species and provides a buffer to the reservoir.

Private water use facilities will not be considered.

Recreation:

This parcel has an informal boat ramp and a popular primitive camping area. The severity of the impacts is considered above the LAC. As a result, a new management prescription has been posted: Camping is permitted only mid-April to October.

Bank fishing and swimming occur along the shoreline. This parcel has received interest from developers for recreation in the past and may in the future; however, winter drawdown discourages most development.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- Jefferson County has a permanent highway easement that crosses the middle of this parcel for Highway 92.

*Prior Forecast: Public Recreation*

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<b>Parcel 49</b>	<b>0.3 Acre</b>
<b>Common Name:</b>	<b>AME Church</b>
<b>Allocation:</b>	<b>Zone 3 (Sensitive Resource Management)</b>
<b>Hydrological Unit:</b>	<b>TN-06010107-010</b>
<b>County:</b>	<b>Jefferson, Tennessee</b>
<b>Stream:</b>	<i>French Broad River Mile 34.9-36.6 Left (McGuire Creek Mile 3.6 Right)</i>

General Description:

This is a very small parcel adjacent to a historical church and cemetery. TVA should consider the historical church and cemetery when managing this parcel. The shoreline vegetation provides a riparian buffer to the reservoir and is beneficial to wildlife and water quality in the region.

Private water use facilities will not be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Public Recreation*

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**Parcel 50**                      **14.5 Acres**  
**Common Name:**        **McGuire Creek Islands**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *French Broad River Mile 34.9-36.6 Left and Island*

General Description:

Parcel 50 consists of eight islands accessible by water only. These islands contain Dayboard Numbers 2 and 3. The islands are wooded mainly by cedars and a few hardwoods and receive dispersed recreation. The islands provide beneficial habitat to wildlife.

Private water use facilities will not be considered.

Recreation:

Where the slope is appropriate, the islands provide dispersed recreation opportunities. The severity of recreation impacts is considered within the standards for the LAC where camping occurs.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

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*Prior Forecast: Reservoir Operations and Public Recreation*

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**Parcel 51**                      **29.8 Acres**  
**Common Name:**        **Perry Branch Fragmented**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Jefferson, Tennessee**  
**Stream:**                 *French Broad River Mile 34.8-36.5 Left (McGuire Creek 0.0-0.5 Left)*

General Description:

Parcel 51 consists of four wooded tracts that are accessible only by water. The vegetation on this parcel is primarily saw-timber-sized upland hardwood with scattered pines. Two of the tracts are adjacent to residential development. This area provides habitat for many different wildlife species and provides a buffer to the reservoir.

Private water use facilities will not be considered.

Recreation:

This parcel receives heavy dispersed recreation use. The severity of recreation impacts is considered within the standards for the LAC where camping occurs.

Sensitive Resources:

Field surveys indicate the presence of scattered areas of Category 2, scrub-shrub wetlands along the shoreline. In general, these areas are small and comprised of buttonbush and black willow.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Reservoir Operations and Public Recreation*

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<b>Parcel 52</b>	<b>111.7 Acres</b>
<b>Common Name:</b>	<b>Catlett’s Shoreline</b>
<b>Allocation:</b>	<b>Zone 4 (Natural Resource Conservation)</b>
<b>Hydrological Unit:</b>	<b>TN-06010107-010</b>
<b>County:</b>	<b>Jefferson and Sevier, Tennessee</b>
<b>Stream:</b>	<i>French Broad River Mile 33.0 – 34.6 Left (Flat Creek Mile 1.2 – 3.5)</i>

General Description

This parcel is made up of a large peninsula and two riparian strips that front residential development. Most of this parcel is accessible by water only. The peninsula is forested with mixed hardwood species and contains many different wetland plant species in the back of coves and inlets.

There have been multiple encroachments on the marginal riparian strips in the past and possible encroachments will continue in the future. This parcel contains 3.4 acres identified as being prime farmland.

Much of this parcel is old fields that have reverted to Virginia pine (25 acres), various mixtures of pine, red cedar, and upland hardwood (42 acres), and upland hardwood (29 acres). These old fields are pole to small saw-timber size and site productivity is low to medium. A 29-acre large saw-timber, upland hardwood stand occupies the north-central portion of the parcel. Dominant species include white oak, red oak, hickory, and red maple. A wetland survey on Parcel 52 indicated pocket wetlands were present in the coves of the parcel. This area provides habitat for many different wildlife species and provides a buffer to the reservoir from the adjacent farmland and roads.

Private water use facilities will not be considered.

Recreation:

This parcel receives heavy dispersed recreation, mainly by hunters. During state-regulated hunting seasons, this parcel provides small game and deer hunting opportunities.

Sensitive Resources:

Field surveys indicate the presence of scattered areas of Category 2, scrub-shrub wetlands along the shoreline. In general, these areas are small and are comprised of buttonbush and black willow.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Public Recreation*

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**Parcel 53**                    **2.5 Acres**  
**Common Name:**        **Flat Creek**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Sevier, Tennessee**  
**Stream:**                *Flat Creek Mile 7.6 Right*

General Description:

This parcel is a wooded strip located along the shoreline and in the past has been maintained by mowing by a private individual. The shoreline vegetation provides a riparian buffer to the reservoir and is beneficial to wildlife and water quality in the region.

Private water use facilities will not be considered.

Recreation:

This parcel has been placed in Zone 4 to reflect the conservation values of this small parcel. Bank fishing is permissible, consistent with state regulations, but likely does not get much use this way.

Sensitive Resources:

Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: No Forecast*

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**Parcel 54**                    **121.9 Acres**  
**Common Name:**        **Saddle Dam 10**  
**Allocation:**            **Zone 2 (Project Operations)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Sevier, Tennessee**  
**Stream:**                 *Flat Creek Mile 5.2-5.8 Left*

General Description:

A variety of forest conditions occupies Parcel 54. The southern shoreline strip is a well-developed, large saw-timber, upland hardwood stand with northern red oak, chestnut oak, American beech, and hickory. The remainder of the parcel consists of old fields, which either reverted naturally or were planted. Site productivity was severely depleted on these areas from previous agricultural abuse. Most of this area was planted to loblolly pine in the mid 1960s, but southern pine beetles have killed much of the pine over the years. Several pockets of hardwood are present and are the result of natural reversion. Hickory, white ash, and oaks are the dominant species on these areas. Scattered eastern red cedar is also present on the old-field areas. This area provides habitat for many different wildlife species and provides a buffer to the reservoir. This parcel contains 1.4 acres identified as being prime farmland.

Private water use facilities will not be considered.

Recreation:

This parcel receives heavy dispersed recreation use and has been adversely affected by illegal off-road vehicle and all-terrain vehicle use. Bank fishing and swimming occur along the shoreline.

The severity of recreation impacts is considered above the standards for the LAC where camping occurs. As a result, new management prescriptions will be applied to improve the quality of the recreation experience and the resource.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

None

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*Prior Forecast: Public Recreation*

**Parcel 55**                    **3.0 Acres**  
**Common Name:**        **Flat Creek Marginal Strip**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Sevier, Tennessee**  
*Stream:*                 *Flat Creek Mile 4.4-5.3 Left*

General Description:

Parcel 55 consists of a wooded strip along the shoreline that fronts residential development and an island fronting Parcel 54 (Saddle Dam 10). The forested island receives some dispersed recreation use. The shoreline vegetation and islands provide a buffer and are beneficial to wildlife and water quality in the region

Private water use facilities will not be considered.

Recreation:

This parcel receives dispersed recreation use. The severity of recreation impacts is considered within the standards for the LAC where camping occurs.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Public Recreation*

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**Parcel 56**                    **0.6 Acre**  
**Common Name:**        **Flat Creek Access**  
**Allocation:**            **Zone 7 (Shoreline Access)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Sevier, Tennessee**  
*Stream:*                 *Flat Creek Mile 5.5-6.0 Left*

General Description:

This parcel is a wooded strip located along the shoreline fronting residential development and fronting Parcel 57 (Saddle Dam 9). This parcel was placed in Zone 7 to reflect deeded ingress and egress rights associated with back-lying residential property. TVA seeks cooperative opportunities with back-lying property owners to improve shoreline conditions by establishing more vegetation. The shoreline vegetation provides a riparian buffer to the reservoir and is beneficial to wildlife and water quality in the region.

Private water use facilities will be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: No Forecast*

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**Parcel 57**                      **3.8 Acres**  
**Common Name:**        **Saddle Dam 9**  
**Allocation:**            **Zone 2 (Project Operations)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Sevier, Tennessee**  
**Stream:**                 *Flat Creek Mile 5.0 Left*

General Description:

Parcel 57 is wooded with a mixed upland hardwood species and accessible by road only. This is one of 10 smaller saddle dams constructed at the same time as Douglas Dam. These saddle dams function to prevent the French Broad River from spilling into adjacent valleys and to permit a higher water elevation than would otherwise be possible.

There is a road across the parcel to access the lakefront residential development. This area provides habitat for many different wildlife species and provides a buffer to the reservoir.

Private water use facilities will not be considered.

Recreation:

This parcel provides opportunities associated with dispersed recreation, such as bank fishing and swimming. These are considered compatible recreation uses on Zone 2 property.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

None

*Prior Forecast: Public Recreation*

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**Parcel 58**                    **3.5 Acres**  
**Common Name:**        **Saddle Dam 8**  
**Allocation:**            **Zone 2 (Project Operations)**  
**Hydrological Unit:**   **TN-06010107-010**  
**County:**                **Sevier, Tennessee**  
*Stream:*                 *Flat Creek Mile 4.6 Left*

General Description:

Parcel 58 is wooded with a mixed upland hardwood species and accessible by road only. This is one of 10 smaller saddle dams constructed at the same time as Douglas Dam. These saddle dams function to prevent the French Broad River from spilling into adjacent valleys and to permit a higher water elevation than would otherwise be possible. The shoreline vegetation provides a buffer to the reservoir and is beneficial to wildlife and water quality in the region.

Private water use facilities will not be considered.

Recreation:

This parcel provides opportunities for dispersed recreation, such as bank fishing and swimming. These are considered compatible recreation uses on Zone 2 property.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Public Recreation*

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**Parcel 59**                    **13.4 Acres**  
**Common Name:**        **Saddle Dam 7**  
**Allocation:**            **Zone 2 (Project Operations)**  
**Hydrological Unit:**   **TN-06010107-010**  
**County:**                **Sevier, Tennessee**  
*Stream:*                 *Flat Creek Mile 3.6 Left*

General Description:

Parcel 59 is wooded with a mixed upland hardwood species and accessible by road only. This is one of 10 smaller saddle dams constructed at the same time as Douglas Dam. These saddle dams function to prevent the French Broad River from spilling into adjacent valleys and to permit a higher water elevation than would otherwise be possible. The shoreline vegetation provides a buffer to the reservoir and is beneficial to wildlife and water quality in the region.

Private water use facilities will not be considered.

Recreation:

This parcel provides opportunities for dispersed recreation, such as bank fishing and swimming. These are considered compatible recreation uses on Zone 2 property.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Public Recreation*

<b>Parcel 60</b>	<b>0.7 Acre</b>
<b>Common Name:</b>	<b>Providence Road Access</b>
<b>Allocation:</b>	<b>Zone 6 (Developed Recreation)</b>
<b>Hydrological Unit:</b>	<b>TN-06010107-010</b>
<b>County:</b>	<b>Sevier, Tennessee</b>
<i>Stream:</i>	<i>Flat Creek Mile 3.3 Left</i>

General Description:

Parcel 60 is a wooded strip that lies along the shoreline fronting land transferred to TWRA for public recreation.

Private water use facilities will not be considered.

Recreation:

TWRA has developed the area on the tip of the peninsula with a gravel access road and parking area.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- TWRA has a permanent recreation easement on this entire parcel.

*Prior Forecast: No Forecast*

**Parcel 61**                    **284.8 Acres**  
**Common Name:**        **Saddle Dams 1-6 (Sevier County Park)**  
**Allocation:**            **Zone 2 (Project Operations)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Sevier, Tennessee**  
**Stream:**                *Flat Creek Mile 0.8-2.3 Left*

General Description:

Parcel 61 is predominately a mixed upland evergreen-deciduous forest adjacent to Douglas Dam Reservation. This parcel contains six of the 10 smaller saddle dams that were constructed at the same time as Douglas Dam. These saddle dams function to prevent the French Broad River from spilling into adjacent valleys and to permit a higher water elevation than would otherwise be possible. The shoreline vegetation provides a riparian buffer to the reservoir and is beneficial to wildlife and water quality in the region. This parcel contains 25.4 acres identified as being prime farmland.

Private water use facilities will not be considered.

Recreation:

Sevier County Park subleases to Mountain Cove Marina, a TVA-certified commercial clean marina that is located on a portion of this parcel. Mountain Cove Marina provides the public with docking, gas, and snacks. On other portions of this parcel, dispersed recreation opportunities exist, such as bank fishing and swimming. These are considered compatible recreation uses on Zone 2 property. Illegal all-terrain vehicle activity occurs along the shoreline and across the parcel although it is posted as prohibited to motorized vehicles.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- Sevier County has a 30-year recreation easement on this entire parcel.
- Sevier County has a permanent highway easement that crosses the southern section of this parcel for Providence Road.
- A private stakeholder has a permanent road easement that crosses the southern section of this parcel for a driveway.
- Sevier County Electric System has a utility license for transmission lines crossing the middle of this parcel.
- South Central Bell has a utility license on the north end of this parcel for telephone lines.

- Sevierville Water System has a utility license on the north end of this parcel for water lines.
- Sevier Water Board has a permanent easement on the north end of this parcel for a water intake.
- A private agriculture license occurs on the northern section of this parcel for hay only.

*Prior Forecast: Public Recreation*

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**Parcel 62**                      **2.2 Acres**  
**Common Name:**        **Islands**  
**Allocation:**            **Zone 4 (Natural Resource Conservation)**  
**Hydrological Unit:**    **TN-06010107-010**  
**County:**                **Sevier, Tennessee**  
**Stream:**                *Flat Creek Mile 1.6-2.0 Islands*

General Description:

Parcel 62 consists of two small wooded islands fronting Parcel 61 (Sevier County Park). The shoreline vegetation provides a buffer to the reservoir and is beneficial to wildlife and water quality in the region.

Private water use facilities will not be considered.

Sensitive Resources:

No sensitive resources surveys have been conducted on committed land. Existing data did not indicate any sensitive resources at this location.

Easements/Lease Agreements/Licenses/Transfers:

- None

*Prior Forecast: Public Recreation*

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## 6.0 GLOSSARY OF TERMS

<b>100-year floodplain</b>	The area inundated by the 1 percent annual chance (or 100-year) flood.
<b>benthic</b>	Refers to the bottom of a stream, river, or reservoir.
<b>chlordane</b>	A pesticide previously used to control termites and crop pests until banned by the U.S. Environmental Protection Agency in 1983.
<b>dam reservation</b>	Lands generally maintained in a parklike setting by TVA to protect the integrity of the dam structure, hydroelectric facilities, and navigation lock. 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.
<b>deciduous</b>	Vegetation that sheds leaves in autumn and produces new leaves in the spring.
<b>dissolved oxygen</b>	The oxygen dissolved in water, necessary to sustain aquatic life. It is usually measured in milligrams per liter or parts per million.
<b>ecoregion</b>	A relatively homogeneous area of similar geography, topography, climate, and soils that supports similar plant and animal life.
<b>embayment</b>	A bay or arm of the reservoir
<b>emergent wetland</b>	Wetlands dominated by erect, rooted herbaceous plants, such as cattails and bulrush.
<b>endangered species</b>	A species in danger of extinction throughout all or significant portions of its range or territory. Endangered species recognized by the ESA or similar state legislation have special legal status for their protection and recovery.
<b>evergreen</b>	Vegetation with leaves that stay green and persist all year.
<b>evergreen-deciduous</b>	Vegetation consisting of a mixture of plants that are both evergreen and deciduous often referred to as mixed deciduous.
<b>floodplains</b>	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 a 1 percent or greater chance of flooding (100-year flood) in any given year.

<b>flowage easement land</b>	Privately owned lakeshore properties where TVA has (1) the right to flood the land as part of its reservoir operations, (2) no rights for vegetation management, and (3) the authority to control structures, under Section 26a of the TVA Act.
<b>Forest</b>	Vegetation having tree crowns overlapping, generally forming 60-100 percent cover (Grossman et al. 1998).
<b>macroinvertebrates</b>	Bottom-dwelling aquatic animals without vertebrates, such as mollusks and arthropods.
<b>marginal strip</b>	The narrow strip of land retained by TVA between the summer operating pool and back-lying tracts that are privately owned or controlled by state, local, or other federal agencies.
<b>maximum shoreline contour</b>	An elevation typically 5 feet above the top of the gates of a TVA dam. It is often the property boundary between TVA marginal strip property and adjoining private property.
<b>physiographic provinces</b>	General divisions of land with each area having characteristic combinations of soil materials and topography.
<b>prime farmland</b>	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.
<b>riparian</b>	The communities of plants and animals that occur within the influence of a stream, river, or body of water.
<b>riparian zone</b>	An area of land that has vegetation or physical characteristics reflective of permanent water influence. Typically a streamside zone or shoreline edge.
<b>riprap</b>	Stones placed along the shoreline for bank stabilization and other purposes.
<b>riverine</b>	Having characteristics similar to a river.

<b>Section 26a review process</b>	Section 26a of the TVA Act requires TVA review and approval of plans for obstructions, such as docks, fills, bridges, outfalls, water intakes, and riprap, before they are constructed across, in, or along the Tennessee River and its tributaries. Applications for this approval are coordinated appropriately with TVA programs and the U.S. Army Corps of Engineers (USACE). USACE issues a joint public notice for those applications that are not covered by a USACE nationwide, general, or regional permit. The appropriate state water pollution control agency must also certify that the effluent from outfalls meets the applicable water quality standards.
<b>scrub-shrub</b>	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.
<b>shoreline/shoreland</b>	The line where the water of a TVA reservoir meets the shore when the water level is at the normal summer pool elevation.
<b>significant cultural resources</b>	Some of the parcel descriptions state that “the parcel contains significant cultural resources” or that “cultural resource considerations may affect development of the parcel.” However, many of the parcel descriptions contain no reference to archaeological or other cultural resources. The lack of such references within a parcel description does not necessarily indicate that significant cultural resources do not exist. The use of any parcel for developmental purposes may require additional archaeological testing or mitigation of adverse impact to archaeological sites. The costs of required testing or mitigation would be the responsibility of the developer.
<b>substrates</b>	The base or material to which a plant is attached and from which it receives nutrients.
<b>threatened species</b>	A species threatened with extinction throughout all or significant portions of its range or territory. Threatened species recognized by the ESA or similar state legislation have special legal status for their protection and recovery.
<b>tributary reservoirs</b>	Impoundments created by dams constructed across streams and rivers that eventually flow into the Tennessee River.
<b>understory</b>	The least-dominant community of trees of a forest, consisting of shade-tolerant species.
<b>upland</b>	The higher parts of a region, not closely associated with streams or lakes.

<p><b>wetlands</b></p>	<p>As defined in <i>TVA Environmental Review Procedures</i> (TVA 1983), “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.</p>
<p><b>Wildlife Management Area</b></p>	<p>Land and/or water areas designated by state wildlife agencies, such as TWRA, 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.</p>
<p><b>woodland</b></p>	<p>Open stands of trees with crowns not usually touching, generally forming 25-60 percent cover (Grossman et al. 1998).</p>