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TIMS FORD RESERVOIR LAND MANAGEMENT PLAN DRAFT PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

Franklin and Moore Counties, Tennessee

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SYMBOLS, ACRONYMS AND ABBREVIATIONS

§	Section
APE	Area of Potential Effect
ARAP	Aquatic Resource Alteration Permit
BLS	Bureau of Labor Statistics
Board	TVA Board of Directors
BMP	Best Management Practices
CAA	Clean Air Act
CFR	Code of Federal Regulations
CVLP	Comprehensive Valleywide Land Plan
CWA	Clean Water Act
DO	Dissolved Oxygen
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
HUC	Hydrologic Unit Code
LTRM	Little Tennessee River Mile
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRI	Nationwide Rivers Inventory
NRP	Natural Resource Plan
NWI	National Wetland Inventory
PCB	Polychlorinated Biphenyl
PM	Particulate Matter
PSD	Prevention of Significant Deterioration
RLA	Rapid Lands Assessment
RLMP	Reservoir Land Management Plan
ROS	Reservoir Operation Study
ROW	Right-of-Way
SHPO	State Historic Preservation Officer
SMI	Shoreline Management Initiative
SMP	Shoreline Management Policy
State	State of Tennessee
TDEC	Tennessee Department of Environment and Conservation
TMDL	Total Maximum Daily Load
TERDA	Tims Ford Reservoir Development Agency
TRM	Tennessee River Mile
TVA	Tennessee Valley Authority
TWRA	Tennessee Wildlife Resources Agency
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UTK	University of Tennessee, Knoxville
WMA	Wildlife Management Area

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CHAPTER 1 – PURPOSE AND NEED FOR ACTION

1.1. Introduction

The Tennessee Valley Authority (TVA) prepares reservoir land management plans (RLMPs) to guide land use approvals, private water-use facility permitting, and resource management decisions on TVA-managed public lands. In June of 2000, TVA issued the final *Tims Ford Reservoir Environmental Impact Statement and Land Management and Disposition Plan* (TVA 2000a and 2000b) that examined the potential effects of several alternative methods proposed to manage the 4,685.5 acres of TVA-managed public lands on and surrounding Tims Ford Reservoir (see Figure 1-1).

TVA proposes to revise the 2000 Tims Ford Reservoir Land Management and Disposition Plan[1] (2000 RLMP) by reviewing all existing land allocations to address legacy issues including parcels allocated as Zone 8 (Conservation Partnership), grandfathered facilities, lack of clear planning below the 895-foot contour, the land conveyances to and from the State of Tennessee (State), as well as responding to new issues and changes in land uses on the reservoir. To resolve these issues, TVA proposes to change the land use allocations of approximately 560.2 acres[2] of the 4,685.5 acres (12 percent) of public lands under stewardship by TVA on Tims Ford Reservoir in Franklin and Moore counties in middle Tennessee.

The purpose of TVA's RLMP planning process is to apply a systematic method of evaluating and identifying the most suitable uses of TVA-managed public lands in furtherance of TVA's responsibilities under the TVA Act. The RLMP planning process also supports compliance with applicable state and federal regulations and executive orders, and helps 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 reservoirs. Updates to RLMPs are needed to reflect changing land use needs and circumstances and to incorporate TVA's business needs and goals for managing natural resources on public lands.

Up-to-date RLMPs are needed to make land planning allocations on reservoirs consistent with standing TVA policies like the Land Policy and the Shoreline Management Policy, regulations like Section 26a of the TVA Act, and other guidance incorporating TVA's goals for managing natural resources on TVA public lands. RLMPs govern decisions about whether land is disposed of or retained and establish how the land may be used and by whom.

The proposed draft 2025 Tims Ford Reservoir Land Management Plan (2025 RLMP) revision is consistent with the TVA Land Policy, Natural Resource Plan (NRP),

[1] Although the 2000 plan was referred to as a Reservoir Land Management and Disposition Plan, the updated plan will be referred to as a Reservoir Land Management Plan, as all planned dispositions between TVA and the State of Tennessee have been approved and completed.

[2] Includes previously unallocated lands.

Figure 1-1 Tennessee River Watershed and TVA-Managed Reservoir Land

Comprehensive Valleywide Land Plan (CVLP), and TVA's goals for managing natural resources on public lands.

In November 2006, the TVA Board of Directors (Board) approved the TVA Land Policy to govern the retention, disposal, and planning of interests in real property. The Land Policy allows changes to land use allocations outside of the normal land planning process under three circumstances: (1) Rectifying administrative errors, (2) Rezoning to implement the Shoreline Management Policy, and (3) Rezoning for water-access purposes for industrial or commercial recreation operations on backlying land. The proposed land use allocations on Tims Ford Reservoir do not meet these criteria for an 'off-cycle' allocation change; therefore, a revision to the 2000 RLMP is needed.

TVA's natural resource management practice promotes the implementation of sustainable, cost-effective practices to balance protection and enhancement of ecological and cultural resources with providing multiple uses of the public lands. Through this approach, TVA ensures that resource stewardship issues and stakeholder interests are considered and conflicts are minimized. Resource management is based on cooperation, communication, coordination, and consideration of stakeholders potentially affected by resource management. TVA recognizes that the management or use of one resource affects the management or use of others; therefore, an integrated approach through the planning process is more effective than considering resources individually.

1.2. Background

Shortly after its creation in 1933, TVA began a dam and reservoir construction program that required the purchase of approximately 1.3 million acres of land for the creation of 46 reservoirs within the Tennessee River Valley region (Valley). Most of these lands are located underneath the water of the reservoir system or have since been sold by TVA or transferred to other state or federal agencies. Today, TVA maintains custody and control of approximately 293,000 acres of reservoir property and approximately 470,000 acres of inundated property on behalf of the United States (U.S.) (collectively referred to as TVA public land). TVA manages these public 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 TVA region.

In managing public lands and resources under its authority, TVA seeks to provide effective and efficient management of natural, cultural, visual and recreation resources to meet all regulatory requirements and applicable guidelines. TVA develops RLMPs to integrate land and water program goals, balance competing and sometimes conflicting resource uses, and to provide for optimum public benefit.

In 1970, TVA operations of Tims Ford Dam on the Elk River began, creating a reservoir with approximately 309 miles of shoreline and 10,680 acres of surface water at normal summer pool. TVA did not have a Tims Ford RLMP prior to the *Tims Ford Reservoir Land Management and Disposition Plan and Environmental Impact Statement* (TVA 2000a and 2000b) for managing its 4,685.5 acres[3] of public lands on the reservoir. However, TVA did

[3] This percentage calculation included approved allocation changes that have occurred since the approval of the 2000 Tims Ford RLMP.

manage many of the Tims Ford Reservoir lands in accordance with Contract TV-50000A in partnership with the Tennessee Elk River Development Agency (TERDA). The TERDA organization was sunset by the State in 1996, and all lands and responsibilities owned by TERDA were assumed by the Tennessee Department of Environment and Conservation (TDEC). TVA and TDEC entered into a new agreement in 1998 for the joint management of public lands on Tims Ford, including the formal planning of those lands (2000 RLMP) and a plan for TVA and the State to “swap” lands to allow for better land management. Due to these unusual circumstances, the 2000 RLMP included some allocations outside of the seven-zone allocation system to identify lands that would be transferred between the agencies. In addition, lands below the 895-foot contour were not allocated in a traditional manner; rather, the RLMP stated that these lands would be managed in accordance with the backlying allocation. The transfer of lands between TVA and the State was completed in 2010, and the 1998 agreement with the TDEC was terminated.

In August 2011, the Board approved TVA’s NRP and authorized the Chief Executive Officer (CEO) to implement it. The NRP was updated by TVA in May 2020. The NRP guides TVA’s natural resource management in the areas of (1) Reservoir Lands Planning, (2) Section 26a Permitting and Land Use Agreements, (3) Public Land Protection, (4) Land and Habitat Stewardship, (5) Nuisance and Invasive Species Management, (6) Cultural Resource Management, (7) Water Resources Stewardship, (8) Recreation, (9) Ecotourism, and (10) Public Outreach and Information. The NRP guides TVA to engage in reservoir lands planning in order to maintain the quality of life in the Valley and balance the sometimes competing needs of shoreline development, recreational use, sensitive and natural resource management, and other important uses.

As part of the NRP, TVA adopted the CVLP to guide use of approximately 293,000 acres of TVA-managed property on 46 reservoirs. The CVLP established land use allocation ranges across all TVA-managed reservoir lands. These ranges are targets within which TVA intends to maintain a balance of shoreline development, recreational use, sensitive and natural resource management, and other uses. The CVLP and its target ranges enable TVA and the public to consider land use allocations across the entire reservoir system and determine whether too much or too little attention is being given to particular land uses on a system-wide basis. In August 2017, the Board approved updates to the CVLP target ranges to reflect new RLMPs for eight TVA reservoirs. Each time TVA proposes revisions to its RLMPs, it must determine whether the new allocations on the reservoir continue to fall within the CVLP target ranges across all reservoir lands.

During the reservoir lands planning process, TVA also completes an environmental review consistent with the National Environmental Policy Act (NEPA) to consider potential environmental impacts associated with the proposed land use allocations. This draft environmental assessment (EA) is prepared to inform TVA decision- makers in the selection of an appropriate plan for these public lands, while providing the public with opportunities to be involved in the process. The 2000 RLMP environmental impact statement (EIS) is incorporated by reference (TVA 2000a).

1.3. Decision to be Made

The primary decision before TVA is whether to adopt one of the proposed action alternatives (Alternatives B, C or D) and revise the 2000 RLMP for the management of TVA-controlled public land around Tims Ford. The draft 2025 RLMP requires approval by the TVA CEO if it is to be adopted for long-term land stewardship on Tims Ford Reservoir.

1.4. Related Environmental Reviews

The following environmental reviews are relevant to TVA's proposed revision of the Tims Ford RLMP:

Tims Ford Reservoir Environmental Impact Statement (TVA 2000a) and Land and Disposition Management Plan (TVA 2000b)

As noted above, TVA issued the Tims Ford RLMP in 2000 addressing the management of 4,667.5 acres of public lands on the reservoir (TVA 2000b). Because this draft EA addresses proposed changes to the 2000 RLMP that was reviewed in the 2000 final EIS, and no more than 10.5 percent[4] of TVA-managed lands would change allocation under the EA's three proposed action alternatives, the 2000 EIS provides relevant information about the environmental impacts associated with parcel allocations that would be carried forward, unchanged, under the original EIS alternatives (TVA 2000a). The 2000 EIS likewise provides important information about the affected environmental resources and is helpful to TVA in preparing updated resource information in Chapter 3.

Reservoir Operations Study Final Programmatic Environmental Impact Statement (TVA 2004)

The Reservoir Operations Study (ROS) evaluated alternative ways to operate the TVA reservoir system to produce greater overall public value. Specific changes in the operation of TVA reservoirs were implemented in 2004 because of this study. Tims Ford Reservoir was identified in the ROS as a "transitional reservoir" with flood storage of approximately 120,000 acre-feet. Under the ROS, the reservoir water levels begin rising on April 1 and reach summer pool around May 15; drawdown begins November 1 and reaches winter levels around December 1. The ROS EIS includes environmental resource information about Tims Ford.

Shoreline Management Initiative (SMI): An Assessment of Residential Shoreline Development Impacts in the Tennessee Valley Final Environmental Impact Statement (TVA 1999)

In 1998, TVA completed the SMI EIS analyzing possible alternatives for managing residential shoreline development throughout the Tennessee River Valley. The resulting Shoreline Management Policy (SMP) defines the standards for vegetation management, docks, shoreline stabilization, and other residential shoreline alterations. Across the TVA reservoir system, approximately 38 percent of the total shoreline is available for residential

[4] This percentage calculation includes approved allocation changes that have occurred since the approval of the 2000 Tims Ford RLMP.

development, and one-third of that 38 percent of shoreline had been developed by the mid-1990s.

The 2025 RLMP draft EA tiers from the final SMI EIS concerning the categorization and management of TVA-owned shoreline access land on the reservoir. Approximately 309 miles of Tims Ford Reservoir shoreline is owned and managed by TVA. In accordance with TVA's SMP, TVA has traditionally categorized the residential shoreline for previous land plans based on resource data collected from field surveys. During the development of the SMI EIS, a resource inventory was conducted for sensitive species and their potential habitats, archaeological resources, and wetlands along the residential shoreline. The shoreline categorization system established by the SMP was composed of three categories: Shoreline Protection, Residential Mitigation, and Managed Residential. In its RLMPs, TVA identifies which parcels are to be managed for Shoreline Access (Zone 7). However, TVA does not identify in the RLMP whether the shoreline access parcels are to be managed for Shoreline Protection, Residential Mitigation, or Managed Residential.

Natural Resource Plan and Environmental Impact Statement (TVA 2020)

In 2020, TVA completed an update of its Natural Resource Plan, which guides its natural resource stewardship efforts (TVA 2020). The NRP, first developed in 2011, addresses TVA's management of biological, cultural and water resources, recreation, reservoir lands planning, and public engagement. The NRP's goal is to integrate the objectives of these resource areas, provide for the optimum public benefit, and balance sometimes conflicting resource uses. In updating the NRP, TVA completed a supplemental EIS based on the 2011 NRP EIS. The 2020 supplemental EIS describes TVA's resource management programs and activities, as well as the environmental impacts of those activities. TVA's updated NRP categorized existing and new programs into the 10 focus areas listed above in Section 1.2. Establishing new focus areas is intended to result in additional beneficial impacts to natural resources while providing TVA with an adaptable framework for implementing stewardship programs and activities over the next 20 years.

As part of the NRP, TVA adopted a CVLP to guide use of approximately 293,000 acres of TVA-managed property on 46 reservoirs. The CVLP is composed of land use allocation ranges across all TVA-managed reservoir lands. These ranges are targets within which TVA intends to maintain a balance of shoreline development, recreational use, sensitive and natural resource management, and other uses. The CVLP and its target ranges enable TVA and the public to consider land use allocations across the entire reservoir system and determine whether too much or too little attention is being given to particular land uses on a system-wide basis. In August 2017, the Board approved updates to the CVLP target ranges to reflect new RLMPs for eight TVA reservoirs.

Multiple Reservoir Land Management Plans Final Environmental Impact Statement (TVA 2017)

On August 23, 2017, the Board approved the proposed Multiple RLMPs for TVA-managed public lands on eight reservoirs in Alabama, Kentucky, and Tennessee: Chickamauga, Fort Loudoun, Great Falls, Kentucky, Nickajack, Normandy, Wheeler and Wilson. The Board also approved the proposed changes to the CVLP land use allocation target ranges, which

were initially set forth in the NRP in 2011 and serve to aid decision making across the entire TVA reservoir system, including Tims Ford Reservoir. The final EIS for this project was published in July 2017. TVA's proposed modifications to the 2000 RLMP must be within the CVLP target ranges established in the final 2017 EIS and approved by the Board.

1.5. Scoping and Public Involvement

Scoping, which is integral to the process for implementing NEPA, is a procedure that solicits public input to the NEPA process to ensure that: (1) issues are identified early and properly studied; (2) issues of little significance do not consume substantial time and effort; (3) the NEPA document is thorough and balanced; and (4) delays caused by an inadequate review are avoided. TVA's NEPA procedures require that the scoping process commence soon after a decision has been reached to prepare a NEPA review in order to provide an early and open process for determining the scope and for identifying the significant issues related to a proposed action.

When considering the scope of a NEPA review, TVA considers the requirements of Executive Order (EO) 11988 (Floodplains), EO 13112 (Invasive Species), EO 13751 (Safeguarding the Nation from the Impacts of Invasive Species), EO 11990 (Protection of Wetlands), and applicable laws including the National Historic Preservation Act, Endangered Species Act, Clean Water Act, and Clean Air Act.

On June 24, 2024, TVA initiated the public scoping process for the 2025 RLMP planning process. TVA notified the public of the initiation of the planning process in a variety of ways. TVA published information about the review and planning effort on the TVA webpage, notified the media, published notices in five local newspapers, and sent notices to numerous individuals, organizations, and intergovernmental partners with information about the review.

TVA established a project website as the primary platform for public outreach and information for the 2025 RLMP revision. The 2025 RLMP revision project website is intended to serve as the primary hub for distributing information to the public. The website instructed the public on how to submit scoping comments via email or mail. During the public scoping period, TVA hosted a Virtual Public Meeting on July 10, 2024, and added a Facebook event to raise awareness of the availability of the meeting; approximately 100 people were reached through the meeting and event formats.

The public notice initiated a 60-day public scoping period, which concluded on August 9, 2024. TVA prepared a scoping report to summarize its outreach efforts and the input that was received from the public and other agencies during the scoping period, and the scoping report is available on the 2025 RLMP revision project website.

1.5.1 Public Scoping Comments

During the public scoping period, TVA received 49 submissions from members of the public and government entities. Of the 49 comments, 44 were received electronically via email or online comment forms and five were received via mail. Of the 49 submissions, 46 were from individual members of the public, none were from state or local government agencies,

and three were from local community or business groups. The comments received during the public scoping period are presented in the scoping report.

Of the 49 submissions, 11 comments requested parcels allocated as Zone 8 (Conservation Partnership) be reallocated to Zone 7 (Shoreline Access) or requested the ability to request individual private water-use facilities (docks) for their property. Two comments supported reallocating some or all of the Zone 8 parcels to Zone 4 (Natural Resource Conservation). Other comments related to Zone 8 included: supporting Zone 8 parcels keeping existing shoreline access rights or expanding existing rights; concern about private docks due to boat traffic; requests to install riprap and manage shoreline vegetation; supporting reviewing Zone 8 parcels individually and assessing the most appropriate decision for each (i.e. one size does not fit all); clearer rules for Zone 8; supporting removal of conservation easements and treating Zone 8 similar to Zone 7 (Shoreline Access).

Other commenters also wanted TVA shoreline property fronting their private residential property reallocated to Zone 7. Two commenters wanted TVA property to be reallocated from Zone 5 (Industrial) to Zone 7. Two commenters wanted TVA property to be reallocated from Zone 6 (Developed Recreation) to Zone 7. Five commenters wanted TVA property reallocated from Zone 4 to Zone 7 and an additional three commenters wanted the Zone 4 property reallocated to Zone 7 and for hunting near their property to be banned.

Twelve commenters expressed different concerns about water safety including boating safety, increased traffic on the reservoir, decreased water quality, and increased shoreline erosion due to wave wash. Many of these commenters wanted to see an increase of shoreline structure enforcement on the reservoir to reduce unapproved water-use facilities or were concerned that TVA was not doing enough shoreline structure enforcement on the reservoir.

Three commenters also wanted no new development on Tims Ford Reservoir, and an additional commenter wanted no more marinas on Tims Ford Reservoir. Three commenters specifically mentioned parcels that they want to see remain undeveloped and allocated as Zone 4.

Two commenters supported the allocation changes described on the 2025 RLMP revision website with one commenter specifically supporting the flexibility in permitting rules for grandfathered docks.

1.6. Issue and Resource Identification

This draft EA is a programmatic document that addresses the proposed changes to the 2000 RLMP, which would allocate TVA-managed lands to the appropriate land use zone. This EA also evaluates potential impacts associated with the various types of land uses permitted under each land use allocation zone. The proposed draft 2025 RLMP does not include specific projects, such as building new water-use facilities, developing campgrounds or industrial sites, and effects of such projects are not evaluated in this programmatic review. Whenever such individual projects are proposed in the future, TVA will determine the need for permits, coordination with other agencies (e.g., State Historic Preservation Officer (SHPO), U.S. Fish and Wildlife Service (USFWS) and others), and the appropriate level of NEPA review and documentation and will prepare site specific

environmental reviews. Additionally, this programmatic review does not address the operation of existing facilities, such as dams, electrical substations, or visitor centers, nor does it address the management of water levels in the reservoirs, which was evaluated in TVA's Reservoir Operations Study (TVA 2004).

TVA internal reviews of current and historical information, reservoir data collected, and public input were used to identify the following resources/issues for evaluation in this draft EA. The effects of implementing each alternative were evaluated with respect to the following issues:

Prime Farmland – Existing land use patterns along the shoreline and adjacent back-lying land have been determined on most parcels by TVA land acquisition, land disposals, and land use agreements. A majority of the TVA-managed parcels are committed to existing land uses with little to no potential for change of those land use allocations. Proposed allocation changes were evaluated to determine whether there would be effects to prime farmland on TVA-managed public lands.

Recreation – Existing developed recreation facilities (public or commercial) available to meet public needs were identified, as were those lands that are important for dispersed recreation (e.g., hunting, bank fishing, bird watching, hiking, etc.). The effects of implementing each alternative on recreation opportunities in the vicinity of Tims Ford Reservoir were evaluated.

Terrestrial Ecology – Terrestrial plant and animal communities found on TVA-managed lands in this plan were characterized using existing databases. Issues include the identification and protection of significant natural features, rare species habitat, important wildlife habitat, or locally uncommon natural community types. TVA will be consistent with EO 13186 on migratory birds and EO 13751 (Safeguarding the Nation from the Impacts of Invasive Species) which amends EO 13112.

Aquatic Ecology – TVA characterized the aquatic plants and animals found in the waters of the reservoir. TVA identified habitat for rare species, important aquatic habitat, or locally uncommon aquatic community types. The effect of implementing each alternative on aquatic ecology was evaluated.

Threatened and Endangered Species – TVA identified plants and animals that are federally or state-listed, proposed for listing, or candidates for listing as threatened and endangered, and are known to or are likely to exist in the vicinity of Tims Ford Reservoir. The presence of potentially suitable habitat within the TVA parcels was discussed for these species. The effect of implementing each alternative on threatened and endangered species was evaluated as well. TVA will comply with the Endangered Species Act and the Bald and Golden Eagle Protection Act.

Water Quality – TVA described water quality conditions within the reservoir, based upon the Reservoir Ecological Heath Monitoring Program or similar indices, as well as state classifications and advisories. The effect of implementing each alternative on water quality in the reservoirs was evaluated.

Wetlands – Wetlands on TVA land along the reservoir shoreline were identified. TVA will comply with EO 11990 on wetlands and the Clean Water Act. The effects of implementing each alternative on wetlands on the reservoirs included in this plan were evaluated.

Floodplains – Floodplains on TVA-managed land along the reservoir shoreline were identified. TVA will comply with EO 11988 (Floodplain Management). The effects of implementing each alternative on floodplains on the reservoirs included in this plan were evaluated.

Air Quality – Compliance with National Ambient Air Quality Standards (NAAQS), which establish safe concentration limits of various air pollutants, was evaluated.

Cultural and Historic Resources – Precontact or historic districts, known sites, buildings, structures, or objects on or near the TVA-managed lands around the reservoir were identified. TVA will comply with Section 106 of the National Historic Preservation Act). The effects of implementing each alternative on cultural resources on the reservoir were evaluated.

Natural Areas – TVA identified special and unique natural areas on or adjacent to TVA managed lands on Tims Ford Reservoir. The potential effect of implementing each alternative on these areas was evaluated.

Visual Resources – The aesthetic settings of the reservoir were characterized, and scenic and distinctive areas frequently seen by reservoir users and adjacent reservoir residents were generally described. The potential effect of implementing each alternative on the natural beauty of the shoreline was evaluated.

Socioeconomics – The current population, labor force, employment statistics, and income of the population within the region of the reservoir were identified. The effect of implementing each alternative on socioeconomics was evaluated.

1.7. Public Review Process

TVA reviewed the public's scoping input when developing this EA. This draft EA has been prepared and is being issued for a 60-day public review and comment period. The draft EA will be available for review to the public and agency partners. The availability of the draft 2025 RLMP and draft EA has been announced in a media release and in local newspapers, and the draft 2025 RLMP and draft EA have been posted on TVA's Tims Ford RLMP project website. TVA's agency involvement includes sending notices to local, state and federal agencies and federally recognized tribes to inform them of the availability of the draft EA.

Comments that are received during the draft 2025 RLMP and draft EA public comment period will be carefully reviewed. TVA will review and consider these comments when finalizing its 2025 RLMP and EA. TVA will respond to comments in the final EA and, if appropriate, will issue a finding of no significant impact.

1.8. Required Permits and Consultation

No federal permits are required to develop an RLMP. Site-specific information on reservoir resources has been characterized in this draft EA, and potential impacts on these resources were considered in making land use allocation recommendations. When specific actions are proposed on TVA parcels addressed in the draft RLMP, additional site-specific environmental reviews for these actions would be undertaken as necessary to address potential project specific impacts.

Appropriate agencies and offices regulating historic resources and endangered species have been consulted during this planning process. TVA will comply with the Programmatic Agreement (PA) executed in January 2020 in consultation with the Advisory Council on Historic Preservation, seven SHPOs, including the Tennessee SHPO, and federally recognized Indian Tribes, to address a suite of activities. This PA addresses TVA's compliance with Section 106 of the National Historic Preservation Act when implementing the various land plan activities. In June 2025, TVA initiated consultation with the Tennessee SHPO and Tribes who have expressed an interest in Franklin and Moore counties. TVA will also complete any necessary consultation with the USFWS under Section 7 of the Endangered Species Act.

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CHAPTER 2 - ALTERNATIVES

2.1. Description of Alternatives

The proposed action is to amend the 2000 RLMP by revising parcels and land use zones on TVA-managed land on Tims Ford Reservoir. The proposed revisions are in response to new issues and changes in conditions and circumstances that affect approximately 560.2 acres (12.0 percent) of the 4,685.5 acres of TVA public lands on Tims Ford Reservoir.

During the reservoir lands planning process, TVA seeks to address issues and concerns raised by the public regarding land use allocation and management of the TVA parcels. TVA staff has utilized a systematic process to arrive at land use allocation recommendations. The proposed allocations address sensitive resources and issues and concerns raised by the public and stakeholders during the scoping period. Implementation of an RLMP minimizes conflicting land uses and makes it easier to handle requests for use of public land.

2.2. Process for Planning Reservoir Land

The draft 2025 RLMP was developed by a team of land managers and technical experts from TVA, knowledgeable about the reservoir and its resources. The planning team made land use decisions by integrating public needs, environmental conditions, economic benefits, state and federal policies, and the original congressional intent of the Tims Ford Reservoir project. The process includes information from resource data, computer analysis, the public, other agencies, and knowledgeable TVA staff.

The reservoir land management planning process involves allocation of TVA fee-owned (TVA-managed) land to defined land use zones (see Appendix A). 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 tracts previously sold to private entities to identify existing shoreline access rights. In addition, the planning team honored all existing commitments including leases, licenses, and easements. TVA also reviewed historical files, particularly those related to TERDA and past permitting practices

The term “land use zone” refers to a descriptive set of criteria given to distinct areas of land based on location, features, and characteristics. Each land use zone provides a description of how TVA will manage its public land, and allocation of a parcel to a particular land use zone designates that land for specific uses. TVA’s RLMPs apply a seven zone Single-Use Parcel Allocation methodology, which defines separate parcels of reservoir land and allocates those parcels and affiliated land rights to one of seven land use zones. Land planning zone definitions of the allowable land uses within each TVA land use zone are included as Appendix B.

TVA Land Planning Zones

Zone 1 - Non-TVA Shoreland
Zone 2 - Project Operations
Zone 3 - Sensitive Resource Management
Zone 4 - Natural Resource Conservation
Zone 5 - Industrial
Zone 6 - Developed Recreation
Zone 7 - Shoreline Access

Uniquely, in the final 2000 RLMP, as a result of public comments on the draft 2000 RLMP and EIS, TVA added a new Zone 8 (Conservation Partnership) land use allocation zone for certain parcels meeting a distinct set of criteria fronting residential property. For the draft 2025 RLMP, the Zone 8 qualification criteria have been updated and are described in Appendix C along with certain restrictions on Zone 7depending on circumstances.

Approximately 896 acres (19 percent) of the TVA-managed land surrounding Tims Ford Reservoir are committed to certain land uses consistent with existing land use agreements, TVA operations and other public infrastructure. Agricultural licenses and cooperative agreements are not considered as committed uses because they are an interim use of TVA-managed land. There are some lands on Tims Ford Reservoir that are not considered committed but have been planned with consideration of historical land use due to TERDA land management practices prior to 1996 which is taken into consideration during the lands planning process.

Approximately 3,790 acres (81 percent) of the TVA-managed land surrounding Tims Ford Reservoir are uncommitted. TVA staff has allocated these uncommitted lands based on the seven land use allocation zones (Appendix B). The locations of sensitive natural and historic resources were considered when determining the suitability of potential land uses for each parcel.

2.3. Property Administration

In the proposed draft 2025 RLMP, each parcel of TVA-managed land around the reservoirs is categorized based upon a suitable use that is consistent with TVA policies and guidelines and applicable laws and regulations. Property administration procedures for all TVA-managed lands are generally the same for each alternative under consideration. As administrators of these public lands, TVA will use the RLMP, along with TVA policies and guidelines, to manage resources and to respond to requests for the use of TVA public land.

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

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 known sensitive resources would not require an allocation change as long as such projects are compatible with the use of the allocated zone. For example, the proposed construction of a water intake structure could be compatible with a

reservoir parcel allocated as Zone 4 (Natural Resource Conservation), provided natural resource conservation activities could continue. Proposed public works/utility projects would be subject to a project-specific environmental review. Any other requests involving a departure from the planned uses would require the approval of the Board or as delegated by the Board.

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.

2.4. Alternatives

In the 2025 RLMP draft EA, four alternatives are under consideration. Under Alternative A - the No Action Alternative, TVA would continue to manage its lands based on the 2000 RLMP and would not change any parcel allocations. Under the other three proposed Action Alternatives (B, C and D), TVA would revise the 2000 RLMP and revise the land use allocations for 95 parcels in response to new issues and changes in conditions and circumstances that affect approximately 560.2 acres (12.0 percent) of the 4,685.5 acres of public lands managed by TVA on Tims Ford Reservoir. Under Alternatives B, C and D, TVA would not change the land use allocation for 84 parcels. The allocation for these parcels would be incorporated into the updated Tims Ford RLMP.

Alternative B is the Preferred Alternative. Of the 560.2 acres, TVA would allocate 94.8 acres or 2.0 percent to reflect existing land use agreements or commitments. The remaining 465.4 acres (9.9 percent) involve parcel allocations that are not based on existing land use agreements or commitments. The allocation change acres includes all Zone 8 (Conservation Partnership) acreage in all three alternatives. Allocation change details are available in Tables 2-1, 2-2 and 2-3 below.

The proposed draft 2025 RLMP would be updated to become consistent with current lands planning practices and would consider proposals previously provided to TVA. Consistent with TVA RLMP planning methodology, the public lands managed by TVA on Tims Ford Reservoir would be reviewed by the planning team and placed into one of the seven land use zones, with the exception of Alternative C, which retains the Zone 8 allocation unique to Tims Ford Reservoir consistent with existing land use and staff recommendations.

Regardless of the alternative selected, the following conditions would apply:

- Any proposed development or activity on public land will be subject to TVA approval pending the completion of an additional site-specific environmental review to evaluate the potential environmental effects of the proposal. As necessary, TVA would impose any necessary mitigative measures as conditions of approval for the use of public lands to minimize adverse environmental effects.
- Future activities and land uses will be guided by the TVA Act and TVA's Land Policy, Shoreline Management Policy, NRP and CVLP.

TVA land use allocations are not intended to supersede deeded land rights or land ownership.

2.4.1. Alternative A – The No Action Alternative

Under the No Action Alternative, TVA would not take any action to amend the 2000 RLMP for TVA-managed lands on Tims Ford Reservoir. All parcels would continue to be managed by TVA according to the allocations of the 2000 RLMP and subsequent approved allocation changes that have taken place since the 2000 RLMP was completed. Consideration of the No Action Alternative is required under NEPA and regulations promulgated by TVA to implement NEPA; the analysis of this alternative serves as a baseline for comparing the other action alternatives.

2.4.2 Alternative B – Proposed RLMP Alternative (Preferred Alternative)

Under Alternative B, approximately 10.2 percent (477.6 acres) of TVA owned land on Tims Ford Reservoir would be allocated to Zone 2, and about 7.8 percent (366.3 acres) would be allocated as Zone 3. Approximately 57.2 percent or 2,681.2 acres would be allocated as Zone 4. One 0.2-acre parcel (less than 1 percent) would be allocated to Zone 5 to reflect existing industrial uses. Approximately 13.7 percent (641.7 acres) would be allocated to Zone 6. Approximately 11.1 percent (518.5 acres) would be allocated as Zone 7. Additionally, there would be changes in how the Zone 7 parcels are managed. Under Alternative B, there would no longer be a Zone 8 allocation; rather, those parcels would be reallocated to either Zone 7 (with Restrictions) or Zone 4, depending on the unique circumstances (see Appendix C for details).

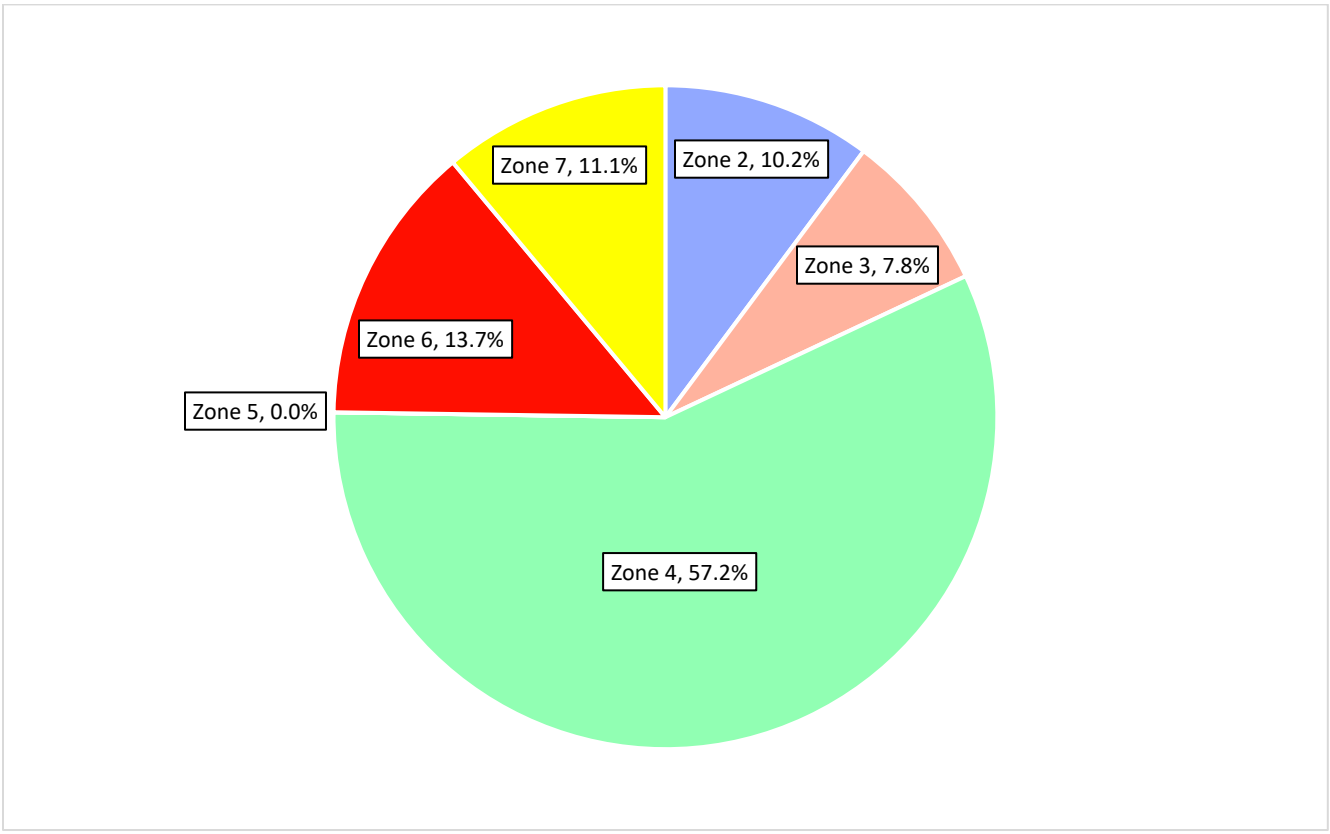

Figure 2-1 Percent of Tims Ford Acreage Allocated by Zone (Alternative B)

A table listing each parcel under Alternative B including parcel number, zone allocation and parcel acreage is included as Appendix D. A comparison of each parcel allocation change for Alternatives A, B, C and D is included as Appendix E.

Table 2.1 Proposed Parcel Allocation Changes Under Alternative B

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation[5]	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
NA- Road ROW (41A)	NA Zone 0	94	6.7 acres Zone 2	Unallocated tract proposed for allocation to Zone 2 for existing road ROW.
NA-22/22-4	NA Zone 0	30	0.2 acre Zone 2	Unallocated tract proposed for allocation to Zone 2 for existing road ROW.
NA-26-1/26	NA Zone 0	38	0.1 acre Zone 2	Unallocated tract proposed for allocation to Zone 2 for existing road ROW.
NA-59/59A	NA Zone 0	91	0.3 acre Zone 2	Unallocated tract proposed for allocation to Zone 2 for existing road ROW.
NA-77 ROW	NA Zone 0	149	0.2 acre Zone 2	Unallocated tract proposed for allocation to Zone 2 for existing road ROW.
NA-82 ROW	NA Zone 0	123	2.3 acres Zone 2	Unallocated tract proposed for allocation to Zone 2 for existing road ROW.
NA-69 Road ROW (S)	NA Zone 0	103	0.3 acre Zone 2	Unallocated tract proposed for allocation to Zone 2 for existing road ROW.
NA-69 ROW (N)	NA Zone 0	103	0.2 acre Zone 2	Unallocated tract proposed for allocation to Zone 2 for existing road ROW.
NA - 82 ROW	NA Zone 0	123	2.3 acre Zone 2	Unallocated tract proposed for allocation to Zone 2 for existing road ROW.
NA-86 Road ROW	NA Zone 0	123	0.2 acre Zone 2	Unallocated tract proposed for allocation to Zone 2 for existing road ROW.

[5] 2000 RLMP acreage differs from current acreage because 1) the 2000 RLMP acreage planned TVA and State lands, and 2) the acreage only accounted for lands above the 895-foot contour. The new plan accounts for only TVA lands both above and below the 895-foot contour.

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation[5]	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
NA-SP 17/18	NA Zone 6	17	0.8 acre Zone 2	Portion of Zone 6 (State Park parcel) proposed for allocation to Zone 2 for existing road ROW.
NA-SP 8/10	1.8 acres Zone 6	11	0.4 acre Zone 2	Portion of Zone 6 (State Park parcel) proposed for allocation to Zone 2 for existing road ROW.
NA-Taylor Creek	8.9 acres Zone 7	84	0.2 acre Zone 2	Portion of Zone 7 proposed for allocation to Zone 2 for existing road ROW.
NA-Winchester City Park	79.3 acres Zone 6	123	3.3 acre Zone 2	Portion of Zone 6 (State and local park parcel) proposed for allocation to Zone 2 for existing road ROW.
NA-Adj Railroad	NA Zone 0	133	1.9 acres Zone 3	Unallocated tract proposed for allocation to Zone 3 due to adjacent tract's proposed allocation to Zone 3. This tract will be merged with adjacent parcel.
NA-Islands	NA Zone 0	97	3.5 acres Zone 3	Unallocated tract proposed for allocation to Zone 3 due adjacent tracts proposed allocation to Zone 3. This tract will be merged with adjacent parcel.
NA-22/22-4	NA Zone 0	30	1.5 acres Zone 4	Unallocated tract proposed for allocation to Zone 4 due to adjacent lands proposed for same allocation. This tract will be merged with the adjacent parcel.
NA-24	NA Zone 0	34	0.7 acre Zone 4	Unallocated tract proposed for allocation to Zone 4 due to adjacent lands proposed for same allocation. This tract will be merged with the adjacent parcel.
NA-88	NA Zone 0	133	0.1 acre Zone 3	Unallocated tract proposed for allocation to Zone 3 due to

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation[5]	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
				adjacent lands proposed allocation for Zone 3.
NA-Islands	NA Zone 0	122	1.5 acres Zone 6	Unallocated tract proposed for allocation to Zone 6 as islands are part of Winchester City Park
NA-Tims Ford Marina	NA Zone 0	18	2.2 acres Zone 6	Unallocated tract proposed for allocation to Zone 6 due to existing commercial marina and campground operation.
6-1	0.4 acre Zone 8	7	0.9 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
7	156.5 acres Zone 7	8	13.8 acre Zone 5	Portion of Zone 7 proposed for reallocation to Zone 5 to correct an administrative error where a commercial water intake was incorrectly mapped.
7A	0.2 acre Zone 5	9	0.2 acre Zone 7	Entire Zone 5 proposed for reallocation to Zone 7 where an administrative error (mapping error) occurred in the 2000 RLMP.
8	186.5 acres Zone 4	11	7.9 acre Zone 2	Portion of Zone 4 proposed for allocation to Zone 2 for existing road ROWs.
8-1	1.2 acres Zone 8	14	2.1 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
8-2	0.6 acre Zone 8	13	2.0 acre Zone 4	Road adjoins TVA property making parcel ineligible for Zone 7 with Restrictions allocation.
15	198.6 acres Zone 3	158	223.9 acres Zone 4	Entire Zone 3 proposed for reallocation to Zone 4 due to a lack of known sensitive resources currently documented. This parcel will be merged with adjacent

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation[5]	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
				parcels for better management.
18-1	0.4 acre Zone 8	155	0.7 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
18-2	0.4 acre Zone 8	154	0.8 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
20	497.3 acres Zone 4	21	6.0 acre Zone 2	Portion of Zone 4 proposed for allocation to Zone 2 for existing road ROW.
20-1	0.1 acre Zone 8	22	0.2 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
20-2	0.3 acre Zone 8	23	0.7 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
20-3	0.3 acre Zone 8	20	1.2 acre Zone 4	Due to existing circumstances, community facilities under Zone 7 with Restrictions criteria would not be feasible, therefore allocation reverts to Zone 4.
22	44.3 acres Zone 4	28	3.0 acre Zone 2	Portion of Zone 4 proposed for allocation to Zone 2 for existing road ROWs.
22-1	0.3 acre Zone 8	26	0.5 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
22-2	0.4 acre Zone 8	27	0.7 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
22-3	0.8 acre Zone 8		3.2 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation[5]	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
		29 25 30	0.7 acre Zone 4 0.05 acre Zone 2	Appendix C. Proposed reallocation to Zone 2 for existing road ROW and proposed reallocation to Zone 4 for TVA-managed lands behind the road where there is no access to the water.
22-4	0.3 acre Zone 8	31	0.7 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
22-5	0.6 acre Zone 8	32	1.0 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
23	23.6 acres Zone 6	28	0.4 acre Zone 2	Portion of Zone 6 proposed for allocation to Zone 2 for existing road ROWs.
26-1	1.4 acres Zone 8	37	3.3 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
28	2,474.9 acres Zone 4	44	0.6 acre Zone 2	Portion of Zone 4 proposed for allocation to Zone 2 for existing road ROWs.
28-1	1.0 acre Zone 8	43 40	2.05 acre Zone 7 (with Restrictions) 0.11 acre Zone 4	Parcel is in a narrow cove. Parcel was reduced in size, reverting only a portion of the parcel to Zone 4 to allow the remaining piece to qualify for Zone 7 with Restrictions.
28-2	0.3 acre Zone 8	41	0.7 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
31	176.1 acres Zone 7	21	0.1 acre Zone 2	Portion of Zone 7 proposed for allocation to Zone 2 for existing road ROW.

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation[5]	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
32	89.3 acres Zone 6	21	0.1 acre Zone 2	Portion of Zone 6 proposed for allocation to Zone 2 for existing road ROW.
33-1	0.8 acre Zone 8	47	2.7 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
34-1	1.4 acre Zone 8	52A 52B	1.5 acre Zone 7 (with Restrictions) 1.1 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
34-2	0.1 acre Zone 8	51	0.4 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
39	45.8 acres Zone 4	48	0.3 acre Zone 7	Portion of Zone 4 proposed for reallocation to Zone 7 where existing, platted subdivision exists with a history of permitting to correct an administrative error from the 2000 RLMP.
39-1	0.4 acre Zone 8	56	0.5 acre Zone 4	Backlying owners have already been accommodated with facilities through alternative means and Zone 8 allocation is not needed.
39-2	0.2 acre Zone 8	57	0.3 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
40	82.0 acres Zone 4	60	0.7 acre Zone 2	Portion of Zone 4 proposed for allocation to Zone 2 for existing road ROWs.
40-1	0.6 acre Zone 8	64	0.9 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation[5]	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
40-2	0.3 acre Zone 8	63	0.4 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
40-3	1.9 acre Zone 8	62	3.4 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
40-4	0.2 acre Zone 8	61	0.42 acre Zone 7 (with Restrictions	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
40-5	0.5 acre Zone 8	58	1.01 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
41	461.7 acres Zone 3	48	40.0 acres Zone 4	Entire Zone 3 proposed for reallocation to Zone 4 due to a lack of known sensitive resources currently documented and management by Tennessee Wildlife Resources Agency (TWRA) (alignment with current lands planning practices). This parcel will be merged with adjacent parcels for better management.
43	83.3 acres Zone 3	48	7.2 acres Zone 4	Entire Zone 3 proposed for reallocation to Zone 4 due to a lack of known sensitive resources currently documented. This parcel will be merged with adjacent parcels for better management.
50	8.3 acres Zone 4	73	0.7 acre Zone 2	Portion of Zone 4 proposed for allocation to Zone 2 for existing road ROWs.
50-1	0.7 acre Zone 8	73 74	0.26 acre Zone 4	Parcel is in a narrow cove. Parcel was reduced in size, reverting only a portion of the

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation[5]	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
			0.88 acre Zone 7 (with Restrictions)	parcel to Zone 4 to allow the remaining portion eligible for Zone 7 with Restrictions allocation.
50-2	0.4 acre Zone 8	75	0.72 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
52-1	0.6 acre Zone 8	78	1.19 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
52-2	0.8 acre Zone 8	77 79	0.48 acre Zone 4 0.91 acre Zone 7 (with Restrictions)	Parcel is in a narrow cove. Parcel was reduced in size, reverting only a portion of the parcel to Zone 4 to allow the remaining portion eligible for Zone 7 with Restrictions allocation.
52-3	0.5 acre Zone 8	80	1.08 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
52-4	0.9 acre Zone 8	81	1.54 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
53	29.5 acres Zone 3	77	46.5 acres Zone 4	Entire Zone 3 proposed for reallocation to Zone 4 due to a lack of known sensitive resources currently documented. This parcel will be merged with adjacent parcels for better management.
55	7.7 acres Zone 6	84	0.1 acre Zone 2	Portion of Zone 6 proposed for allocation to Zone 2 for existing road ROW.
56	14.5 acres Zone 7	84	0.1 acre Zone 2	Portion of Zone 7 proposed for allocation to Zone 2 for existing road ROW.

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation[5]	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
57-1	1.2 acres Zone 8	86	1.62 acres Zone 4	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
57-2	1.5 acres Zone 8	88	2.64 acres Zone 4	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
59	19.7 acres Zone 4	91	1.22 acres Zone 2	Portion of Zone 4 proposed for allocation to Zone 2 for existing road ROW.
59A	0.9 acres Zone 7	91	0.2 acre Zone 2	Portion of Zone 7 proposed for allocation to Zone 2 for existing road ROW.
59A	0.9 acres Zone 7	92	0.1 acre Zone 6	Portion of Zone 7 proposed for reallocation to Zone 6 to support the entrance to an existing public recreation development (Taylor Creek Greenway).
60	4.7 acres Zone 7	94	0.3 acre Zone 2	Portion of Zone 7 proposed for allocation to Zone 2 for existing road ROW.
61	22.6 acres Zone 6	91	0.002 acre Zone 2	Portion of Zone 6 proposed for allocation to Zone 2 for existing road ROW.
62	3.7 acres Zone 4	95	0.8 acre Zone 6	Portion of Zone 4 proposed for reallocation to Zone 6 to support existing backlying public recreation use (Estill Springs City Park).
63	230.2 acres Zone 3	98	22.8 acres Zone 2	Portion of Zone 3 proposed for reallocation to Zone 2 for existing road and transmission line ROWs.
66	13.8 acres Zone 4	94	1.3 acres Zone 2	Portion of Zone 4 proposed for allocation to Zone 2 for existing road ROWs.
66-1	0.5 acre Zone 8	100	1.33 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation[5]	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
68	5.4 acres Zone 7	103	0.1 acre Zone 2	Portion of Zone 7 proposed for allocation to Zone 2 for existing road ROW.
69	12.5 acres Zone 4	103	0.9 acre Zone 2	Portion of Zone 4 proposed for allocation to Zone 2 for existing road ROWs.
69-1	0.2 acre Zone 8	105	0.31 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
70	4.2 acres Zone 3	106	0.8 acre Zone 7	Portion of Zone 3 proposed for reallocation to Zone 7 where existing, platted subdivision exists with a history of permitting to correct an administrative error from the 2000 RLMP.
71-1	1.2 acres Zone 8	114	2.36 acres Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
71-2	0.5 acre Zone 8	113	0.7 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
71-3	1.4 acres Zone 8	111	2.43 acres Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
71-4	0.5 acre Zone 8	110	0.99 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
71-5	0.4 acre Zone 8	109	1.01 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
73-1	0.9 acre Zone 8	117 118	0.15 acre Zone 6	Portions of TVA-managed land fronting existing Camp Riva reallocated to Zone 6 consistent with Developed Recreation allocation. For the

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation[5]	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
			1.39 acre Zone 7 (with Restrictions)	remainder of parcel, Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
73-2	0.7 acre Zone 8	116 117	0.48 acre Zone 7 (with Restrictions) 0.8 acre Zone 6	Portions of TVA-managed land fronting existing Camp Riva reallocated to Zone 6 consistent with Developed Recreation allocation. For the remainder of parcel, Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
75	112.0 acres Zone 4	70	8.6 acres Zone 2	Portion of Zone 4 proposed for allocation to Zone 2 for existing road ROW and a public water intake.
75	112.0 acres Zone 4	71	3.1 acres Zone 6	Portion of Zone 4 proposed for reallocation to Zone 6 to support the development of a public access area (currently informal recreation access).
75	112.0 acres Zone 4	69	0.1 acre Zone 7	Portion of Zone 4 proposed for reallocation to Zone 7 where existing, platted subdivision exists with a history of permitting.
77	59.3 acres Zone 4	149	11.8 acres Zone 2	Portion of Zone 4 proposed for reallocation to Zone 2 for existing road and transmission line ROWs.
77-1	0.2 acre Zone 8	146	0.48 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
77-2	1.1 acre Zone 8	145	1.75 acres Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation[5]	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
77-3	0.2 acre Zone 8	144	0.32 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
78	12.8 acres Zone 5	143	4.0 acres Zone 4	Entire Zone 5 proposed for reallocation to Zone 4 due to a change in the backlying land use to residential with no land rights to allow for private water-use facilities.
79	27.6 acres Zone 6	142	0.9 acre Zone 2	Portion of Zone 6 proposed for allocation to Zone 2 for existing road ROW.
80	23.7 acres Zone 6	123	0.6 acre Zone 2	Portion of Zone 6 proposed for reallocation to Zone 2 for existing road and transmission line ROWs.
81-1	0.8 acre Zone 8	138	1.8 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
83	5.5 acres Zone 5	139	2.5 acres Zone 2	Portion of Zone 5 proposed for allocation to Zone 2 for existing public operations (TWRA).
83	5.5 acres Zone 5	137	2.1 acres Zone 4	Portion of Zone 5 proposed for reallocation to Zone 4 due to a change in the backlying land use to residential with no land rights to allow for private water-use facilities.
84B	2.1 acres Zone 7	130	0.1 acre Zone 6	Portion of Zone 7 proposed for reallocation to Zone 6 to support an existing public launching ramp.
85	8.7 acres Zone 4	130	0.2 acre Zone 6	Portion of Zone 4 proposed for reallocation to Zone 6 to support an existing public launching ramp.
85	8.7 acres Zone 4	128	0.9 acre Zone 2	Portion of Zone 4 proposed for allocation to Zone 2 for existing road ROW.

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation[5]	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
86	9.7 acres Zone 4	123	1.2 acres Zone 2	Portion of Zone 4 proposed for reallocation to Zone 2 for existing road and transmission line ROWs.
86-1	0.2 acre Zone 8	125	0.8 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
86-2	1.1 acres Zone 8	127	2.1 acres Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.
88	23.5 acres Zone 4	134	0.1 acre Zone 7	Portion of Zone 4 proposed for reallocation to Zone 7 where there is a history of permitting, immediately adjacent to an existing Zone 7. This is consistent with current land planning practices.
88	23.5 acres Zone 4	136	5.2 acres Zone 6	Portion of Zone 4 proposed for reallocation to Zone 6 to support the maintenance and possible expansion of existing public access area with limited facilities.
88	23.5 acres Zone 4	133	45.3 acres Zone 3	Portion of Zone 4 proposed for reallocation to Zone 3 due to the presence of sensitive resources.
88b	4.1 acres Zone 4	133	4.1 acres Zone 3	Entire Zone 4 proposed for reallocation to Zone 3 due to the presence of sensitive resources and adjacent tracts proposed allocation to Zone 3. This tract will be merged with adjacent parcel.
88-2	0.4 acre Zone 8	135	1.8 acre Zone 7 (with Restrictions)	Zone 8 parcel proposed for reallocation to Zone 7 with restrictions as outlined in Appendix C.

A comparison of each parcel allocation change for Alternatives A, B, C and D is included as Appendix F.

2.4.3 Alternative C – Modified Zone 8 (Conservation Partnership)

Alternative C would be substantially the same as Alternative B except that the Zone 8 allocation would remain with updated criteria (see Appendix C) and some parcels that would not qualify for the updated Zone 8 allocation would revert to Zone 4. The proposed allocations to Zone 2, Zone 3, Zone 5 and Zone 6 are consistent with Alternative B.

Under Alternative C, approximately 58.0 percent or 2,715.6 acres would be allocated as Zone 4. This would be more acreage (0.8 percent and 34.4 acres) than Alternative B because more Zone 8 parcels would be reallocated to Zone 4 than under Alternatives B and D. Approximately 9.8 percent (459.7 acres) would be allocated as Zone 7 (with restrictions), and this would be less acreage (1.3 percent and 58.7 acres) than Alternative B because there would be no parcels reallocated to Zone 7 (with Restrictions) as they would be in Alternatives B and D. Zone 8 parcels would remain, and the qualification criteria would be modified. Approximately 0.5 percent (24.3 acres) would be allocated to Zone 8.

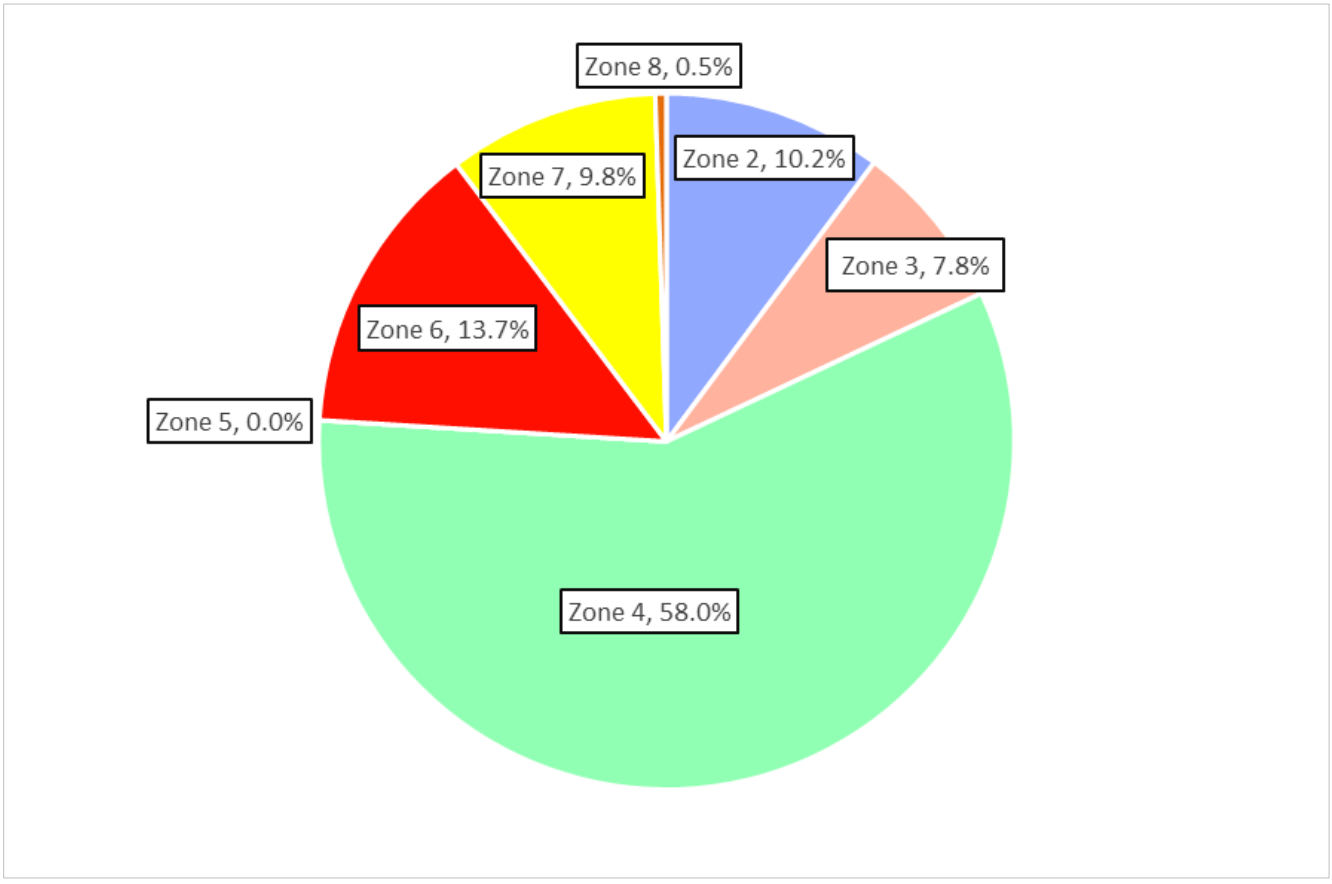

Figure 2-2. Percent of Tims Ford Acreage Allocated by Zone (Alternative C)

Table 2.2 Proposed Parcel Allocation Changes Under Alternative C

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
6-1	0.4 acre Zone 8	7	0.9 acre Zone 8	Proposed updates to Zone 8 criteria and management.
8-1	1.2 acres Zone 8	13	2.0 acres Zone 4	Due to existing circumstances, community facilities under updated Zone 8 criteria would not be feasible, therefore allocation reverts to Zone 4.
18-1	0.4 acre Zone 8	155	0.7 acre Zone 8	Proposed updates to Zone 8 criteria and management.
18-2	0.4 acre Zone 8	154	0.8 acre Zone 8	Proposed updates to Zone 8 criteria and management.
20-1	0.1 acre Zone 8	22	0.2 acre Zone 8	Proposed updates to Zone 8 criteria and management.
20-2	0.3 acre Zone 8	23	0.7 acre Zone 8	Proposed updates to Zone 8 criteria and management.
22-1	0.3 acre Zone 8	26	0.5 acre Zone 8	Proposed updates to Zone 8 criteria and management.
22-2	0.4 acre Zone 8	27	0.7 acre Zone 8	Proposed updates to Zone 8 criteria and management.
22-4	0.3 acre Zone 8	31	0.7 acre Zone 4	Due to existing circumstances, community facilities under updated Zone 8 criteria would not be feasible, therefore allocation reverts to Zone 4.
22-5	0.6 acre Zone 8	32	1.0 acre Zone 8	Proposed updates to Zone 8 criteria and management.
26-1	1.4 acres Zone 8	37	3.3 acres Zone 4	Due to existing circumstances, community facilities under updated Zone 8 criteria would not be feasible, therefore allocation reverts to Zone 4.

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
28-1	1.0 acre Zone 8	43 40	2.1 acre Zone 8 0.1 acre Zone 4	Parcel is in a narrow cove. Parcel was reduced in size, reverting only a portion of the parcel to Zone 4 to make the remaining piece continue to have the Zone 8 allocation.
28-2	0.3 acre Zone 8	41	0.3 acre Zone 8	Proposed updates to Zone 8 criteria and management.
33-1	0.8 acre Zone 8	47	2.7 acres Zone 4	Due to existing circumstances, conservation easement and community facilities under updated Zone 8 criteria would not be feasible, therefore allocation reverts to Zone 4.
34-1	1.4 acre Zone 8	52A 52B	1.5 acres Zone 8 1.1 acres Zone 8	Proposed updates to Zone 8 criteria and management.
34-2	0.1 acre Zone 8	51	0.4 acre Zone 8	Proposed updates to Zone 8 criteria and management.
39-2	0.2 acre Zone 8	57	0.3 acre Zone 8	Proposed updates to Zone 8 criteria and management.
40-1	0.6 acre Zone 8	64	0.9 acre Zone 8	Proposed updates to Zone 8 criteria and management.
40-2	0.3 acre Zone 8	63	0.4 acre Zone 4	Due to existing circumstances, community facilities under updated Zone 8 criteria would not be feasible, therefore allocation reverts to Zone 4.
40-3	1.9 acre Zone 8	59 62	3.4 acre Zone 4	Due to existing circumstances, conservation easement and community facilities under updated Zone 8 criteria would

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
				not be feasible, therefore allocation reverts to Zone 4.
40-4	0.2 acre Zone 8	61	0.4 acre Zone 8	Proposed updates to Zone 8 criteria and management.
40-5	0.5 acre Zone 8	58	1.0 acre Zone 8	Proposed updates to Zone 8 criteria and management.
50-2	0.4 acre Zone 8	75	0.7 acre Zone 4	Due to existing circumstances, conservation easement and community facilities under updated Zone 8 criteria would not be feasible, therefore allocation reverts to Zone 4.
52-1	0.6 acre Zone 8	78	1.2 acre Zone 8	Proposed updates to Zone 8 criteria and management.
52-2	0.8 acre Zone 8	77 79	0.9 acre Zone 8 0.5 acre Zone 4	Parcel is in a narrow cove. Parcel was reduced in size, reverting only a portion of the parcel to Zone 4 to make the remaining piece continue to have the Zone 8 allocation.
52-3	0.5 acre Zone 8	80	0.5 acre Zone 4	Due to existing circumstances, a conservation easement under updated Zone 8 criteria would not be feasible, therefore allocation reverts to Zone 4.
52-4	0.9 acre Zone 8	81	0.9 acre Zone 8	Proposed updates to Zone 8 criteria and management.
57-1	1.2 acres Zone 8	86	1.2 acres Zone 4	Due to existing circumstances, a conservation easement under updated Zone 8 criteria would not be feasible, therefore allocation reverts to Zone 4.
57-2	1.5 acres	88	2.6 acres	Due to existing circumstances, a conservation easement under updated Zone 8 criteria would

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
	Zone 8		Zone 4	not be feasible, therefore allocation reverts to Zone 4.
66-1	0.5 acre Zone 8	100	1.3 acre Zone 4	Due to existing circumstances, a conservation easement under updated Zone 8 criteria would not be feasible, therefore allocation reverts to Zone 4.
69-1	0.2 acre Zone 8	105	0.3 acre Zone 4	Due to existing circumstances, a conservation easement under updated Zone 8 criteria would not be feasible, therefore allocation reverts to Zone 4.
71-1	1.2 acres Zone 8	114	2.4 acres Zone 4	Due to existing circumstances, a conservation easement under updated Zone 8 criteria would not be feasible, therefore allocation reverts to Zone 4.
71-2	0.5 acre Zone 8	113	0.5 acre Zone 4	Proposed updates to Zone 8 criteria and management.
71-3	1.4 acres Zone 8	111	1.4 acres Zone 4	Proposed updates to Zone 8 criteria and management.
71-4	0.5 acre Zone 8	110	0.5 acre Zone 8	Proposed updates to Zone 8 criteria and management.
71-5	0.4 acre Zone 8	109	0.4 acre Zone 8	Proposed updates to Zone 8 criteria and management.
73-1	0.9 acre Zone 8	117 118	0.2 acre Zone 6 1.4 acres Zone 4	Portions of TVA-managed land fronting existing Camp Riva reallocated to Zone 6. For the remainder of parcel, due to existing circumstances, conservation easement and community facilities under updated Zone 8 criteria would not be feasible; therefore, allocation reverts to Zone 4.

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
73-2	0.7 acre Zone 8	116 117	0.5 acre Zone 8 0.8 acre Zone 6	Portions of TVA-managed land fronting existing Camp Riva reallocated to Zone 6 consistent with Developed Recreation allocation. Remainder of parcel will continue to have Zone 8 allocation.
77-1	0.2 acre Zone 8	146	0.5 acre Zone 8	Proposed updates to Zone 8 criteria and management.
77-2	1.1 acre Zone 8	145	1.8 acres Zone 8	Proposed updates to Zone 8 criteria and management.
77-3	0.6 acre Zone 8	144	0.3 acre Zone 4	Due to existing circumstances, conservation easement under updated Zone 8 criteria would not be feasible, therefore allocation reverts to Zone 4. Existing facility would be grandfathered.
81-1	0.8 acre Zone 8	138	1.8 acres Zone 4	Due to existing circumstances, conservation easement under updated Zone 8 criteria would not be feasible, therefore allocation reverts to Zone 4. Existing facility would be grandfathered.
86-1	0.2 acre Zone 8	125	0.8 acre Zone 8	Proposed updates to Zone 8 criteria and management.
86-2	1.1 acres Zone 8	127	2.1 acres Zone 8	Proposed updates to Zone 8 criteria and management.
88-2	0.4 acre Zone 8	135	1.8 acres Zone 4	Proposed updates to Zone 8 criteria and management.

2.4.4 Alternative D – Individual Water-Use Facilities with Restrictions

Under Alternative D, the proposed allocations to Zone 2, Zone 4, Zone 5 and Zone 7 (with Restrictions) are consistent with Alternative B.

The acreages would not change for the Zone 7 parcels, but there would be changes in how the Zone 7 parcels would be managed (see Appendix C for details). Parcel 136 (Zone 6) would allow for developed recreation instead of informal recreation (e.g., a small public park versus a public greenway). The change would allow for additional Zone 6 acreage (9.3 acres) but would decrease Zone 3 land by 9.3 acres.

Approximately 7.6 percent (357.0 acres) would be allocated as Zone 3. This would be slightly less Zone 3 acreage (0.2 percent and 9.3 acres) than Alternative B due to an expansion of Parcel 136 proposed for Zone 6. Approximately 13.9 percent (651.0 acres) is proposed for allocation to Zone 6. This alternative includes more Zone 6 acreage (0.2 percent and 9.3 acres) to account for potential expansion of an existing recreation area. Under Alternative D, there would no longer be a Zone 8 allocation. Instead, those parcels would be reallocated to either Zone 7 (with Restrictions) or Zone 4, depending on the unique circumstances.

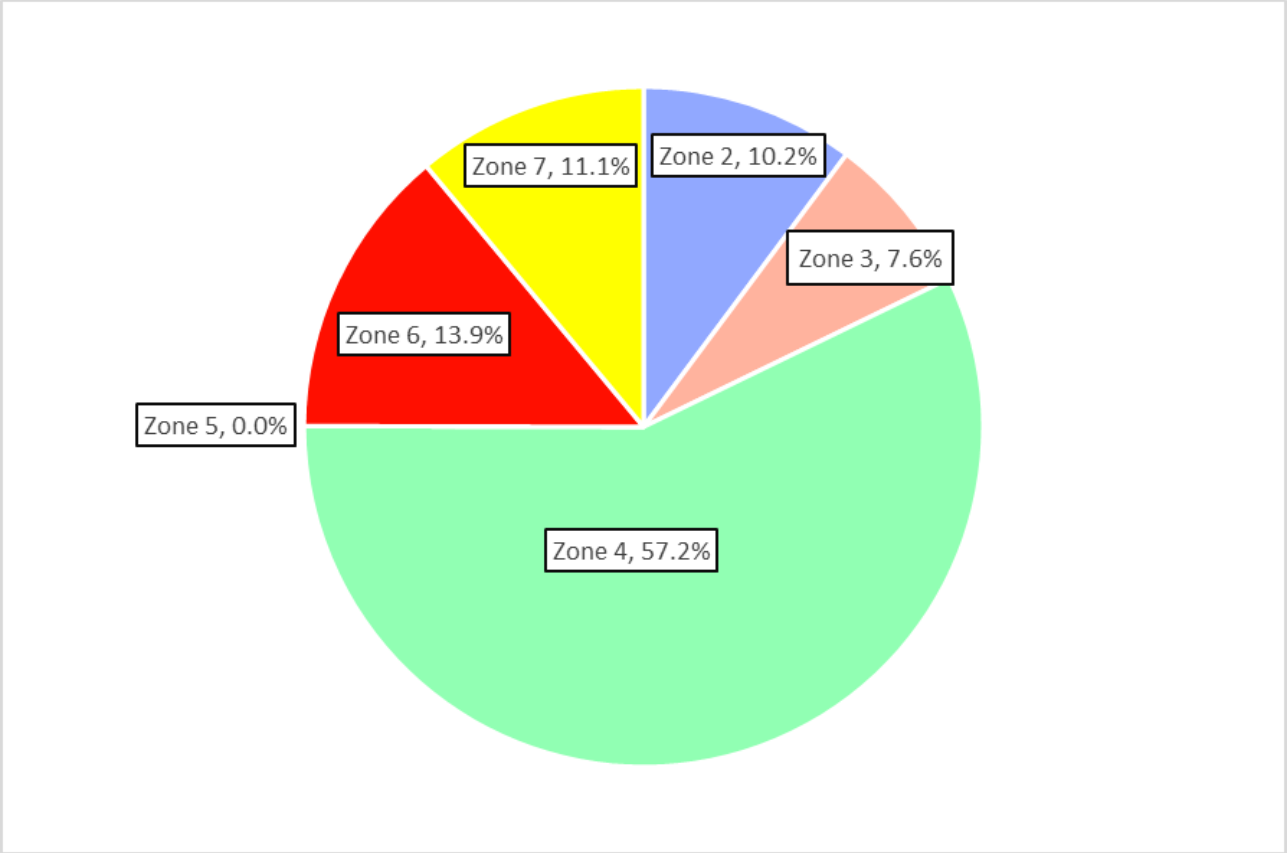

Figure 2-3. Percent of Tims Ford Acreage Allocated by Zone (Alternative D)

A table listing each parcel under Alternative B including parcel number, zone allocation and parcel acreage is included as Appendix D. A comparison of each parcel allocation change for Alternatives A, B, C and D is included as Appendix E.

Table 2.3 Proposed Parcel Allocation Changes Under Alternative D

2000 RLMP Parcel Number	2000 RLMP Acreage & Zone Allocation	Proposed Parcel Number	Proposed Acreage Change & Allocation	Reason for Proposed Change
88	60.4 acres Zone 4	136	14.6 acres Zone 6	Portion of Zone 4 proposed for reallocation to Zone 6 to support the development of expanded public access areas (currently limited public facilities available).

A comparison of each parcel allocation change for Alternatives A, B, C and D is included as Appendix F

2.4.5 Summary of Proposed Allocation Changes

The land use allocations in the draft 2025 RLMP alternatives are summarized in Table 2.4 below.

Table 2.4 Summary of Land Use Allocations for Draft Tims Ford RLMP

Allocation Designation[1]	Alternative A (No Action)		Alternative B (Preferred Alternative)		Alternative C (Modified Zone 8)		Alternative D (Individual w/Restrictions)	
	Number of Parcels	Acres	Number of Parcels	Acres	Number of Parcels	Acres	Number of Parcels	Acres
Zone 2 - Project Operations	1	390.5	20	477.6	20	477.6	20	477.6
Zone 3 - Sensitive Resource Management	8	642.6	5	366.3	5	366.3	5	357.0
Zone 4 - Natural Resource Conservation	40	2,462.8	36	2,681.2	57	2,715.6	36	2,681.2
Zone 5 - Industrial	3	8.7	1	0.2	1	0.2	1	0.2
Zone 6 - Developed Recreation	17	632.1	18	641.7	18	641.7	18	651.0
Zone 7 - Shoreline Access	39	460.9	80	518.5	33	459.0	81	518.5
Zone 8 - Conservation Partnership	50	66.3	0	---	26	25.0	0	---

Further descriptions of changes in the draft 2025 RLMP include the following:

- **Zone 8 Parcels**: TVA would keep the Zone 8 (Conservation Partnership) allocation for some parcels under Alternative C. Alternative C includes reallocating some Zone 8 parcels to Zone 4 (Natural Resource Conservation) if the parcel never met the Zone 8 allocation criteria, updating language regarding conservation easements, and updating the current requirements limiting shoreline development to community facilities. In Alternatives B and D, the Zone 8 allocation would be removed from the 2025 RLMP. Please see Appendix C for updated Zone 8 information and criteria.

- **Updating maps based on the 2010 land swap with the State of Tennessee:** In the 2000 RLMP, both TVA and TDEC lands were planned, since the project was a cooperative project between agencies serving multiple purposes. As those actions associated with the land swap have been completed, only lands owned by TVA would be planned in the proposed draft 2025 RLMP. Additionally, lands below the 895-foot contour would be planned using TVA's seven zone allocation system (with Zone 8 parcels to be determined).
- **Grandfathered Facilities:** In the 2000 RLMP EIS, grandfathered facilities were allowed to remain but could not be expanded. No other TVA reservoirs' grandfathered facilities are managed in this manner. In order to be consistent with the history of the management of these facilities on Tims Ford Reservoir and consistent with similar situations within the Tennessee Valley, TVA proposes to issue a 20-foot wide access license in conjunction with Section 26a permits to existing grandfathered facilities. This will ensure those facilities comply with and are maintained in accordance with TVA policies, guidance, and Section 26a regulations.
- **Reallocation of Parcels to Zone 6 (Developed Recreation)** to support public recreation:
    - TVA proposes to reallocate a 0.1-acre portion of Parcel 59A from Zone 7 to support existing public recreation (entrance to the Taylor Creek Greenway).
    - TVA proposes to reallocate a 0.8-acre portion of Parcel 62 from Zone 3 to support existing backlying public recreation (Estill Springs City Park).
    - TVA proposes to reallocate a 3.1-acre portion of Parcel 75 from Zone 4 to allow for the development of an informal recreation area.
    - TVA proposes to reallocate a 0.1-acre portion of Parcel 84B from Zone 7 and a 0.2-acre portion of Parcel 85 from Zone 4 to support an existing public boat-launching ramp.
    - TVA proposes to reallocate a 5.25-acre portion of Parcel 88 from Zone 4 to allow for the development of informal recreation areas and to support some existing public recreation facilities.
    - TVA proposes to allocate three previously unallocated areas (a total of 3.8 acres), including the land fronting Tims Ford Marina, islands associated with the State Park, and lands adjacent to a portion of Parcel 88 proposed for reallocation to Zone 6.

- **Reallocation of Parcels to Zone 7 (Shoreline Access):**
    - TVA proposes to reallocate a 0.3-acre portion of Parcel 39 from Zone 4, a 0.8-acre portion of Parcel 70 from Zone 3, and a 0.1-acre portion of Parcel 75 from Zone 4 to support an existing, residential development, platted prior to the 2000 RLMP and with a history of shoreline access permitting. This would correct an administrative error in the 2000 RLMP.
    - TVA proposes to reallocate a 0.1-acre portion of Parcel 7A from Zone 5 to support a planned residential development. This would correct an administrative error in the 2000 RLMP.
    - TVA proposes to reallocate a 0.1-acre portion of Parcel 88 from Zone 4, to support an existing residential development, with a previously permitted dock, and immediately adjacent to a Zone 7 parcel (Parcel 89).
- **Industrial:** TVA proposes to reallocate 0.2 acre from Zone 7 to Zone 5 to correct an administrative error in the 2000 RLMP where a commercial water intake was mapped in the wrong location.
- **Roadway and Transmission Line Rights-of-Way:** On parcels where road or transmission rights-of-way (ROWs) occur and are in use, ROWs would be rezoned from various allocations to Zone 2, consistent with TVA's current lands planning practices. This would be considered a minor allocation change affecting approximately 76.4 acres that is administrative in nature.
- **Sensitive Resource Management and Natural Resource Management Lands:**
    - Four parcels (Parcels 15, 41, 43, and 53) would be reallocated from Zone 3 to Zone 4 and merged with adjacent parcels due to the lack of known sensitive resources located on the parcels. This would affect 317.6 acres.
    - A 45.3-acre portion of Parcel 88 and all of Parcel 88b would be changed from Zone 4 to Zone 3 and merged together due to the presence of sensitive resources on the parcels.
    - Two previously unallocated tracts of land (5.4 acres) are proposed for allocation to Zone 3 due to the presence of sensitive resources. These parcels would be merged with adjacent Zone 3 parcels (Parcel 88 and Parcel 63).
    - Two previously unallocated tracts of land (1.9 acres) are proposed for allocation to Zone 4 and these tracts would be merged with adjacent Zone 4 parcels (Parcel 22 and Parcel 24).
    - Parcel 78 (4.0 acres) and Parcel 83 (4.6 acres) are proposed for reallocation from Zone 5 to Zone 4 due to changes in the backlying land use at those locations to residential use and lack of shoreline access land rights for private water-use facilities.
- **Public Works:** A 5.8-acre portion of Parcel 75 associated with an existing public water intake and road ROW is proposed for reallocation from Zone 4 to Zone 2. Additionally, a 2.5 acre-portion of Parcel 83 is proposed for reallocation from Zone 5 to Zone 2 due to an existing building easement and current use of the area by TWRA as an operations base. Both proposed reallocations are consistent with current lands planning practices.

- **Other Tims Ford Reservoir Allocation Changes:** TVA would incorporate allocation changes since the 2000 RLMP was completed. The allocation changes were previously approved by the Board or its delegates into the RLMP. TVA has completed NEPA reviews for all previously approved allocation changes. Descriptions and maps of those existing allocation changes can be viewed at: https://www.tva.com/environment/environmental-stewardship/land-management/reservoir-land-management-plans/tims-ford-reservoir-land-management-plan.

2.5. Comparison of Alternatives

2.5.1 Zone Allocations by Alternative

TVA reservoir lands around Tims Ford Reservoir are managed consistent with the 2000 RLMP (Alternative A – No Action). Under the proposed alternatives, TVA-managed lands around Tims Ford Reservoir would be zoned as summarized below (Alternatives B (Preferred), C and D).

Zone 2 (Project Operations) - Zone 2 encompasses all TVA-managed land currently used for TVA operations and public works projects such as roadways, water lines, and transmission lines. Under all three action alternatives for the draft 2025 RLMP, 10.2 percent (477.6 acres) of TVA-owned land on Tims Ford Reservoir would be allocated to Zone 2. The largest parcel allocated as Zone 2 is Tims Ford Dam Reservation which also contains transmission lines, substations, access roads, and public recreational facilities such as ramps, piers, and picnic areas. Under the 2000 RLMP, most of the public works projects were not allocated for Zone 2, therefore, this allocation has seen the largest increase by percent.

Zone 3 (Sensitive Resource Management) - Zone 3 lands are managed for protection and enhancement of sensitive resources. Sensitive resources, as defined by TVA, include resources protected by state or federal law or executive order and other land features and/or natural resources TVA considers important to the natural environment. Under the three action alternatives, approximately 7.8 percent (366.3 acres) under Alternatives B and C or 7.6 percent (357.0 acres) under Alternative D would be allocated for Zone 3, which is less than under the 2000 RLMP (13.7 percent or 642.6 acres). The reason for this decrease is that sensitive resources were not identified in the review of the parcels previously identified with sensitive resources. Under Alternative D, there is slightly more Zone 3 acreage proposed for reallocation due to an expansion of an area proposed for Zone 6 (Developed Recreation) where it would otherwise be proposed for Zone 3. However, the majority of this Zone 3 acreage proposed for reallocation would be converted to Zone 4 (Natural Resource Conservation) acreage and would still be managed by TVA for the enhancement of natural resources.

Zone 4 (Natural Resource Conservation) - Lands allocated to Zone 4 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 on parcels allocated to Zone 4 include hiking, wildlife observation, fishing, hunting, timber management to promote forest health, and camping on undeveloped sites. Under the action alternatives of the draft 2025 RLMP, the largest percentage of the TVA-managed land would be allocated to Zone 4. Under Alternatives B and D, the amount allocated is 57.2 percent or 2,681.2 acres, and under Alternative C the amount allocated is 58.0 percent or 2,715.6 percent. In addition to

the large amount allocated to Zone 4, TWRA also manages a large amount of land adjacent to TVA (Parcel 48) as part of the Owl Hollow Mill WMA.

Zone 5 (Industrial) – Lands allocated as Zone 5 are managed for economic development including businesses in distribution/processing/assembly and light manufacturing. Under all three action alternatives in the draft 2025 RLMP, only one small parcel, approximately 0.2 acres (less than 1 percent of TVA-managed land) would be allocated to Zone 5 to reflect existing industrial uses.

Zone 6 (Developed Recreation) - Land allocated as Zone 6 is currently used or planned for recreational purposes, such as boat-launching ramps, campgrounds, marinas, or parks. Under the draft RLMP for Alternatives B and C, approximately 13.7 percent (641.7 acres) of TVA-managed land on Tims Ford Reservoir would be allocated to Zone 6. These two alternatives would include three existing recreation areas, not previously allocated for recreational use and one area currently used by the public for informal recreational use that TVA is proposing as a possibility for development by a public entity. Under Alternative D, 13.9 percent (651.0 acres) is proposed for allocation to Zone 6. The difference in this alternative is that one of the existing recreation areas is proposed for expansion based on a previous inquiry. Under all alternatives, the vast majority of the acreage represents tracts of land that are already in use or committed to use as recreational lands.

Zone 7 (Shoreline Access) - Lands allocated to Zone 7 are TVA-owned lands where Section 26a applications and other land use approvals for private water-use facilities are considered. Requests for private water-use facilities are considered on parcels identified in this zone where such use was previously considered, and/or where the backlying landowner possesses deeded rights of access, and where the proposed use would not conflict with the interests of the public. On Tims Ford Reservoir, the history of where TERDA permitted facilities is taken into account as well, but TVA must have documentation that TERDA had a history of permitting in a subdivision (or specific residential area) and that docks were built prior to when TERDA was sunset (in 1995). Under the draft RLMP, approximately 11.1 percent (518.5 acres) for Alternatives B and D of TVA land around Tims Ford Reservoir would be allocated to Zone 7. Under Alternative C, 9.8 percent (459.7 acres) would be allocated to Zone 7.

Zone 8 (Conservation Partnership). Lands allocated to Zone 8 are managed in partnership with backlying owners to create a larger vegetative buffer on private land in exchange for a community facility. The Zone 8 allocation is unique to Tims Ford Reservoir. Under Alternatives B and D, there would no longer be a Zone 8 allocation. Rather those parcels would be reallocated to either a Zone 7 (with an orange line indicating additional restrictions) or a Zone 4, depending on the unique circumstances. Under Alternative C, Zone 8 parcels would be modified in their criteria, but would remain as part of the Tims Ford RLMP. Under Alternative C, approximately 0.5 percent (24.3 acres) of TVA-managed land around Tims Ford Reservoir would be allocated to Zone 8. Under all three action alternatives, parcels reallocated to Zone 7 (with additional restrictions) or those remaining a Zone 8 (Alternative C) would be allowed some development somewhat similar to a Zone 7 residential development. However, each Zone 7 allocation would have management and development restrictions on the TVA lands fronting the residential development. Appendix C includes details of those restrictions.

See Table 2.5 below for a comparison of acreages and percentages of zone allocations by alternative.

2.5.2 Comparison of Environmental Effects by Alternative

Summarized in Table 2.6 below are the potential environmental effects of each alternative considered in this EA. These summaries are derived from the information and analyses provided in Chapter 3 (Affected Environment and Environmental Effects).

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Table 2.5 Comparison of Zone Allocations by Alternative

Zone	Alternative A*		Alternative B			Alternative C			Alternative D		
	Acres	%	Acres	Acreage Change	%	Acres	Acreage Change	%	Acres	Acreage Change	%
2	390.5	8.3	477.6	+87.1	10.2	477.6	+87.1	10.2	477.6	+87.1	10.2
3	642.6	13.7	366.3	-276.3	7.8	366.3	-276.3	7.8	357.0	-285.6	7.6
4	2,462.8	52.6	2,681.2	+218.4	57.2	2,715.6	+252.8	58.0	2,681.2	+218.4	57.2
5	8.7	0.2	0.2	-8.5	0.0	0.2	-8.5	0.0	0.2	-8.5	0.0
6	632.1	13.5	641.7	+9.6	13.7	641.7	+9.6	13.7	651.0	+18.9	13.9
7	460.9	9.8	518.5	+57.6	11.1	459.7	-1.2	9.8	518.5	+57.6	11.1
8[2]	66.3	1.4	0	-66.3	0	24.3	-42.0	0.5	0	-66.3	0
Not Allocated	21.5	0.5	0	-21.5	0	0	-21.5	0	0	-21.5	0

*Includes approved allocation changes since the 2000 RLMP was completed

Table 2.6 Summary and Comparison of Alternatives by Resource Area

Resource Area	Impacts from Alternative A (No Action)	Impacts from Alternative B (Preferred)	Impacts from Alternative C	Impacts from Alternative D
Prime Farmland	No change in current management. Approximately 44.2% of farmland on TVA parcels would be unavailable for agricultural use.	Minor effects, with a slight increase (16.2 acres in total) in lands that would be unavailable for agricultural use compared to Alternative A. There would be an increase in farmland allocated under Zones 3 and	Like Alternative B, approximately 47.2% of farmlands on TVA parcels would be unavailable for agricultural use, which is the same as Alternative B.	Approximately 47.2% of farmlands on TVA parcels would be unavailable for agricultural use, which is the same as Alternative B.

Resource Area	Impacts from Alternative A (No Action)	Impacts from Alternative B (Preferred)	Impacts from Alternative C	Impacts from Alternative D
		4 by 3.1%, with 47.2% of farmland on TVA parcels unavailable.		
Recreation	No change to current management, with 79.7% of TVA-managed lands allocated as Zones 3, 4 or 6, which are allocations most likely to support public recreational opportunities.	Slight decrease in allocations providing recreational opportunities (78.7%), primarily due to allocations that reflect existing infrastructure (ROWs). Generally, minor beneficial impacts on dispersed recreation and moderate beneficial impacts on developed recreation.	Slight increase compared to Alternative B, with 79.4% of lands with allocations most likely to support public recreational opportunities with similar impacts as Alternative B.	Similar effects as Alternative B, with 78.7% of lands with allocations most likely to support public recreational opportunities with the same impacts as Alternative B.
Terrestrial & Aquatic Ecology	No change to current management, with 66.2% of TVA-managed lands allocated as Zones 3 and 4, which are allocations that best support terrestrial and aquatic ecology.	Negligible effects compared to Alternative A with 59.7 fewer acres of TVA-managed lands allocated as Zones 3 and 4, Protection of species would continue and site-specific NEPA reviews would ensure impacts addressed.	Similar effects as Alternative B, with 34.7 more acres allocated as Zones 3 and 4, (compared to Alternative B). Negligible effects compared to Alternative A.	Similar effects as Alternative B, with 44.0 fewer acres allocated as Zones 3 and 4, (compared to Alternative B). Negligible effects compared to Alternative A.
Threatened & Endangered Species	No change to current management, with no effects to federally and state-listed species.	State-listed plants and two bat species are known from reservoir lands and structures; The small decrease (57.9 acres) in land allocated to Zones 3 and 4 would result in minor potential impacts to plants and animals. Proposed change from Zone 3 to Zone 2 for	Similar effects as Alternative B, except there would be a small increase (34.7 acres) in land allocated to Zones 3 and 4. Proposed change from Zone 3 to Zone 2 for existing ROWs is not expected to have adverse effects to species because the land use/management is not	Similar effects as Alternative B including a small decrease (44 acres) in land allocated to Zones 3 and 4. Proposed change from Zone 3 to Zone 2 for existing ROWs is not expected to have adverse effects to species because the land use/management is not changing. Protection of

Resource Area	Impacts from Alternative A (No Action)	Impacts from Alternative B (Preferred)	Impacts from Alternative C	Impacts from Alternative D
		existing ROWs is not expected to have adverse effects to species because the land use/management is not changing. Protection of species would continue and site-specific NEPA reviews would ensure impacts addressed.	changing. Protection of species would continue and site-specific NEPA reviews would ensure impacts are addressed.	species would continue and site-specific NEPA reviews would ensure impacts are addressed.
Water Quality	Continued management, with impacts the same as those discussed in the 2000 EIS. The potential for impacts are associated with proposed future uses and activities.	Negligible change in the potential for impacts compared to Alternative A. Changes from protective zones to development zones increase potential impacts, although many proposed changes reflect existing ROWs.	Similar to Alternative B with fewer changes from protective zones to development zones decreasing potential impacts. Many proposed changes reflect existing land uses and ROWs.	Similar to Alternative B with fewer changes from protective zones to development zones decreasing potential impacts. Many proposed changes reflect existing land uses and ROWs.
Wetlands	No change in management would provide a continued level of wetland conservation with 66% of TVA-managed lands allocated to zones (Zones 3 and 4) with the least potential for development.	Similar to Alternative A, with slightly fewer lands (65%) allocated to Zones 3 or 4. Changes from protective zones (Zones 3 and 4) to development zones (Zones 2, 6, and 7) increase potential impacts. However, impacts would be minor as the allocation changes reflect existing land uses including road and transmission line ROWs. Future site-specific	Similar to Alternative B, with slightly more lands (65.7%) allocated to Zones 3 or 4. Changes from protective zones (Zones 3 and 4) to development zones (Zones 2, 6, and 7) increase potential impacts. However impacts would be minor as the allocation changes reflect existing land uses including road and transmission line ROWs. Future site-specific	Similar to Alternative B, with slightly less lands (64.8%) allocated to Zones 3 or 4. Changes from protective zones (Zones 3 and 4) to development zones (Zones 2, 6, and 7) increase potential impacts. The proposed allocation changes correct mapping errors, align with existing land use, or reflect road and transmission line ROWs. Future site-specific

Resource Area	Impacts from Alternative A (No Action)	Impacts from Alternative B (Preferred)	Impacts from Alternative C	Impacts from Alternative D
		reviews would address potential future impacts.	reviews would address potential future impacts.	reviews would address potential future impacts.
Floodplains	No change to current management.	Overall impacts to floodplains would be minor and insignificant relative to floodplains and their natural and beneficial values.	Impacts to floodplains minor and insignificant relative to floodplains and their natural and beneficial values.	Impacts to floodplains minor and insignificant relative to floodplains and their natural and beneficial values.
Air Quality	No change in management. Approximately 23% of lands would continue to be allocated to zones with greatest potential for adverse air impacts (Zones 2, 5 and 6).	Similar effects as under Alternative A. Approximately 23.8% of lands would be allocated to zones with greatest potential for air impacts (Zones 2, 5 and 6).	Similar effects as under Alternatives A and B. Approximately 23.8% of lands would be allocated to zones with greatest potential for air impacts (Zones 2, 5 and 6).	Similar effects as under Alternatives A, B, and C. Approximately 24% of lands would be allocated to zones with greatest potential for air impacts (Zones 2, 5 and 6).
Cultural & Historic Resources	No change to current management, with 66% of TVA-managed lands allocated to zones (Zones 3 and 4) with the least potential for development.	Similar to Alternative A, with slightly fewer lands (65%) allocated to Zones 3 or 4. Protection of cultural resources would continue and site-specific NEPA reviews would address potential impacts.	Similar to Alternative B, with slightly more lands (65.7%) allocated to Zones 3 or 4. Future site-specific reviews would address potential future impacts. Protection of cultural resources would continue.	Similar to Alternative B, with slightly less lands (64.8%) allocated to Zones 3 or 4. Future site-specific reviews would address potential future impacts. Protection of cultural resources would continue.
Natural Areas	No change to current management.	Minor effects as most proposed allocation changes would reflect existing land uses.	Similar to Alternative B. Most proposed allocation changes would reflect existing land uses.	Similar to Alternative B. Most proposed allocation changes would reflect existing land uses.
Visual Resources	No change to current management.	Similar to Alternative A. Minor localized effects where new allocations could allow for development.	Similar to Alternative B, with about the same parcels that would be identified for potential development.	Similar to Alternative B, except one small parcel would be identified for potential development.

Resource Area	Impacts from Alternative A (No Action)	Impacts from Alternative B (Preferred)	Impacts from Alternative C	Impacts from Alternative D
Socioeconomics	No change in management. Approximately 24.9% of lands would continue to be allocated to Zones 5 6, 7 and 8.	No measurable effects compared to Alternative A. Approximately 24.7% of lands would be allocated to zones (Zones 5, 6 and 7) with greatest potential for development.	No measurable effects compared to Alternative B. Approximately 24.0% of lands would be allocated to zones (Zones 5, 6, 7 and 8) with greatest development potential.	Minor beneficial effects compared to Alternative B. Approximately 24.9% of lands would be allocated to zones (Zones 5, 6 and 7) with greatest potential for development.

2.5.3 Consistency with the Comprehensive Valleywide Land Plan

The revision of an RLMP must be consistent with TVA's CVLP target allocation ranges. Table 2.6 below shows the CVLP target ranges, the current allocation percentages for the 293,000 acres of TVA-managed public land, and the adjusted allocation percentages with the proposed draft 2025 RLMP revision. The proposed allocation changes would result in minor changes to the allocation percentages for the 293,000 acres of TVA-managed public land.

Table 2.6 CVLP Allocation Range Comparisons for Draft Tims Ford RLMP[1]

Allocation Designation		Current Valleywide Allocation (Percent)	2017 CVLP Range (Percent)	Alt B (Percent)	Alt C (Percent)	Alt D (Percent)
Zone 2	Project Operations	8.7	7 to 10	8.7	8.7	8.7
Zone 3	Sensitive Resource Management	16.1	14 to 18	16.0	16.0	16.0
Zone 4	Natural Resource Conservation	60.0	56 to 63	60.0	60.0	60.0
Zone 5	Industrial	1.6	1 to 3	1.6	1.6	1.6
Zone 6	Developed Recreation	8.5	8 to 10	8.6	8.6	8.6
Zone 7	Shoreline Access	5.2	5 to 6	5.2	5.2	5.2

[1] Zone 8s are currently unaccounted for in the CVLP but would not have a measurable impact.

The proposed changes to the 2000 RLMP would result in minor fluctuations to the current valley wide allocation percentages, but the allocations would remain within the 2017 Board-approved CVLP allocation ranges. In conclusion, the analysis conducted during the development of the draft RLMP supports the CVLP.

2.6. Identification of Mitigation Measures (Routine)

TVA's analysis of the alternatives includes routine mitigation that would reduce or avoid adverse effects. Mitigation measures are actions that could be taken to avoid, minimize, reduce or compensate for adverse impacts to the environment. In considering requests of TVA-managed lands allocated under the RLMP, TVA would implement the following routine commitments and routine mitigation measures. TVA has not identified any non-routine mitigation measures for this draft EA.

- Prior to approving any use of land on the reservoir, TVA would conduct an appropriate level of site-specific environmental review to determine the potential environmental effects of the proposed use.
- As necessary, based on the findings of any site-specific environmental review, TVA may require the implementation of appropriate mitigative measures, including best management practices (BMPs; e.g. Section 26a General and Standard Conditions/BMPs) as a condition of approval for land use on TVA-managed land.

- In the event that a land use request involves industrial development, the subject environmental review will determine and document the extent of expected air quality impacts.
- Any future development of lands potentially supporting use by sensitive species will be coordinated with both state and federal agencies, as appropriate.
- Consistent with EO 13751 (Safeguarding the Nation from the Impacts of Invasive Species), disturbed areas would be revegetated with native or non-native, non-invasive plant species to avoid the introduction or spread of invasive species.
- TVA will comply with the Programmatic Agreement (PA) executed in January 2020 in consultation with the Advisory Council on Historic Preservation, seven SHPOs (including the Tennessee SHPO), and 21 federally recognized Indian Tribes, to address a suite of activities. The PA addresses TVA's compliance with Section 106 of the National Historical Preservation Act when implementing the various land plan activities.
- TVA will comply with the 2018 Programmatic Bat Consultation with the seven USFWS state offices for federally listed bats and 96 routine activities.

2.7. Preferred Alternative

TVA prefers Alternative B as its draft 2025 RLMP. The draft 2025 RLMP alternative incorporates numerous updates to the 2000 RLMP to reflect actual uses of parcels as well as the presence of known or potential sensitive resources, and/or existing land rights or restrictions for parcels. In addition, this alternative allows TVA to respond to several proposals provided to TVA and supported by the local stakeholders.

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CHAPTER 3 – AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS

This chapter contains a description of the current conditions of various resources in the area of Tims Ford Reservoir that could be affected by implementation of the proposed RLMP. Potential environmental effects of Alternatives A, B, C and D on each of the identified resources are also analyzed in this chapter. TVA will analyze foreseeable impacts associated with each plan alternative. Direct impacts are effects caused by a proposed action that occur at the same time and place (on site), whereas indirect impacts are effects caused by a proposed action but are removed in time or space (off site).

As discussed in Chapter 2 under Alternative A, TVA would not make any change to the Tims Ford RLMP completed in 2000, and land management and future land use decisions would continue in accordance with the existing plan. Under Alternatives B, C and D, TVA would implement an RLMP that would be used to manage existing land uses and guide future land use decisions. Alternatives B and D would reallocate a portion of TVA-managed lands on Tims Ford Reservoir into one of the seven land use zones based on current land usage, existing land rights (i.e., committed lands), public needs, the presence of known sensitive resources and TVA policies as described above in the pre-allocation process. Alternative C would retain the Zone 8 (Conservation Partnership) allocation, but with revised qualification criteria. Land allocations under Alternatives B, C and D were primarily proposed to reflect existing conditions and suitable uses of land, and as such the difference in land allocations between the three alternatives are minor. Some allocation changes would result in no change in management (e.g., reallocating parcels with existing roadways to Zone 2 (Project Operations), and no environmental effects would occur.

The analyses of potential environmental consequences in this chapter were based upon the assumption that any activity allowed under a particular zone would occur at the greatest allowable intensity on the entire extent of the parcel. For example, on a 0.3-acre parcel allocated to Zone 5 (Industrial), it was assumed the entire parcel would be cleared of vegetation and developed to support an industrial facility. Activities on Zone 2 (Project Operations), Zone 6 (Developed Recreation), and Zone 7 (Shoreline Access) may include development, construction, and landscaping, but some areas of a parcel may be left in a relatively natural state. Therefore, the analysis was based upon the assumption that the potential for altering the existing conditions of a parcel is greatest under Zone 5 (Industrial), moderate under Zone 2, Zone 6, and Zone 7, minor under Zone 4 (Natural Resource Conservation), and the least under Zone 3 (Sensitive Resource Management). Future projects, planned in detail, will be evaluated to determine site specific environmental impacts, and potential impacts to sensitive resources would be identified and avoided or minimized as appropriate and in a manner consistent with applicable laws and regulations.

None of the alternatives under consideration are expected to be controversial, involve unique or unknown risks, or violate federal, state, or local laws.

3.1. Prime Farmlands

3.1.1 Affected Environment

The conversion of farmland to industrial and other nonagricultural uses essentially precludes farming the land for the foreseeable future. With enough conversion of productive farmland, the economic base of rural communities can be adversely affected. Continued nationwide conversion of such land to nonagricultural uses has the potential of ultimately threatening the nation's agricultural capability--the ability to provide its citizens with basic requirements of food and fiber. Recognizing these long-term trends, the Federal Farmland Protection Policy Act was signed into law in 1981 (United States Code (USC) 4201 at seq). Implementing regulations were first promulgated in 1984 and then amended in 1994. The regulations codified at Section (§) 7 Code of Federal Regulations (CFR) Part 658 set forth the criteria developed by the Secretary of Agriculture for identifying effects of federal programs on the conversion of farmland to non-agricultural uses.

Of the several classes of farmland covered by the law (prime farmland, unique farmland, and farmland of statewide or local importance), prime farmland is the most important and is the primary type that is considered on the lands being evaluated in this draft EA. Prime farmland, as defined by the U.S. Department of Agriculture (USDA), is land that has the best combination of physical and chemical characteristics for the production of food, feed, forage, fiber, and oil seed crops. In addition, prime farmland could be available for use as pasture, range land, forest land, or other land, but cannot be urban or build-up areas. It has soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed according to acceptable farming methods. Prime farmland soils occur on nearly level to gently sloping land (usually less than 6 percent slope) along terraces; in depressions; narrow strips along drainage ways and streams; and on bottomland of creeks and rivers.

The temperate and humid climate in Franklin and Moore counties provides a long growing season and sufficient moisture to nearly all the common field crops. There is no distinct dry season, and crops such as fall-sown small grains and crimson clover seldom suffer from winter kill. The principal crops grown are corn, wheat, soybeans, crimson clover, lespedeza, and alfalfa.

On Tims Ford Reservoir, there are approximately 520 acres (11 percent) of prime farmland on TVA-managed lands. These prime farmlands are within 21 separate soil map units. These prime farmland soils are of the Baxter, Cumberland Etowah mixtures, Decatur, Dewey, Dickson, Emory, Fullerton, Greendale, Hermitage, Holston, Humphreys, Huntington, and Lindside soil series. The most frequently occurring classification is the undulating phase of the Baxter series.

The amount of prime farmland that could be impacted by land use allocations was determined by measuring acreage of the various soils within the prime farmland category. The soils database is available from the TVA Geographic Information Services, Norris, Tennessee, and from the published U.S. Department of Agriculture-Natural Resources Conservation Service (NRCS) (formerly Soil Conservation Service) Soil Survey Reports of Franklin County (1958) and Moore County (1981).

3.1.2 Environmental Effects

As described below, because TVA is considering changes to only approximately 11 percent of public lands managed on Tims Ford Reservoir, there would be minor differences between the potential effects on prime farmland across the alternatives. For instance, the percentage of prime farmland across the four alternatives that would be allocated under Zones 3 and 4 (in which agriculture use may occur) would differ by no more than 3.1 percent. See Table 3.1 below.

Table 3.1. Percent of Prime Farmland Allocated by Alternative

	Alternative A		Alternative B		Alternative C		Alternative D	
Zone	Prime Farmland Acres	% of Prime Farmland	Prime Farmland Acres	% of Prime Farmland	Prime Farmland Acres	% of Prime Farmland	Prime Farmland Acres	% of Prime Farmland
2	0	0%	16.6	3.1%	16.6	3.1%	16.6	3.1%
3	109.0	20.9%	36.0	6.9%	36.0	6.9%	36.0	6.9%
4	182.0	35.0%	239.0	45.9%	239.0	45.9%	239.0	45.9%
5	13.0	2.5%	13.0	2.5%	13.0	2.5%	13.0	2.5%
6	146.0	28.1%	146.0	28.1%	146.0	28.1%	146.0	28.1%
7	71.0	13.6%	70.6	13.5%	70.6	13.5%	70.6	13.5%

3.1.2.1 Alternative A - No Action Alternative

As shown in Table 3.1, 44.2 percent (230.0 acres) of the total prime farmland soils on TVA-managed lands are unavailable for agricultural use under Alternative A (those classified as Zone 2, Zone 5, Zone 6 and Zone 7). This alternative would result in no change to the presently minor amount of prime farmland unavailable within Franklin and Moore counties or to trends in farmland conversion occurring in the area.

3.1.2.2 Alternative B - Proposed RLMP Alternative (Preferred)

As shown in Table 3.1, 47.2 percent (246.2 acres) of the total prime farmland soils on TVA-managed lands would be unavailable for agricultural use (those classified as Project Operations, Industrial, Developed Recreation, and Shoreline Access). This represents a slight, insignificant increase in the amount of prime farmland that would be available in Franklin and Moore counties when compared to Alternative A. The increase in prime farmlands allocated to Zone 2 can be attributed to existing roadway and transmission line infrastructure proposed as Zone 2. Prime farmland allocated to Zone 5 and Zone 6 would not change and Zone 7 would slightly decrease. Compared to Alternative A, the total allocation of prime farmlands under Zones 3 and 4 would increase by 3.1 percent. Permissible private water use-facilities developed in Zone 7 parcels would not affect the suitability of those parcels as prime farmland, although the parcel would not be used for agriculture.

3.1.2.3 Alternative C - Modified Zone 8 (Conservation Partnership)

As shown in Table 3.1, similar to Alternative B, 47.2 percent (246.2 acres) of the total prime farmland soils on TVA-managed lands would be unavailable for agricultural use under

Alternative C. Because only minor differences between Alternatives B and C are proposed, the effects under this alternative would be similar to those under Alternative B. The total allocation of prime farmlands under Zones 3 and 4 under Alternative C would be the same as Alternative B.

3.1.2.4 Alternative D - Individual Water-Use Facilities with Restrictions

As shown in Table 3.1, similar to Alternative B, 47.2 percent (246.2 acres) of the total prime farmland soils on TVA-managed lands would be unavailable for agricultural use under Alternative C. Because only minor differences between Alternatives B and C are proposed, the effects under this alternative would be similar to those under Alternative B. The total allocation of prime farmlands under Zones 3 and 4 under Alternative C would be the same as Alternative B.

Please note that prior to approving any specific activities on Tims Ford Reservoir TVA-managed parcels, TVA would conduct a site-specific environmental review to determine the potential effects of the proposed use(s) to address potential effects, as appropriate.

3.2. Recreation

3.2.1 Affected Environment

Tims Ford Reservoir waterways and reservoir property are popular for recreation use including boating, swimming, fishing, camping, nature observation, and hiking. Tims Ford Reservoir offers a range of public and commercial recreation amenities including boat-launching ramps, picnic and swimming facilities, informal and full-service campgrounds, marinas with restaurants and fuel services, and nature trails. Some developed recreation improvements have occurred since publication of the 2000 EIS including additional picnicking and swimming areas, improvement and expansion of campgrounds, new marinas, and parks. Table 3.2 includes developed recreation areas around Tims Ford Reservoir.

Table 3-2. Developed Recreation Areas on Tims Ford Reservoir

Campgrounds	Operation Type	Parcel Location
Tims Ford State Park (TFSP) - Main	Public	4
TFSP – Turkey Creek	Public	39
Winchester Parks & Recreation Campground	Public	122
Twin Creeks RV Park	Commercial	141
TFSP – Fairview/Devils Step	Public	150
Marinas	**Operation Type**	**Parcel Location**
TFSP - Lakeview Marina	Public	4
Tims Ford Marina and Resort	Commercial	18
Holiday Landing Marina	Commercial	45
Twin Creeks Marina	Commercial	141
Ramps	**Operation Type**	**Parcel Location**
Tims Ford Dam Reservation	Public	1
TFSP -Anderton Branch	Public	4
TFSP – Lakeview	Public	4
TFSP - Lost Creek	Public	15
TFSP - Neal Bridge Public Use Area	Public	33
TFSP-Turkey Creek	Public	39
TFSP - Pleasant Grove Road	Public	54
TFSP - Rock Creek Public Use Area	Public	83
Estill Springs City Park	Public	95
Winchester City Park	Public	122
Sharp Springs	Public	130
Dry Creek	Public	141
TFSP – Fairview/Devils Step	Public	150
Parks/Other	**Operation Type**	**Parcel Location**
Tims Ford State Park	Public	4
Taylor Creek Greenway	Public	92
Estill Springs City Park	Public	95
Camp Riva	Commercial	117
Winchester City Park	Public	122
Oak Street Park	Public	136
Dry Creek Day Use Area	Public	142

3.2.2 Environmental Effects

3.2.2.1 Alternative A – No Action Alternative

Under Alternative A, TVA would continue to manage parcels on Tims Ford Reservoir according to the 2000 RLMP, with more than 79.7 percent of lands allocated as Zone 3 (Sensitive Resource Management), Zone 4 (Natural Resource Conservation), and Zone 6 (Developed Recreation); the zones most likely to provide recreational opportunities. Other undeveloped lands managed by TVA that are allocated for other uses would continue to provide dispersed recreational opportunities.

3.2.2.2 Alternative B - Proposed RLMP Alternative (Preferred)

Under this alternative, selected parcels would be reallocated to align with land use changes that have occurred since the 2000 RLMP was completed as well as new prospects for developed and dispersed recreation opportunities. This alternative provides additional Zone 4 acreage for dispersed recreation use. Alternative B also includes changes to Zone 6 for three existing recreation areas not previously allocated for recreational use, and one area currently used by the public for informal recreational use that TVA is proposing as a possibility for development by a public entity.

Allocation changes to Zone 6 to support public recreation include reallocating a 0.1-acre portion of Parcel 59A from Zone 7 (Shoreline Access) to support existing public recreation (entrance to the Taylor Creek Greenway). Under this alternative, TVA proposes to reallocate a 0.8-acre portion of Parcel 62 from Zone 3 to Zone 6 to support existing backlying public recreation (Estill Springs City Park). TVA also proposes to reallocate a 3.1-acre portion of Parcel 75 from Zone 4 to Zone 6 to allow for the potential development of an informal recreation area, and to reallocate a 0.1-acre portion of Parcel 84B from Zone 7, and a 0.2-acre portion of Parcel 85 from Zone 4 to support an existing public boat-launching ramp. Under Alternative B, a 15.1-acre portion of Parcel 88 is proposed to change from Zone 4 to allow for the development of informal recreation areas and to support some existing public recreation facilities.

Overall, this alternative maintains a reasonable balance between meeting needs for dispersed and developed recreation. Parcels allocated to Zone 4 and Zone 3 can typically be used for dispersed recreation activities. Under Alternative B, the acreage allocated to Zone 3 and Zone 4 would total 3,047.8 acres compared to 3,105.4 acres under Alternative A. This small reduction should have no impact on dispersed recreation opportunities. Lands allocated to Zone 6 would increase from 632.1 acres under Alternative A to 641.7 acres under Alternative B. This increase would reflect current conditions and stakeholder input and would result in potential minor beneficial impacts on developed recreation.

Overall, this alternative meets present and long term (next 10 to 20 years) dispersed and developed recreational needs and represents minor recreation benefits compared to Alternative A (No Action Alternative).

3.2.2.3 Alternative C - Modified Zone 8 (Conservation Partnership)

In comparison to Alternative B, implementation of Alternative C would result in a relatively small increase in lands allocated to Zone 4 and no change in parcels allocated to Zone 3

and Zone 6. Lands allocated to Zone 4 would increase from 2,681.2 acres to 2,715.6 acres, an increase of 34.4 acres. The small increase in land allocated to Zone 4 would result in minor benefits to dispersed recreation and would result in minor beneficial impacts on dispersed recreation opportunities.

3.2.2.4 Alternative D - Individual Water-Use Facilities with Restrictions

In comparison to Alternative B, implementation of Alternative D would result in a small increase (13.9 acres) in lands allocated to Zone 6 and no change in parcels allocated to Zone 4. There would be slightly less Zone 3 acreage (0.2 percent and 9.3 acres) than Alternative B due to an expansion of Parcel 136 proposed for Zone 6. The small increase in land allocated to Zone 6 would result in minor benefits to developed recreation and would result in minor beneficial impacts on developed recreation opportunities.

Prior to approving any specific activities on Tims Ford Reservoir TVA-managed parcels, TVA would conduct a site-specific environmental review to determine the potential effects of the proposed use(s), as appropriate.

3.3. Terrestrial Ecology

3.3.1 Affected Environment

Vegetation

The land associated with the Tims Ford Reservoir occurs in the Highland Rim and Nashville Basin sections of the Interior Low Plateau Province (Griffith et al. 1998). Within this area, the landscape typically contains forests comprised of oaks, hickories, maples, and elms. Species composition varies greatly because of differences in relief, soil fertility, moisture, and history of human disturbance. Today, substantial portions of the landscape have been converted to agricultural, commercial, or residential land use. In general, Tims Ford Reservoir lands are characterized by steep forested slopes near the water (riparian zone) with managed open lands and residential development occurring on the flatter ridgetops. Rock outcrops are common on the steepest shoreline areas. Approximately 90 percent of the shoreline on Tims Ford Reservoir is forested.

The 2000 EIS and current aerial photography indicate that a variety of land-use patterns occur around the shoreline including public and private residential developments, developed recreational sites, one state park, unmanaged forest land, and managed agricultural land. Narrow bands of hardwoods occur within drainages, in small woodlots, and along fence rows, but no large contiguous forested tracts occur in proximity to the reservoir.

A wide variety of plant communities occur on parcels associated with Tims Ford Reservoir lands. Deciduous, evergreen, and mixed evergreen deciduous forest occurs throughout the study area. These forests are comprised of a mixture of forest types interspersed with managed open lands. Forested lands are dominated by hardwood types including upland hardwoods, upland hardwoods mixed with eastern red cedar, and bottomland hardwoods. The remaining forested lands are dominated by pure stands of eastern red cedar. Forest stands also occur across a wide range of landscape positions. Ridgetop and upper slope forests are populated by species indicative of drier habitats while forest stands near the

reservoir or otherwise situated in wetlands are populated by species found in wet areas. Mixed forest areas on Tims Ford Reservoir are comprised of habitats that are common and well represented throughout the region.

Bottomland hardwoods and wetlands are both uncommon on Tims Ford Reservoir, occurring primarily within Parcel 97 (allocated as Zone 3 – Sensitive Resource Management). This parcel has been identified as one of the most ecologically significant areas on the reservoir. Many of the steep rocky shoreline areas are dominated by alder, mountain laurel, ninebark and sweet William itea.

Most of the herbaceous vegetation occurring in the study area has been altered in the past, resulting in the introduction and spread of invasive non-native plants and possesses little conservation value. Areas in this category include frequently mowed lawns associated with the Tims Ford Dam reservation, narrow and fragmented marginal strips adjoining residential developments and the reservoir, roadway and transmission line ROWs, and areas managed for agriculture or wildlife. These habitat types are often dominated by nonnative plants. Emergent wetlands within the study area likely support a greater diversity of plant species than other types of common herbaceous vegetation.

EO 13112 (Invasive Species) directed federal agencies to prevent the introduction of invasive species (both plants and animals), control their populations, restore invaded ecosystems and take other related actions. The 2016 EO 13751 (Safeguarding the Nation from the Impacts of Invasive Species) amends EO 13112 and directs actions by federal agencies to continue coordinated federal prevention and control efforts related to invasive species. This order incorporates considerations of human and environmental health, climate change, technological innovation, and other emerging priorities into federal efforts to address invasive species.

Some invasive plants have been introduced accidentally, but most were brought here as ornamentals or for livestock forage. Because these robust plants arrived without their natural predators (insects and diseases) their populations spread quickly across the landscape displacing native species and degrading ecological communities and ecosystem processes (Miller 2010). According to Morse et al. (2004), invasive non-native species are the second leading threat to imperiled native species.

No federal-noxious weeds are known from these parcels, but many non-native invasive plant species occur on Tims Ford Reservoir lands including, Chinese privet, Japanese honeysuckle, Japanese stilt grass, mimosa, multiflora rose, sericea lespedeza and tree-of-heaven. All of these species occur widely across the regional landscape and have the potential to impact native plant communities because of their potential to spread rapidly and displace native vegetation. All are considered a threat in Tennessee (Tennessee Invasive Plant Council Plant Council 2025).

Wildlife

Habitat across the Tims Ford Reservoir lands vary from mowed lawns to herbaceous and shrubby ROWs to mixed forests to riparian habitat. Terrestrial animal species and their habitats known from Tims Ford Reservoir lands are incorporated by reference from the 2000 EIS (TVA 2000a, Appendix H). The diversity of ecological communities and

topography attributes to a diversity of plant and animal life on TVA-managed Tims Ford Reservoir lands.

Birds commonly found in the Tims Ford Reservoir area throughout the year include the brown thrasher, Canada goose, common loon, eastern bluebird, eastern wild turkey, mallard, northern cardinal, northern mockingbird, song sparrow and various woodpeckers. Neotropical migrant birds include indigo bunting, red-eyed vireo, yellow-billed cuckoo and yellow-throated warbler (National Geographic 2002).

Mammals that may be found in the Tims Ford Reservoir area include common mole, common raccoon, eastern cottontail rabbit, gray fox, gray squirrel, groundhog, Virginia opossum, white-footed mouse, white-tailed deer and woodchuck (Whitaker 1996). Eastern box turtles, five-lined skink, and gray ratsnake are common reptile species utilizing these habitats (Powell et al. 2016).

Review of the USFWS Information for Planning and Consultation (IPaC) website in June 2025 (USFWS 2025) resulted in the identification of 15 migratory birds of conservation concern that may occur in the study area including bald eagle, black-billed cuckoo, bobolink, brown-headed nuthatch, cerulean warbler, chimney swift, eastern whip-poor-will, field sparrow, grasshopper sparrow, Kentucky warbler, least tern, lesser yellowlegs, prairie warbler, prothonotary warbler, red-headed woodpecker, rusty blackbird, and wood thrush (Appendix G). Suitable habitat for all of these species exists on one or several TVA parcels. See Section 3.5 Threatened and Endangered Species for a discussion of habitat requirements and potential impacts to bald eagle.

A search of the TVA Regional Natural Heritage database in May 2025 indicated that five caves are located within 3 miles of Tims Ford Reservoir, and three caves are adjacent to TVA parcels. Waterfowl management areas found on and around Tims Ford Reservoir are incorporated by reference from the 2000 RLMP (TVA 2000a, Appendix H).

3.3.2 Environmental Effects

3.3.2.1 Alternative A – No Action Alternative

Vegetation

Adoption of the No Action Alternative would result in no appreciable changes to plant communities on Tims Ford Reservoir lands compared to the current state. All parcels would continue to be managed according to their current allocation. Any land use request would be subject to a site-specific NEPA review, which would identify unique or important plant habitats potentially present on a site. All natural plant habitats within the study area, including extensive stands of common forest types and relatively rare natural grasslands, would continue to change over time. However, any shift in plant species composition would be related to natural ecological processes and not adoption of the No Action Alternative.

Wildlife

Under the No Action Alternative, all parcels would continue to be managed under the 2000 RLMP. TVA would continue to manage these parcels consistent with allocations in the 2000 RLMP. Current communities of terrestrial animals and their habitats would either not be

affected under the No Action Alternative or, should parcels be proposed for use, would be addressed in a separate, site-specific NEPA review.

3.3.2.2 Alternative B - Proposed RLMP Alternative (Preferred)

Vegetation

Under Alternative B, the acreage allocated to Zones 3 and 4 (Sensitive Resource Management and Natural Resource Conservation) total 3,047.8 acres compared to 3,105.4 acres under Alternative A. This small reduction should have no impact on vegetation or wildlife. Nearly all plant community types found across Tims Ford Reservoir lands are common and well represented throughout the region. Regardless of the quality of the forest stand, there are generally many thousands of acres of similar habitat in the region. If the parcel allocations for lands allocated as Zone 2, Zone 5, Zone 6 or Zone 7 (Project Operations, Industrial, Developed Recreation or Shoreline Access) proposed under Alternative B result in development that requires removal of some forested habitat, large tracts of similar habitat would still exist on reservoir lands and elsewhere in the region.

Wildlife

Under Alternative B, wildlife habitats (including caves) would mostly continue to be allocated as either Zone 3 or Zone 4 where habitats typically remain unchanged. Any potential impacts to wildlife on all parcels would have separate environmental reviews to assess specific impacts of any proposed actions. Appropriate avoidance and minimization measures would be put in place for proposed land uses including actions that fall within 660 feet of osprey nests or wading bird colonies. Overall proposed zone allocations under Alternative B would not be significantly different when compared to Alternative A, the No Action Alternative.

Adoption of Alternative B would not result in significant impacts to the terrestrial ecology of the region. Any land use request would be subject to a site-specific NEPA review, which would identify unique or important resources potentially present on that site.

3.3.2.3 Alternative C - Modified Zone 8 (Conservation Partnership)

Vegetation

Adoption of Alternative C would have comparable impacts to those described for Alternative B. Under Alternative C, approximately 58.0 percent would be allocated as Zone 4. This would be more (0.8 percent) than Alternative B because more Zone 8 (Conservation Partnership) parcels would be reallocated to Zone 4 than under Alternatives B and D. Approximately 9.8 percent would be allocated as Zone 7 (with Restrictions), and this would be 1.3 percent less than Alternative B. Approximately 0.5 percent would be allocated to Zone 8.

Wildlife

Impacts to terrestrial animals under Alternative C would be substantially the same as Alternative B except that fewer parcels would be identified for potential new development under Alternative B. Impacts to terrestrial animal species would be slightly less under Alternative C due to Parcel 3 remaining in the Zone 4 allocation rather than being reallocated for another use. However, overall proposed zone allocations under Alternative

C would not be significantly different when compared to Alternative B or the No Action Alternative.

Adoption of Alternative C would not result in significant impacts to the terrestrial ecology of the region. Any land use request would be subject to a site-specific NEPA review, which would identify unique or important resources potentially present on that site.

3.3.2.4 Alternative D - Individual Water-Use Facilities with Restrictions

Vegetation

In comparison to Alternative B, implementation of Alternative D would have comparable impacts to those described for Alternative B.

Wildlife

Impacts to terrestrial animals under Alternative D would be substantially the same as Alternative B except that fewer parcels would be identified for potential new development under Alternative B.

Adoption of Alternative D would not result in significant impacts to the terrestrial ecology of the region. Any land use request would be subject to a site-specific NEPA review, which would identify unique or important resources potentially present on that site.

3.4. Aquatic Ecology

3.4.1 Affected Environment

Aquatic habitat in the littoral (near shore) zone is greatly influenced by underwater topography and backlying land use. Underwater topography at Tims Ford Reservoir varies from moderately steep, with scattered small bluffs near the river channel, to typically shallower in embayments, coves, and areas further from the river channel and tributary stream channels. Undeveloped shoreline is mostly wooded, and fallen trees and brush provide woody cover in those areas. The cold-water discharges from Tims Ford Dam allow a trout fishery to be maintained by TWRA in the tailwaters below the dam.

Tims Ford Reservoir's primary hydrologic unit code (HUC) watershed is 06030003, the Upper Elk River watershed. This watershed covers an area of approximately 1,275 square miles and includes parts of eight middle Tennessee counties. The Elk River is a vital part of this watershed and Tims Ford Dam plays a role in managing water resources within it.

Rock is an important constituent of littoral aquatic habitat over much of the reservoir, in either the form of bedrock outcrops or a mixture of rubble and cobble on steeper shorelines or gravel along shallower shorelines. Substrate and available aquatic habitat in coves and embayments also typically correspond to shoreline topography and vegetation. In areas characterized by residential development, habitat includes man-made features such as shoreline stabilization structures (e.g., seawalls or riprap) and docks. Fallen trees are less numerous in residential areas.

TVA began a program to systematically monitor the ecological conditions of its reservoirs in 1990. Previously, reservoir studies had been confined to assessments to meet specific needs as they arose. Reservoir (and stream) monitoring programs were combined with

TVA's fish tissue and bacteriological studies to form an integrated Vital Signs Monitoring program. The following descriptions of Tims Ford Reservoir's existing condition are based primarily on results from this program since the 2000 Tims Ford RLMP.

Benthic Community – Benthic macroinvertebrate (e.g., lake bottom-dwelling, readily-visible, aquatic worms, snails, crayfish, and mussels) samples were taken in two areas of Tims Ford Reservoir in 2005, 2007, 2009, 2011, 2013, 2015, 2017, 2019, 2021, and 2023. Areas sampled include the forebay at Elk River mile (ERM) 1.0, and a mid-reservoir transition station at ERM 15.0.

Bottom-dwellers are included in aquatic monitoring programs because of their importance to the aquatic food chain and because they have limited capability of movement, thereby preventing them from avoiding undesirable conditions. Sampling and data analysis were based on seven parameters that indicate species diversity, abundance of selected species that are indicative of good (and poor) water quality, total abundance of all species except those indicative of poor water quality, and proportion of samples with no organisms present. As shown in Table 3.3, the benthic community in Tims Ford Reservoir rated from Very Poor to Poor in comparison to other run-of-the-river TVA reservoirs. Since the 2000 Tims Ford RLMP, the scores have not improved.

Table 3.3 Benthic Community Ratings

Station	Monitoring Years									
	2005	2007	2009	2011	2013	2015	2017	2019	2021	2023
Forebay	Very Poor	Very Poor	Very Poor	Very Poor	Very Poor	Very Poor	Very Poor	Very Poor	Very Poor	Very Poor
Mid-reservoir	Very Poor	Very Poor	Very Poor	Poor	Very Poor	Very Poor	Poor	Poor	Poor	Poor

Ecological Health – Sampling at Tims Ford Reservoir from 2001 through 2019 since the 2000 RLMP are presented in Table 3.4. Ratings for Tims Ford Reservoir have remained Poor or at the low end of Fair. Ecological health evaluations focus on five indicators: dissolved oxygen, chlorophyll, sediment quality, benthic macroinvertebrate community, and fish assemblage.

Table 3.4 Tims Ford Reservoir Ecological Health Ratings

Monitoring Years									
2005	2007	2009	2011	2013	2015	2017	2019	2021	2023
Very Poor	Poor	Fair	Fair	Poor	Poor	Poor	Fair	Poor	Poor

3.4.2 Environmental Effects

3.4.2.1 Alternative A – No Action Alternative

Under Alternative A, TVA would not take any action to amend the 2000 RLMP and would continue to manage parcels consistent with allocations in the 2000 RLMP. No impacts to the current aquatic ecology of Tims Ford Reservoir would be expected because TVA would

continue to manage parcels consistent with allocations in the 2000 RLMP and approved allocation changes that have occurred since the 2000 RLMP was completed. Any shift in ecological conditions would be related to natural ecological processes and not adoption of the No Action Alternative.

3.4.2.2 Alternative B - Proposed RLMP Alternative (Preferred)

Under Alternative B, there would be a decrease in lands previously allocated as Zone 3 (Sensitive Resource Management) and Zone 4 (Natural Resource Conservation) by 57.9 acres. The decreased acreage is primarily due to the reallocation to Zone 2 for roadway and utility ROWs. Compared to Alternative A, allocation changes from Zone 3 to Zone 4 would see a decrease of 276.3 acres due to fewer areas identified with sensitive resources of some type. The zone allocations that would likely have the most opportunities to impact the aquatic ecology of Tims Ford Reservoir are Zone 2 (Project Operations), Zone 6 (Developed Recreation) and Zone 7 (Shoreline Access). Overall, those zones combined would be increased by 154.3 acres, but these increases are mostly due to allocating unplanned land to reflect existing land uses, allocations to Zone 2 for existing infrastructure, and allocation changes from Zone 8 (Conservation Partnership) to Zone 7 which essentially have the same land uses. Therefore, adoption of Alternative B would have no adverse impacts to the aquatic ecology of Tims Ford Reservoir.

As noted previously, prior to approving any specific activities on these parcels, TVA would conduct an appropriate level of site-specific environmental review to determine the potential environmental effects to aquatic ecosystems of the proposed use and to address adverse effects, as appropriate.

3.4.2.3 Alternative C - Modified Zone 8 (Conservation Partnership)

In comparison to Alternative B, implementation of Alternative C would result in a small increase (34.7 acres, less than 1 percent) in lands allocated to Zone 3 and Zone 4. Lands allocated to Zone 2, Zone 5, Zone 6 and Zone 8 would decrease by 34.5 acres compared to Alternative B. Parcels allocated to Zone 7, The small increase in land allocated to Zones 3 and 4 and the decrease in allocations to other zones would result in minor beneficial impacts to the aquatic ecology of Tims Ford Reservoir.

In comparison to Alternative B, implementation of Alternative D would result in no change in parcels allocated to Zone 4. There would be slightly less Zone 3 acreage (0.2 percent and 9.3 acres) than Alternative B due to an expansion of Parcel 136 proposed for Zone 6. The small increase in land allocated to Zone 6 would have no adverse impacts to the aquatic ecology of Tims Ford Reservoir.

Please note, for Alternatives, B, C and D, prior to approving any site-specific activities on any parcels, TVA would conduct a site-specific environmental review to determine the potential effects of the proposed use(s) to address potential effects, as appropriate.

3.4.2.4 Alternative D - Individual Water-Use Facilities with Restrictions

In comparison to Alternative B, implementation of Alternative D would result in no change in parcels allocated to Zone 4. There would be slightly less Zone 3 acreage (0.2 percent and 9.3 acres) than Alternative B due to an expansion of Parcel 136 proposed for Zone 6 . The

small increase in land allocated to Zone 6 would have no adverse impacts to the aquatic ecology of Tims Ford Reservoir.

Please note, for Alternatives, B, C and D, prior to approving any site-specific activities on any parcels, TVA would conduct a site-specific environmental review to determine the potential effects of the proposed use(s) to address potential effects, as appropriate.

3.5. Threatened and Endangered Species

The Endangered Species Act (ESA) provides broad protection for species of fish, plants and wildlife that are listed as threatened or endangered in the U.S. or elsewhere. The ESA outlines procedures for federal agencies to follow when taking actions that may jeopardize the existence of federally listed species. The policy of Congress is that federal agencies must seek to conserve endangered and threatened species and use their authorities in furtherance of the ESA's purposes.

The State of Tennessee (State) provides legal protection for species considered threatened, endangered, or deemed in need of management within the state other than those federally listed under the ESA. The legal listing is handled by TDEC; however, the Tennessee Heritage Program and TVA both maintain databases of species that are considered threatened, endangered, or special concern, or tracked in Tennessee. Species listed under the ESA or by the State (see Table 3-5) are discussed in this section.

Table 3.5 Federally and State-listed Species Known from the Vicinity of Tims Ford Reservoir and Federally Listed Species from Franklin and Moore Counties[1]

Common Name	Scientific Name	Federal Status[2]	State Status[2]	State Rank[3]
Plants				
A liverwort	*Pellia appalachiana*	-	S	S2
American ginseng	*Panax quinquefolius*	-	S-CE	S3S4
American smoketree	*Cotinus obovatus*	-	S	S2
Beakrush	*Rhynchospora perplexa*	-	T	S2
Blackfoot quillwort	*Isoetes melanopoda*	-	E	S1S2
Broadleaf barbara's-buttons	*Marshallia trinervia*	-	T	S2S3
Butternut	*Juglans cinerea*	-	T	S3
Button sedge	*Carex bullata*	-	S	S3
Cumberland rosinweed	*Silphium brachiatum*	-	E	S3
Death-camas	*Stenanthium tennesseense*	-	T	S2
Dwarf huckleberry	*Gaylussacia dumosa*	-	T	S3
Dwarf sundew	*Drosera brevifolia*	-	T	S2
Eggert's sunflower[4]	*Helianthus eggertii*	DL	S	S3
False gromwell	*Onosmodium molle ssp. subsetosum*	-	E	S1
Globe-fruited ludwigia	*Ludwigia sphaerocarpa*	-	T	S1

Common Name	Scientific Name	Federal Status[2]	State Status[2]	State Rank[3]
Lady-slipper	*Cypripedium kentuckiense*	-	E	S2
Low frostweed	*Helianthemum propinquum*	-	E	S1S2
Manna-grass	*Glyceria acutiflora*	-	S	S2
Morefield's leather-flower[4]	*Clematis morefieldii*	E	E	S2
Mountain honeysuckle	*Lonicera dioica*	-	S	S2
Naked-stem sunflower	*Helianthus occidentalis*		S	S2
Narrow blue flag	*Iris prismatica*	-	T	S2S3
Panic-grass	*Dichanthelium ensifolium ssp. curtifolium*	-	E	S1
Prairie goldenrod	*Oligoneuron album*	-	E	S1S2
Price's potato-bean[4]	Apios priceana	T	-	-
Rough rattlesnake-root	*Prenanthes aspera*	-	E	S1
Roundleaf fameflower	*Phemeranthus teretifolius*	-	T	S2
Sand cherry	*Prunus pumila*	-	E	S1
Shortleaf beardgrass	*Gymnopogon brevifolius*	-	S	S1S2
Spreading false-foxglove	*Aureolaria patula*	-	S	S3
Virginia chainfern	*Woodwardia virginica*	-	S	S2
Water-milfoil	*Myriophyllum pinnatum*	-	E	S1
White fringeless orchid[4]	*Platanthera integrilabia*	T	-	-
White prairie-clover	*Dalea candida*	-	T	S2
Yellow-eyed-grass	*Xyris laxifolia var. iridifolia*	-	T	S2
Invertebrates				
Monarch butterfly	*Danus plexippus*	PT	-	S4
Painted snake coiled forest snail[5]	*Anguispira picta*	T	T	S1
Birds				
Bachman's sparrow[4]	*Peucaea aestivalis*	-	E	S1B
Bald eagle[4]	*Haliaeetus leucocephalus*	DL	-	S3
Black-crowned night heron	*Nycticorax nycticorax*	-	-	S2
Whooping crane	*Grus americana*	EXPN	-	SX
Mammals				
Gray bat[5]	*Myotis grisescens*	E	E	S2
Indiana bat[4]	*Myotis sodalis*	E	E	S1
Little brown bat[4]	*Myotis lucifugus*	UR	T	S3
Northern long-eared bat[4]	*Myotis septentrionalis*	E	E	S1S2
Tricolored bat	*Perimyotis subflavus*	PE	T	S2S3

Common Name	Scientific Name	Federal Status[2]	State Status[2]	State Rank[3]
Aquatic Animals				
Alabama lampmussel[4]	*Lampsilis virescens*	H	E, XN	-
Angled riffleshell	*Epioblasma biemarginata*	X	-	-
Ashy darter	*Etheostoma cinereum*	H?	-	E
Boulder darter	*Etheostoma wapiti*	AC	E, XN	E
Cracking pearlymussel	*Hemistena lata*	C	E, XN	E
Cumberland monkeyface[5]	*Quadrula intermedia*	E	E, XN	E
Cumberlandian combshell	*Epioblasma brevidens*	C	E, XN	E
Fine-rayed pigtoe[4]	*Fusconaia cuneolus*	H	E, XN	E
Flame chub	*Hemitremia flammea*	E	-	D
Fluted kidneyshell[4]	*Ptychobranchus subtentum*	X	E	E
Harelip sucker	*Moxostoma lacerum*	X	-	-
Little-wing pearlymussel[5]	*Pegias fabula*	X	E	E
Ornate rocksnail	*Lithasia geniculata*	E	-	-
Pale lilliput[5]	*Toxolasma cylindrellus*	X	E	E
Purple lilliput	*Toxolasma lividus*	X	-	-
Rayed bean	*Villosa fabalis*	H	E	E
Round hickorynut	*Obovaria subrotunda*	H?	T	-
Shiny pigtoe pearlymussel[4]	*Fusconaia cor*	E	E, XN	E
Slabside pearlymussel[45]	*Pleuronaia dolabelloides*	E	E	E
Smooth rabbitsfoot	*Quadrula cylindrica cylindrica*	C	T	T
Southern cavefish	*Typhlichthys subterraneus*	H	-	D
Tan riffleshell[4]	*Epioblasma florentina walkeri*	H	E	E
Tennessee clubshell[4]	*Pleurobema oviforme*	E	PE	-
Tennessee pigtoe[4]	*Pleuronaia barnesiana*	E	E, XN	-
Tuberculed blossom pearlymussel	*Epioblasma torulosa torulosa*	X	DL	E
Turgid blossom pearlymussel[4]	*Epioblasma turgidula*	X	DL	E
Umbilicate river snail	*Leptoxis umbilicata*	H	-	-
Warty rocksnail	*Lithasia lima*	H	-	-

[1] Source: TVA Regional Natural Heritage database, queried April 2025. USFWS Information for Planning and Consultation (IPaC) online system (USFWS 2025) retrieved 06/2025
[2] Status Codes: DM= Delisted, still being monitored; DL = Delisted; E = Endangered; EXPN = Experimental population, non-essential, H = Historical, H? = Possibly historical, S = Special concern/possibly extirpated; S-CE = Special concern/commercially exploited; T = Threatened; UR = Under review.
[3] State Ranks: S1 = Critically imperiled; S2 = Imperiled; S3 = Vulnerable; S4 = Apparently secure; S#S# = Combination of ranks; SX = Presumed Extirpated.

[4] Federally listed species known from Franklin County
[5] Federally listed species known from Moore County

3.5.1 Affected Environment

Plants

A review of the TVA Regional Natural Heritage database and the USFWS IPaC website (USFWS 2025) indicates that three federally listed, and 34 state-listed plant species have been reported from within 3 miles of Tims Ford Reservoir lands, three federally listed plants have been reported in Franklin County, and no federally listed plants species are known from Moore County (see Table 3.5). Designated critical habitat for plants are not known to occur on Tims Ford Reservoir lands. Descriptions of federally listed plants are below.

Morefield's leather-flower is a perennial vine in the buttercup family with urn-shaped flowers occurring singly or in few-flowered groups in the leaf axils. The pinkish flowers are present from May to July. It occurs in patches on limestone bluffs within open red cedar-hardwood forests, and near springs, seeps and ephemeral streams in rocky limestone woods. This species requires habitat typically at elevations of 800 to 1,700 feet, on the south and southwest facing slopes of mountains (NatureServe 2025). There may be suitable habitat present to support this species on TVA parcels, but none are known to occur in the study area.

Price’s potato bean is a twining, herbaceous, perennial vine with greenish white to brownish-pink flowers. Its habitat includes rocky, wooded slopes and floodplain edges. Sites are usually under mixed hardwoods or in associated forest clearings, often where bluffs or ravine slopes meet creek or river bottoms (NatureServe 2025). There may be suitable habitat present to support this species on TVA parcels, but none are known to occur in the study area.

White fringeless orchid is a perennial herb with white flowers. It is generally found in wet, flat, boggy areas in acidic muck or sand with low fertility and low organic matter content, and in partially, but not fully shaded areas at the head of streams or seepage slopes. It is a mycotrophic perennial herb that is dependent on a single fungal species (*Epulorhiza inquilina*), and the abundance and distribution of this fungus may limit germination and distribution (NatureServe 2025). There may be suitable habitat present to support this species on TVA parcels, but none are known to occur in the study area.

Terrestrial Animals

A review of the TVA Regional Natural Heritage database and the USFWS IPaC website (USFWS 2025) indicates three caves have been documented within the study area. One federally protected (bald eagle), one proposed listed (tricolored bat), one federally listed (gray bat), and three state-listed (Bachman’s sparrow, black-crowned night heron, and little brown bat) terrestrial animal species have been recorded within 3 miles of the study area. Two additional federally listed terrestrial animal species (northern long-eared bat and painted snake coiled forest snail) have been reported from Franklin and Moore counties. Finally, USFWS has determined the federally proposed monarch butterfly and federally listed whooping crane require review in this area.

Invertebrates

Monarch butterfly is highly migratory, with eastern U.S. populations overwintering in Mexico. Summer breeding habitat in the U.S. requires milkweed plant species, on which adults exclusively lay eggs for larvae to develop and feed on. Adults will drink nectar from other blooming wildflowers when milkweeds are not in bloom. No records of monarch butterfly are known from Franklin and Moore counties, although the USFWS has determined that this species has the ability to occur within the study area. Suitable monarch butterfly habitat may exist within the study area.

Painted snake coiled forest snail is known to occur on limestone outcrops and cliff faces in the escarpment of the Cumberland Plateau. Occurrences are based on some evidence of historical or current presence of single or multiple specimens, including live specimens or recently dead shells (NatureServe 2025). There may be suitable habitat present to support this species on TVA parcels, but none are known to occur in the study area.

Birds

Bachman's sparrow is typically found in dry open pine (in southern states) or oak woods (e.g., western portion of range) with an undercover of grasses and shrubs, hillsides with patchy brushy areas, overgrown fields with thickets and brambles, grassy orchards, and large clear-cuts. It nests on the ground in dense cover, against/under grass tuft or under low shrub, in grassy opening, field, or area with scattered trees (NatureServe 2025). Suitable habitat for Bachman's sparrow may exist in the study area.

Bald eagles are protected under the Bald and Golden Eagle Protection Act (USFWS 2013). This species is associated with larger mature trees capable of supporting its massive nests. These are usually found near larger waterways where the eagles forage (USFWS 2007). One bald eagle nest record is known within 3 miles of Tims Ford Reservoir. Suitable habitat for bald eagles is present within the Tims Ford Reservoir area.

Black-crowned night heron occupies a variety of fresh, brackish, and saltwater habitats including, marshes, lakes, swamps, streams, ponds, estuaries, and coastal areas. Eggs are laid in a platform nest in groves of trees within these habitat types. This species is typically a colonial nester and feeds opportunistically on fish, amphibians, invertebrates, young birds, and small mammals. One black-crowned night heron record is known within 3 miles of the study area. Suitable habitat for this species is abundant within the study area.

Whooping cranes occupy sandy, gently rolling grasslands with live oak, red bay, and bluestem plants within the Valley. Migrating birds feed in croplands and roost in shallow, freshwater wetlands. In the eastern U.S., a small captive-raised population breeds in Wisconsin and overwinters in Florida. Since 2007, a small group of atypical individuals have come to winter in Tennessee, in a rural area on the Cumberland River. The whooping crane is listed as Endangered in the Southwest (USFWS Region 2). Outside of this region, the whooping crane is categorized as a non-essential experimental population. For the purposes of consultation, non-essential experimental populations are treated as threatened species on National Wildlife Refuge and National Park land (i.e., require consultation under Section 7(a)(2) of the ESA) and as a proposed species on private land (no Section 7(a)(2) requirements), but federal agencies must not jeopardize their existence (Section 7(a)(4) (USFWS 2023a). Suitable migration habitat may exist within the study area.

Mammals

Gray bats roost in caves year-round and migrate between summer and winter roosts during spring and fall (Brady et al. 1982, Tuttle 1976a). At dusk, bats disperse over bodies of water where they forage for insects emerging from the surface of the water (Tuttle 1976b). Gray bat has been documented within 3 miles of Tims Ford Reservoir. Twelve caves are known within 3 miles of the study area, two of which occur within the study area. Gray bats are known to roost in one of these caves and on one structure on TVA parcels. No change to the zoning of the parcel where the gray bat cave is located is proposed. Foraging habitat for gray bats occurs across Tims Ford Reservoir.

Indiana bats hibernate in caves in winter and use areas around them for swarming (mating) in the fall and staging in the spring, prior to migration back to summer habitat. During the summer, Indiana bats roost under the exfoliating bark of dead snags and living trees in mature forests with an open understory and a nearby source of water (Pruitt and TeWinkel 2007, Kurta et al. 2002). Indiana bats are known to change roost trees frequently throughout the season, while still maintaining site fidelity, returning to the same summer roosting areas in subsequent years (Pruitt and TeWinkel 2007). There are three records of Indiana bat within 3 miles of Tims Ford Reservoir. This species has been documented from a hibernaculum approximately 4 miles from the study area. Suitable summer roosting habitat for this species occurs throughout the project in forested areas and suitable foraging habitat occurs throughout the study area in forests and over bodies of water.

Little brown bats remain widespread in North America although abundance has decreased in recent years due to the effects of white-nose syndrome, a fungal disease caused by an introduced pathogen. The single most significant current threat to this species is mortality from behavioral changes induced by white-nose syndrome. These bats use a wide range of habitats including caves and hollow trees and often use human-made structures for resting and maternity sites. Foraging occurs over water, along the margins of lakes and streams, or in woodlands near water. Winter hibernation sites include caves, tunnels, abandoned mines, and similar sites. Maternity colonies commonly occur in warm sites in buildings (e.g., attics) and other structures; and sometimes in hollow trees. Suitable summer roosting habitat for this species occurs throughout the study area in forested areas. Suitable foraging habitat for this species occurs throughout the study area in forests and over bodies of water. Two caves occur within the study area. Records of little brown bat have been documented within 3 miles of Tims Ford Reservoir. Little brown bats have been documented roosting in a structure on a TVA parcel. This parcel is currently allocated as Zone 3 (Sensitive Resource Management) and has been proposed for reallocation to Zone 2 (Project Operations) under all three action alternatives (B, C and D). Suitable roosting and foraging habitat is abundant for this species throughout the study area.

The northern long-eared bat predominantly overwinters in large hibernacula such as caves, abandoned mines, and cave-like structures. During the fall and spring, they utilize entrances of caves and the surrounding forested areas for swarming and staging. In the summer, northern long-eared bats roost individually or in colonies beneath exfoliating bark or in crevices of both live and dead trees (typically greater than 3 inches in diameter). Roost selection by northern long-eared bat is similar to that of Indiana bat, however northern long-eared bats are thought to be more opportunistic in roost site selection. This species also

roosts in abandoned buildings and under bridges. Northern long-eared bats emerge at dusk to forage below the canopy of mature forests on hillsides and roads, and occasionally over forest clearings and along riparian areas (USFWS 2014). There are not any records of northern long-eared bats from within 3 miles of Tims Ford Reservoir. Suitable summer roosting habitat for this species occurs throughout the study area in forested areas. Suitable foraging habitat for this species occurs throughout the study area in forests and over bodies of water.

Tricolored bat hibernates in caves, mines, and rock crevices. In summer they roost in dead or live vegetation in live trees. They are associated with forested landscapes where they forage near trees and along waterways, especially riparian areas (Harvey 2011). In middle Tennessee, tricolored bats were observed roosting within clumps of dead foliage hanging from branches of live trees. The dead foliage was typically comprised of hickory or oak leaves (Thames 2020). This species has been documented in the one cave found on a TVA parcel. This parcel would be allocated as Zone 6 (Developed Recreation) and no change to the zoning of this parcel is proposed. Suitable summer roosting habitat for this species occurs throughout the study area in forested areas. Suitable foraging habitat for this species occurs throughout the study area in forests and over bodies of water.

Aquatic Species

A review of the TVA Regional Natural Heritage database and the USFWS IPaC website (USFWS 2025) indicates that seven federally listed and nine state-listed aquatic animal species have been recorded within the Upper Elk River watershed of Tims Ford Reservoir but only six of these species are ranked as extant. Nine federally listed aquatic animal species have been reported from Franklin County, and one federally listed aquatic animal species has been reported from Moore County. Information relating to the aquatic federally and state-listed species known to occur within Tims Ford Reservoir is still pertinent and incorporated by reference from the 2000 EIS (TVA 2000a).

3.5.2 Environmental Effects

3.5.2.1 Alternative A – No Action Alternative

Plants

Adoption of the No Action Alternative would not impact federally listed plant species or designated critical habitat because neither occurs on the Tims Ford Reservoir lands. Adoption of the No Action Alternative would result in no appreciable changes to plant communities on Tims Ford Reservoir lands compared to the current state. All parcels would continue to be managed according to their current designation. Plant communities that support known populations of state-listed plant species would continue to change over time, but those changes would be unrelated to the continued implementation of this alternative. Any new land use request would continue to be subject to a site-specific NEPA review, which would identify new or existing populations of state-listed plant species if they occur within the action area. Adoption of Alternative A would have no discernable impact on state-listed plant species.

Terrestrial Animals

TVA would not take any action to amend the 2000 RLMP and would continue to implement the 2000 RLMP. In the 2000 EIS, TVA identified impacts to terrestrial animals as insignificant negative impacts. Current threatened or endangered terrestrial animals and their habitats would not be affected under this alternative. Any new land use request would continue to be subject to a site-specific NEPA review, which would identify new or existing populations of species if they occur within the action area.

Aquatic Species

Under Alternative A, no impacts to federally or state-listed aquatic species would occur from the continued implementation of the 2000 RLMP. New land use requests would be subject to a site-specific NEPA review, which would consider potential impacts to aquatic species.

3.5.2.2 Alternative B - Proposed RLMP Alternative (Preferred)

In comparison to Alternative A, implementation of Alternative C would result in a small increase (34.7 acres, less than 1 percent) in lands allocated to Zone 3 and Zone 4 (Natural Resource Conservation). Lands allocated to Zone 2, Zone 5 (Industrial), Zone 6, Zone 7 (Shoreline Access), and Zone 8 (Conservation Partnership) would decrease by 34.5 acres compared to Alternative B. Listed species records on parcels allocated as Zone 3 and Zone 4 are afforded protected buffers due to the lack of development on these lands. The small increase in land allocated to Zones 3 and 4 and the decrease in allocations to other zones would result in minor beneficial impacts to plants and animals. Two bat species are known to roost under a bridge that is currently allocated as Zone 3 and a portion of that parcel is proposed to be reallocated as Zone 2 to reflect existing roadway and transmission line ROWs. This particular bridge is within the roadway ROW. The proposed change from Zone 3 to Zone 2 is administrative in nature and reflects the existing land use on the parcel. The proposed change from Zone 3 to Zone 2 for existing ROWs is not expected to have adverse effects to bat species because the land use/management is not changing. Alternative B protects several large areas containing wetlands and other sensitive terrestrial habitats. Many of these areas act as riparian buffer zones and, thus, will have an indirect but positive effect on aquatic habitat quality.

Any future proposed ground disturbing actions on parcels evaluated in this draft EA would still receive additional environmental review. Consultation with USFWS under Section 7 of the ESA would occur as appropriate for federally listed species when activities on the ground are proposed. Appropriate minimization or avoidance measures would be put in place to avoid significant impacts.

Overall proposed zone allocations under Alternative B would not be significantly different when compared to the No Action Alternative. At this time, the proposed major and minor zoning changes would not affect threatened and endangered species.

3.5.2.3 Alternative C - Modified Zone 8 (Conservation Partnership)

Adoption of Alternative C would have comparable impacts to those described for Alternative B. Like Alternative B, two bat species are known to roost under a bridge that is currently allocated as Zone 3 and a portion of that parcel is proposed to be reallocated as Zone 2 to reflect existing roadway and transmission line ROWs. This particular bridge is within the

roadway ROW. The proposed change from Zone 3 to Zone 2 is administrative in nature and reflects the existing land use on the parcel. The proposed change from Zone 3 to Zone 2 for existing ROWs is not expected to have adverse effects to bat species because the land use/management is not changing. Any future proposed ground disturbing actions on parcels evaluated in this draft EA would still receive additional environmental review. Consultation with USFWS under Section 7 of the ESA would occur as appropriate for federally listed species when activities on the ground are proposed. Appropriate minimization or avoidance measures would be put in place to avoid significant impacts.

3.5.2.4 Alternative D - Individual Water-Use Facilities with Restrictions

Adoption of Alternative D would have comparable impacts to those described for Alternative B. The potential for impacts would be slightly increased under Alternative D because Parcel 166 would be allocated for Zone 6 compared to Alternative B, as such, use has a greater potential for development and ground disturbing activities. Also, similar to Alternative B, two bat species are known to roost under a bridge that is currently allocated as Zone 3 and a portion of that parcel is proposed to be reallocated as Zone 2 to reflect existing roadway and transmission line ROWs. This particular bridge is within the roadway ROW. The proposed change from Zone 3 to Zone 2 is administrative in nature and reflects the existing land use on the parcel. The proposed change from Zone 3 to Zone 2 for existing ROWs is not expected to have adverse effects to bat species because the land use/management is not changing. Overall proposed zone allocations under Alternative D would not be significantly different when compared to Alternative B or the No Action Alternative. Any future proposed ground disturbing actions on parcels evaluated in this draft EA would still receive additional environmental review.

3.6. Water Quality

3.6.1 Affected Environment

Tims Ford Dam was constructed between 1966 and 1970. Tims Ford Reservoir is an impoundment of the Elk River formed by Tims Ford Dam which is located at Elk River mile (ERM) 133.3. In addition to power generation and recreation, Tims Ford Reservoir provides water supply and flood damage reduction downstream on the Elk River, primarily for Fayetteville, Tennessee.

Tims Ford Reservoir provides a resource for power generation, recreation, water supply, and flood damage reduction downstream on the Elk River. The reservoir stretches 34 miles upstream from the dam in middle Tennessee, providing 309 miles of shoreline. The drainage area of the Elk River upstream of Tims Ford Dam consists of 529 square miles. Tims Ford Reservoir has a flood-storage capacity of 219,600 acre-feet and a total surface area of 10,500 acres. The summer operating range of the reservoir is typically between elevations 885 above feet mean sea level (msl) and 888 feet msl.

Tims Ford Reservoir is located in the Upper Elk River watershed in the Cumberland Plateau province. The watershed encompasses 1,277 square miles in middle Tennessee and includes parts of Bedford, Coffee, Franklin, Giles, Grundy, Lincoln, Marshall, and Moore counties before flowing into the Lower Elk River watershed.

Table 3.6 Upper Elk River Watershed County Distribution

County	Percent of Watershed in County
Bedford	0.1 percent
Coffee	8.7 percent
Franklin	**30.1 percent**
Giles	6.1 percent
Grundy	7.6 percent
Lincoln	33.4 percent
Marshall	4.3 percent
Moore	**9.7 percent**

The Upper Elk River watershed contains productive, nutrient-rich waters, resulting in algae, rooted vegetation, and occasionally high densities of fish. The plateau of the watershed receives slightly more precipitation with cooler annual temperatures than the surrounding lower-elevation regions and is characterized by high gradient streams. Tims Ford Reservoir and Woods Reservoirs are popular boating and fishing areas. The lakes support largemouth and smallmouth bass, while areas below the dams are fished for stocked rainbow trout. The land supports cotton, corn, and soybean production as well as swine and cattle. Runoff from this area is controlled by dams above Tims Ford Reservoir on the Elk River and several of its upstream tributaries. The remainder of the watershed consists of the minor tributaries draining directly into the reservoir and the Upper Elk River watershed.

The Upper Elk River watershed is generally in good condition, although the watershed is vulnerable to agricultural pollution and urban growth in the area. Woods Reservoir, upstream from Tims Ford Reservoir, has been posted against catfish consumption due to high levels of PCBs in catfish flesh. The discharges from the dam at Woods Reservoir (Elk River Dam) are cold and low in DO (TDEC 2024a). Rock Creek, a tributary of Tims Ford Reservoir, is impacted by a municipal sewage plant in Tullahoma and ongoing land development in the area. Dry Creek, another tributary, is impacted by siltation resulting from agriculture. One Tims Ford Reservoir tributary, Boiling Fork Creek, is considered by TDEC to have regional significance for natural and scenic qualities, recreational boating, and recreational fishing. The Elk River has statewide significance for these categories and is considered as excellent to good fishery (TDEC 2024a). The Upper Elk River watershed has mostly level terrain, with areas of rolling and hilly topography and slightly higher elevations. Limestone, chert, shale, and dolomite predominate, and karst terrain sinkholes and depressions are especially noticeable between Sparta and McMinnville. Numerous springs and spring-associated fish fauna also typify the region (TVA 2000a).

Water quality parameters in the reservoir have been sampled since 1991 as part of TVA's Reservoir Vital Signs monitoring program. DO levels at the forebay (the area immediately behind the dam) in 1996 rated "poor." These levels, as in past years, were less than 2 milligrams per liter (mg/L) throughout most of the lower water column during the late summer (August-October), and at or near zero on the bottom from July through October. Chlorophyll levels (i.e., the amount of algae present), which are an indicator of primary productivity in the aquatic food chain, rated "good" at the forebay in 1996 and were higher

than in any previous year. Sediment rating in 1996 was “fair” at the forebay where, as in previous years, elevated levels of nickel were found (TVA 2022).

Watersheds are delineated by the U.S. Geological Survey (USGS) using a nationwide system for the purpose of assessment and management activities. Hydrologic units are important to water quality because they define land areas that drain into a specific stream. Each hydrologic unit is identified by a unique HUC consisting of two to twelve digits. HUCs are used for reference for scientific study, sampling, and impact analysis. Tims Ford Reservoir is within the Upper Elk River watershed (06030003). The Upper Elk River watershed that drains into Tims Ford Reservoir is ecologically rated as fair or good.

3.6.1.1 TVA Water Quality Monitoring and Results

Reservoir water quality information is available from TVA’s Reservoir Health Rating monitoring program. The ecological health of Tims Ford Reservoir has been monitored using the same methodology since 1994. Ecological health evaluations focus on five indicators: dissolved oxygen, chlorophyll, sediment quality, benthic macroinvertebrate community (bottom life), and fish assemblage. For a discussion of the biological ratings, see Section 3.4 Aquatic Ecology. TVA monitors two locations on Tims Ford Reservoir for physical and chemical characteristics and sediment contaminants, typically on a two-year cycle. The forebay, the deep, still water near the dam at ERM 135.0, is monitored in addition to the middle part of the reservoir at ERM 150.0 (TVA 2022).

The ecological health of Tims Ford Reservoir rated “poor” in 2022, similar to previous years. Low dissolved oxygen concentrations in the lower water column and “poor” ratings for bottom life continue to drive the lower ratings in Tims Ford Reservoir. “Fair” ratings for chlorophyll and sediment quality have also reduced the overall ecological health score in some years. (see Figure 3-1).

The overall ecological health for Tims Ford Reservoir was rated “poor” in 2017. Tims Ford Reservoir has rated either “poor” or at the low end of the “fair” range all years except 1994, when it scored slightly higher due primarily to improved chlorophyll concentrations (see Figure 3-1).

In 2022, TVA monitored for dissolved oxygen, chlorophyll and sediment in the two locations. Findings are summarized in Table 3.7.

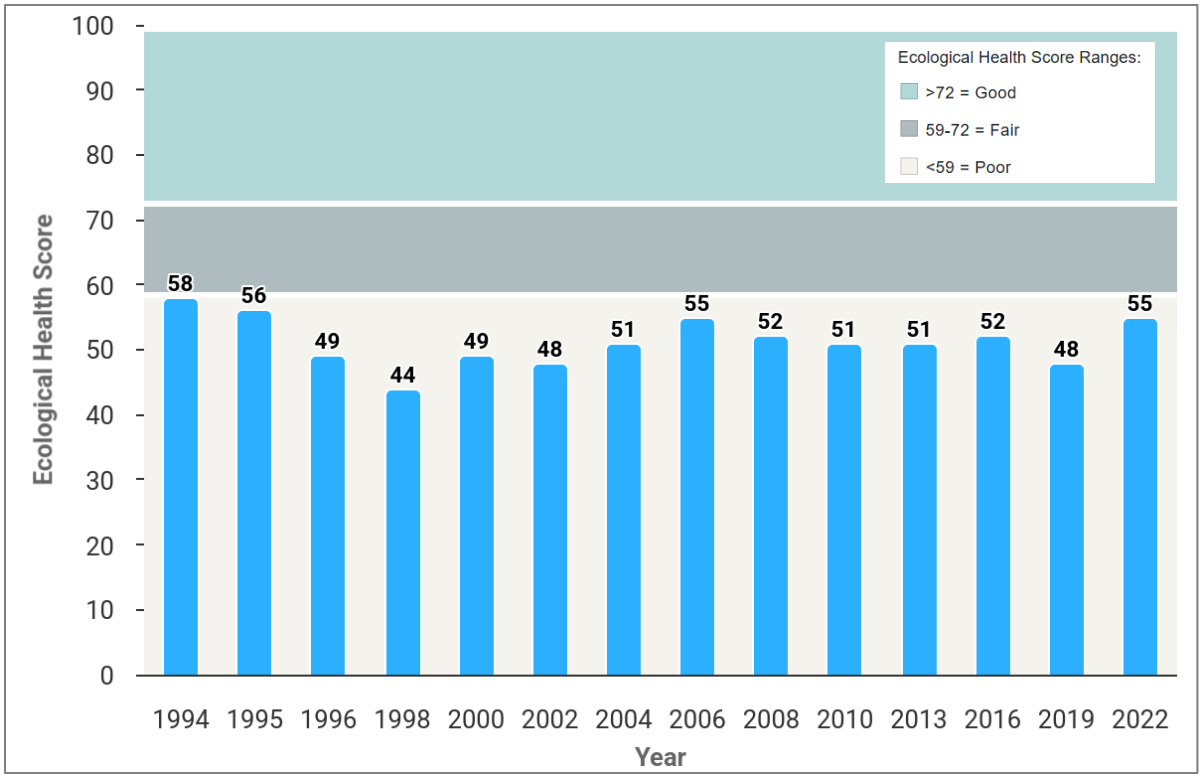

Figure 3-1 Ecological Health Ratings for Tims Ford Reservoir, 1994-2022

Table 3.7 Ecological Health Indicators for Tims Ford Reservoir, 2022

Monitoring location	Dissolved oxygen	Chlorophyll	Sediment
Forebay	Poor	Good	Fair
Mid-reservoir	Poor	Good	Fair

Dissolved oxygen (DO) is the amount of oxygen that is present in water and is necessary in respiration of most aquatic organisms. If concentrations of DO are low, it can adversely affect the health and diversity of aquatic organisms. DO rated “poor” at both monitoring locations in 2022, consistent with findings from previous years. Oxygen concentrations were low (<2 mg/L) in portions of the lower water column during summer and autumn at both monitoring locations, including extended periods of time when an area of water was completely devoid of oxygen.

Prevailing weather patterns and related changes in reservoir flows are major factors in differing dissolved oxygen conditions from year-to-year. Reduced flows through the reservoir during periods of low rainfall and runoff can cause poorer DO conditions. The Valley has experienced periodic drought-like conditions, thereby allowing for more stagnant conditions and lower DO concentration in bottom waters.

Chlorophyll is used as a surrogate measurement for the amount of phytoplankton in the water. Increased levels of phytoplankton production can cause adverse ecological and use impacts, such as reduced water clarity, more frequent algal blooms, and higher oxygen demands which reduces the amount of DO in the water. As noted in Table 3.7 above, chlorophyll rated “good” at both monitoring locations. At the forebay, chlorophyll has rated “good” or high “fair” each year monitored, but ratings at the mid-reservoir have fluctuated more, varying between “good”, “fair”, and “poor”. Chlorophyll concentrations have varied in response to the timing and amount of rainfall. Because of the mid-reservoir’s proximity to the Elk River inflow, chlorophyll concentrations at this location are more influenced by the nutrients flowing into the reservoir.

Sediment quality is the measure of the number of polychlorinated biphenyls (PCBs), pesticides, and metals in sediment on the bottom of the reservoir. If these sediments are contaminated, they can have adverse impacts on bottom fauna and can often be long-term sources of toxic substances to the aquatic environment. Sediment quality rated “fair” for both monitoring locations in 2022. Nickel and arsenic exceeded suggested background levels in both the forebay and mid-reservoir samples. Sediment quality typically rates “fair” at the forebay and “good” or “fair” at the mid-reservoir location. Nickel and arsenic have exceeded suggested background levels at both locations in some previous years. Low levels of the pesticide chlordane have been detected at the mid-reservoir location in the past (1996, 1998 and 2002). Additionally, low levels of PCBs were detected in the samples at both monitoring locations in 2016 and 2019.

3.6.1.2 Recent Evaluations by the State of Tennessee

The federal Clean Water Act (CWA) requires all states to identify all waters where required pollution controls are not sufficient to attain or maintain applicable water quality standards and to establish priorities for the development of limits based on the severity of the pollution and the sensitivity of the established uses of those waters. The states are required to submit an Impaired and Threatened Waters list (formerly known as the section 303(d) list) and section 305(b) water quality reports to the EPA. See Appendix F for the 2024 Upper Elk River watershed report (TDEC 2024b).

Tims Ford Reservoir is listed on the 2024 TDEC 303(d) list as impaired by PCBs due to contaminated sediments. Tributaries of the reservoir listed as not supporting or only partially supporting stream use classifications were Reeves Branch, Carr Creek, Molino Creek, Kelly Creek, Shelton Creek, Robinson Creek, Beans Creek, Elk River, Woods Reservoir, Boiling Fork Creek, Wagner Creek, Yellow Branch, West Fork Mulberry Creek, Childer Creek, Gum Creek, and Hessey Branch. All were listed as low or not applicable TMDL priority. Listed causes were priority pollutant organics, organic enrichment, DO levels, high nutrient levels, siltation, and flow alterations (TDEC 2024b).

3.6.2 Environmental Effects

The major source of potential adverse impacts to reservoir water quality is from land uses, such as construction and development, that result in increases in soil erosion and sediment transported into the reservoir. Land cover changes can cause an increase in the quantity and velocity of runoff leading to or increasing erosion of conveyances and streams. Also affected by a change in land cover, such as a change from natural land cover to a

developed condition, is the potential of pollutants entering streams and conveyances. For example, nutrients applied for maintenance of landscaping have the possibility to increase the loading of nitrogen and phosphorus in surface runoff. Other pollutants, such as oil from vehicles, can also be found in surface water runoff from impervious surfaces, ultimately making their way to a stream or reservoir. Increased boat traffic in the reservoir could also cause potential water quality impacts due to leaking fuel and oil.

Potential impacts to water quality would be greater from parcels allocated to Zone 2 (Project Operations), Zone 5 (Industrial), or Zone 6 (Developed Recreation) where more development and intensive land use could occur. Activities allowed in Zone 7 (Shoreline Access) have the potential to have a direct impact on water quality due to soil erosion, but development in Zone 7 is typically at a smaller scale and would likely cause minor and localized impacts.

3.6.2.1 Alternative A – No Action Alternative

Under the No Action Alternative, potential impacts to water quality would be anticipated with their existing zone allocations as discussed in the 2000 EIS. Some potential impacts identified were increased protection of water quality due to less development and use of best management practices to minimize negative impacts, particularly from agricultural runoff. Erosion and nutrient runoff would be expected to be higher from parcels allocated land to Zone 5, Zone 6, and Zone 7, where soil disturbance, increased runoff of agricultural/ lawn chemicals and paved surfaces. These activities could cause increased turbidity, increased levels of substances toxic to aquatic life, increased bacteriological content, and an increase in nutrient loading.

There has been no noticeable impact on sediment in Tims Ford Reservoir based on the 2000 allocations. The rating for sediment has been categorized as “good.” Increased nutrient loading was identified as a possible impact in the 2000 EIS. Chlorophyll has historically been rated “fair,” and “good” in both the forebay and mid-reservoir and is currently rated “fair” at the forebay and mid-reservoir. Under Alternative A, these potential impacts would still be applicable.

3.6.2.2 Alternative B - Proposed RLMP Alternative (Preferred)

Under Alternative B, TVA would amend the 2000 Tims Ford RLMP by reallocating land use zones on 95 parcels affecting approximately 560.2 acres (12.0 percent) of the 4,685.5 acres of TVA-managed public lands on Tims Ford Reservoir. Parcels allocated to Zone 3 (Sensitive Resource Management) and Zone 4 (Natural Resource Conservation) and are not actively used and have the least chance of impacting water quality. Under Alternative B, the acreage allocated to Zone 3 and Zone 4 would total 3,047.8 acres compared to 3,105.4 acres under Alternative A. This small reduction should have no impact on water quality.

Many of the changes associated with Alternative B generally correspond to a designation change to reflect current land uses and conditions. However, the change to allocations that allow future development increases the potential for adverse impacts to water quality because land would be allocated to zones that are not as protective of water quality. Allocations to Zones 2 (Project Operations), Zone 5 (Industrial), Zone 6 (Developed Recreation), and Zone 7 (Shoreline Access) would have the greatest potential for impacting

water quality due to runoff and erosion from ground-disturbing activities. These zones would also allow for future development that have the greatest potential for increasing water supply demands and wastewater discharges. There would be a potential for changes in the existing land cover from construction activities due to future development. There would also be potential for an increase in the impervious surface area due to the additions of buildings and parking lots. This increase of impervious surface area has the potential to concentrate storm water discharges, which could increase localized flooding, surface erosion and turbidity in local surface waters. Overall, those zones combined would be increased by 154.3 acres, but these increases are mostly due to allocating unplanned land to reflect existing land uses, allocations to Zone 2 for existing infrastructure, and allocation changes from Zone 8 (Conservation Partnership) to Zone 7. Therefore, adoption of Alternative B would have no adverse impacts on water quality.

Prior to any development of TVA reservoir lands, additional site-specific environmental reviews would take place to address potential impacts on water quality. Many proposals would be subject to permitting to address water quality. Construction activities, including land disturbing activities of 1.0 acre or more, are regulated under the state's National Pollutant Discharge Elimination System (NPDES) programs for stormwater discharges from construction activities. Industrial discharges are required coverage under NPDES programs in which permit limits are set for new facilities with permitted discharges. These limits are designed to prevent degradation of applicable water quality criteria. The use of vegetated buffer zones and other BMPs would reduce the potential for negative impacts of riparian vegetation removal associated with development. The use of buffer zones and other BMPs are widely accepted as effective methods in removing water pollutants from surface water and protecting water quality. With the implementation of adequate BMPs and properly engineered stormwater controls, the impacts from future developments would be temporary and minimal. With knowledge of the condition of the reservoir and many changes being administrative in nature to reflect current conditions, activities under Alternative B would not significantly impact water quality.

3.6.2.3 Alternative C - Modified Zone 8 (Conservation Partnership)

In comparison to Alternative B, implementation of Alternative C would result in a small increase (34.7 acres, less than 1 percent) in lands allocated to Zone 3 and Zone 4. Lands allocated to Zone 2, Zone 5, Zone 6, Zone 7 and Zone 8 would decrease by 34.5 acres compared to Alternative B. The small increase in land allocated to Zones 3 and 4 and the decrease in allocations to other zones would result in no major impacts on water quality.

3.6.2.4 Alternative D - Individual Water-Use Facilities with Restrictions

In comparison to Alternative B, implementation of Alternative D would result in no change in parcels allocated to Zone 4. There would be slightly less Zone 3 acreage (0.2 percent and 9.3 acres) than Alternative B due to an expansion of Parcel 136 proposed for Zone 6. The small increase in land allocated to Zone 6 would have no adverse impacts on water quality.

Please note, for Alternatives, B, C and D, prior to approving any site-specific activities on any parcels, TVA would conduct a site-specific environmental review to determine the potential effects of the proposed use(s) to address potential effects, as appropriate.

3.7. Wetlands

3.7.1 Affected Environment

Wetlands are those areas inundated or saturated by surface or groundwater such that vegetation adapted to saturated soil conditions is prevalent (USACE 33 Code of Federal Regulations [CFR] § 328(b); EPA 40 CFR § 230.3(t)). Typically, wetland habitat represents transitional features between upland and open water. Examples include bottomland forests, swamps, wet meadows, isolated depressions, and shallows or shoreline fringe along watercourses or impoundments. Due to their landscape position, vegetation structure, and influence on downstream hydrology, wetlands provide a suite of benefits valued by society. These include toxin absorption and sediment retention for improved water quality, storm water impediment and attenuation for flood control, shoreline buffering for erosion protection, and fish and wildlife habitat for commercial, recreational, and conservation purposes.

Tims Ford Reservoir is located within the Eastern Highland Rim and Outer Nashville Basin ecoregions (EPA 2024a), which are characterized by a mixture of plateau areas, some plains with hills; open hills, gently rolling to steep; and highly dissected escarpments. The hydrology of this area generally constitutes small upland drainage features intersecting lower gradient streams tributary to rivers meandering valley bottoms. Highland Rim and Outer Basin are home to various types of wetlands, including forested wetlands, upland swamps, as well as prairie and barrens complexes and riparian wetlands along rivers and streams.

Tims Ford Reservoir provides adequate hydrology for wetland development in its shallow embayments and along the reservoir shorelines. Tims Ford Reservoir is located in the Upper Elk River watershed (HUC 06030003). The Elk River and reservoir system is included on Tennessee's list of impaired waters, under Section 303(d) of the Clean Water Act. Therefore, wetlands within the reservoir system function to provide water quality benefits for the impaired water resource.

The previous wetland extent across all TVA parcels on Tims Ford Reservoir is incorporated by reference from the 2000 EIS (TVA 2000a). This analysis utilized the 2000 EIS and photo interpretation of aerial imagery to identify approximately 360 acres of wetlands across the Tims Ford Reservoir system (TVA 1998a) and 161.38 acres within the TVA-managed land. (Table 3.8). Wetland community types include emergent, scrub-shrub, and forest habitat (Cowardin et al. 1979). Emergent wetlands often occur as shoreline fringe or where water levels fluctuate to a depth that allows for establishment and growth of non-woody, herbaceous species. Dominant vegetation generally consists of emergent, erect, rooted, or floating hydrophytes such as water lilies, cattails, rushes, sedges, reeds, or forbs adapted to saturated soils. Scrub-shrub wetlands are dominated by woody plants less than 20 feet tall, and may include buttonbush, dogwood, or swamp rose. Scrub-shrub wetlands can also represent successional communities comprised of sapling species that have not yet achieved forest stature. Forested wetlands typically occur in bottomlands where moisture is relatively abundant, exhibiting a species composition of mature overstory trees, an understory shrub layer, and emergent vegetation as a ground cover (EPA 2024b).

Approximately 80 percent of all identified wetland areas within the Tims Ford Reservoir system were allocated as Zone 3 (Sensitive Resource Management) or Zone 4 (Natural Resource Conservation) in the 2000 RLMP (TVA 2000a). These TVA zones ensured preservation or enhancement of wetland habitat where wetlands occur. Therefore, these wetlands' functions and values previously identified as important components of the Tims Ford Reservoir system have been protected or managed for overall ecological improvement since 2000.

The remaining 20 percent of wetland area occurred in zones previously allocated for some degree of development Zone 2 (Project Operations), Zone 6 (Developed Recreation), or Zone 7 (Shoreline Access). However, in accordance with the 2000 EIS (TVA 2000a), proposed impacts to wetland areas would have been afforded individual review and avoidance, minimization of impacts, and compensatory mitigation would have been provided. TVA's Section 26a permitting process ensures wetland impacts have been avoided to the extent practicable. In addition, the 2000 EIS identifies improvements proposed to the majority of wetlands on the Tims Ford Reservoir as offsetting wetland impacts elsewhere within the reservoir system.

Although an estimated 360 acres of wetland habitat was identified through photo interpretation across the Tims Ford Reservoir system (TVA 1998a), 161.38 acres are located on TVA-managed parcels and 45.52 wetland acres are known from allocation change parcels (Table 3.8). Of these wetland acres, 45.52 acres of wetlands are located on portions of parcels proposed for reallocation to a different zone, and 116.26 acres of wetlands are on portions of parcels that are not proposed for an allocation change. The majority of wetland areas are comprised of scrub-shrub wetlands, followed by, forested wetlands and emergent wetland communities (Table 3.8).

Table 3.8 Photo Interpreted Wetland Acreage by Wetland Type Across Tims Ford Reservoir and on Affected Parcels

Wetland Type	Wetlands on TVA Reservoir Property	Wetland Areas on Allocation Change Parcels
Scrub Shrub	78.81	21.45
Forested	38.74	12.37
Emergent	43.83	11.70
Total	**161.38 acres**	**45.52 acres**

National wetland trends have remained relatively stable in recent history (Dahl 2011), and TVA's reservoir land management practices have contributed to this trend. In addition, existing wetland regulations that ensure no net loss of wetland resources (EPA 1990) would ensure wetland impacts are avoided and minimized to the extent practicable. Therefore, the majority of wetland area located on the affected parcels is anticipated to have remained relatively stable in area and quality, although some succession from shrub to forest in sapling dominated wetlands would have occurred. Regardless, due to the overwhelming presence on affected parcels currently allocated for conservation under Zone 4 coupled with regulatory oversight that ensures wetland avoidance, affected wetland area is

anticipated to reflect similar wetland extent and condition as documented in the 2000 EIS (TVA 2000a).

3.7.2 Environmental Effects

EO 11990 (Protection of Wetlands) requires federal agencies, such as TVA, to avoid wetland impacts to the extent practicable, minimize wetland destruction, loss, or degradation, and preserve and enhance natural and beneficial wetland values, while carrying out agency responsibilities. The U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or fill material and associated secondary impacts to waters of the United States, including wetlands, under the CWA §404 [33 USC § 1344]. CWA §401 mandates state water quality certification for projects requiring USACE approval and for TVA approvals under Section 26a of the TVA Act for activities that may result in a discharge.

In Tennessee, an aquatic resource alteration permit (ARAP) authorized by TDEC provides water quality certification under CWA §401. An ARAP is required for any alteration to the physical, chemical, or biological properties of any waters of the state, including wetlands, pursuant to the Tennessee Water Quality Control Act (§69-3-108, 0400-40-07). TDEC's permit process ensures compliance with Tennessee's anti-degradation policy as well (§69-3-108, 0400-40-04). Tennessee's jurisdiction would apply to regulated activities affecting wetlands within the study area, including both isolated and hydrologically connected wetland features tributary to Tims Ford Reservoir, which is on TDEC's 303(d) list of impaired waters (TDEC 2024b). This regulatory oversight ensures no more than minimal impacts to the aquatic environment and no net loss of wetland resources (EPA 1990).

3.7.2.1 Alternative A – No Action Alternative

Under the No Action Alternative, TVA would continue to manage parcels on Tims Ford Reservoir consistent with allocations in the 2000 Tims Ford RLMP. In the 2000 EIS, TVA's selected alternative emphasized preservation and enhancement of wetland resources. This level of conservation would continue for wetlands located within natural resource conservation zoned parcels. Impacts to wetlands associated with public or commercial recreation were expected to be minor and undergo individual environmental reviews to ensure no net loss of wetland resources. Current wetland protection and management paired with existing compliance mechanisms for proposed wetland impacts would continue to ensure wetland habitat remains relatively stable long term.

3.7.2.2 Alternative B – Proposed RLMP Alternative (Preferred)

Alternative B proposes land use reallocations across roughly 13 parcels containing approximately 45.52 acres of mapped wetland habitat. Of this wetland acreage, 26.40 acres overlay parcels proposed for reallocation to Zone 2, Zone 6 or Zone 7 to correct mapping errors, align with approved land use, or reflect road and transmission line ROWs. Wetland areas within these parcels remain subject to individual environmental reviews and wetland regulatory compliance if any actions are proposed within the parcels. Revising the zone allocation for this wetland acreage is administrative in nature, and the new zoning would have no impacts to wetland resources within these parcels because the allocation changes reflect existing land uses.

Of the remaining estimated 19.12 acres of wetland habitat on parcels proposed for rezoning under Alternative B, all are identified on parcels currently zoned for conservation under Zone 4 that would be reallocated to Zone 3 or that are currently unallocated and would be allocated as Zone 3 (0.40 acre). Zone reallocation for these parcels, however, would not change the management or use of these TVA-managed lands. Wetlands on these parcels would continue to be protected and would be evaluated for management to the benefit of wetland function and value as the need arises.

As shown in Table 3.9 below, 19.12 acres would be reallocated to Zone 3 or Zone 4, further promoting conservation of wetland areas within the Tims Ford Reservoir system. Whereas 26.40 acres would be rezoned to an allocation that could allow for increased impacts Zone 2 or Zone 7, but those proposed allocation changes are for administrative purposes to reflect the existing land uses, and no additional impacts are anticipated. TVA would conduct a site-specific environmental review of proposed plans to assess potential impacts to wetlands. Potential wetland impacts associated with any proposed development plans would be subject to TVA's compliance with EO 11990 (Protection of Wetlands) and wetland mandates ensuring no net loss of wetland resources across the landscape.

Table 3.9 Wetland Acreage Affected by Alternative B Allocation Changes

Impact Assumption	Zone Change (Alternative B)	Affected Wetland Acreage	Category Acreage
Decreased Potential Impacts Increased Protection	Unplanned to Zone 3	0.40	Change to Zone 3 or 4 19.12 acres
Neutral Impacts	Zone 3 to 4	18.50	
	Zone 4 to 3	0.22	
	Zone 7 to 2	0.13	Change to Zone 2 or 7 26.40 acres
	Zone 6 to 2	0.64	
Increased Potential Impacts Decreased Protection	Zone 3 to 2	22.84	
	Zone 4 to 2	1.94	
	Zone 3 to 7	0.83	

In consideration of total anticipated impacts for the administrative changes, the neutral impacts and the additional allocation of parcels containing wetland acreage to Zone 3 or Zone 4 for conservation purposes, the overall wetland impacts under Alternative B are anticipated to have no significant impact on wetland resources on the Tims Ford Reservoir system compared to the No Action Alternative.

3.7.2.3 Alternative C - Modified Zone 8 (Conservation Partnership)

Under Alternative C, the Zone 8 allocation would remain with updated criteria and some parcels that would not qualify for the updated Zone 8 allocation would revert to Zone 4. There would be more Zone 4 acreage than Alternative B, and the proposed allocations to Zone 3 are consistent with Alternative B. If any future development is proposed, site-specific environmental reviews would be conducted if development is proposed. Like Alternative B, the small increase in land allocated to Zone 6 would have no significant impacts to wetlands.

Any wetlands identified on site would be subject to TVA's compliance with EO 11990 and state and federal wetland mandates that sufficiently ensure no significant wetland impacts through avoidance, minimization, and wetland compensatory mitigation. Therefore, proposed changes under Alternative C are anticipated to be the same as those under Alternative B.

3.7.2.4 Alternative D - Individual Water-Use Facilities with Restrictions

Under Alternative D, one more parcel is proposed to be reallocated for Zone 6 than under Alternative B. There would be slightly less Zone 3 acreage (0.2 percent and 9.3 acres) than Alternative B due to an expansion of Parcel 136 proposed for Zone 6. No mapped wetland resources are evident on the parcel, and a site-specific environmental review would be conducted if development is proposed. Any wetlands identified on site would be subject to TVA's compliance with EO 11990 and state and federal wetland mandates that sufficiently ensure no significant wetland impacts through avoidance, minimization, and wetland compensatory mitigation. Like Alternative B, the small increase in land allocated to Zone 6 would have no significant impacts on wetlands.

3.8. Floodplains

3.8.1 Affected Environment

A floodplain is the relatively level land area along a stream or river that is subject to periodic flooding. The area subject to a 1.0 percent chance of flooding in any given year is normally called the 100-year floodplain. The area subject to a 0.2 percent chance of flooding in any given year is normally called the 500-year floodplain. It is necessary to evaluate development in the floodplain to ensure that the project is consistent with the requirements of EO 11988 (Floodplain Management).

With the exception of the 2000 alternative analyses (Environmental Effects), information on floodplains is incorporated by reference from the 2000 EIS (TVA 2000a). TVA's 1981 Class Review of Repetitive Actions in the 100-Year Floodplain is unchanged from 2000 (TVA 1981). TVA computed Tims Ford Reservoir flood profiles in 2015, and the 100- and 500-year flood elevations are tabulated in Appendix G.

3.8.2 Environmental Effects

As a federal agency, TVA adheres to the requirements of EO 11988 (Floodplain Management). The objective of EO 11988 is "…to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative" (EO 11988, Floodplain Management). The EO is not intended to prohibit floodplain development in all cases, but rather to create a consistent government policy against such development under most circumstances (U.S. Water Resources Council 1978). The EO requires that agencies avoid the 100-year floodplain unless there is no practicable alternative.

3.8.2.1 Alternative A – No Action Alternative

Under Alternative A, TVA would continue to manage its lands based on the 2000 RLMP and would not change any parcel allocations. Development of and/or land management activities on TVA-managed properties would continue to be made on a case-by-case basis, and evaluations of proposed actions would be done individually to ensure compliance with EO 11988. Potential development would generally consist of repetitive actions in the floodplain such as construction of water-use facilities that should result in minor impacts to floodplains and their natural and beneficial values. Therefore, the overall impacts to floodplains from Alternative A would be the same those described in the 2000 EIS.

For Alternatives, B, C and D, prior to approving any site-specific activities on any parcels, TVA would conduct a site-specific environmental review to determine the potential effects of the proposed use(s) to address potential effects, as appropriate. Development and land management activities on TVA-managed properties would be made on a case-by-case basis, and evaluations would be done individually to ensure compliance with floodplain management EO 11988. Potential development would generally consist of water use facilities and other repetitive actions in the floodplain that should result in minor adverse impacts to floodplains and their natural and beneficial values.

3.8.2.2 Alternative B – Proposed RLMP Alternative (Preferred)

Under Alternative B, approximately 560.2 acres would change from one land allocation zone to another. Of the 560.2 acres, TVA would allocate 94.8 acres or 2.0 percent to reflect existing land use agreements or commitments. The remaining 465.4 acres (9.9 percent) involve parcel allocations that are not based on existing land use agreements or commitments. About 10.2 percent (477.6 acres) of TVA owned land on Tims Ford Reservoir would be allocated to Zone 2 (Project Operations). About 87 acres of land already used for project operations and related infrastructure would be allocated to Zone 2 from a different land use zone, primarily to reflect the actual use of the land. The 303.78 acres represents about 10.2 percent of the allocation changes proposed under Alternative B. As shown in Table 3.10, of the remaining areas, the land allocation changes would result in uses that would result in overall neutral to slightly adverse impacts on floodplains compared to the No Action Alternative.

Table 3.10 Relative Potential for Impacts due to Allocation Changes

Zone	Alternative B	Alternative C	Alternative D
3	Decrease (neutral)	Decrease (neutral)	Decrease (neutral)
4	Increase (beneficial)	Increase (beneficial)	Increase (beneficial)
5	Decrease (beneficial)	Decrease (beneficial)	Decrease (beneficial)
6	Increase (adverse)	Increase (adverse)	Increase (adverse)
7	Increase (adverse)	Decrease (beneficial)	Increase (adverse)
8	Decrease (beneficial)	Decrease (beneficial)	Decrease (beneficial)

Compared to the No Action Alternative, Alternative B would result in a net slight increase of overall environmental impact to floodplains, if parcels allocated for more intensive uses are developed over time.

3.8.2.3 Alternative C - Modified Zone 8 (Conservation Partnership)

Floodplain impacts associated with Alternative C would be similar to those of Alternative A. Potential impacts associated with Alternative C would be similar as Alternative B except that the Zone 8 allocation would remain for some parcels. Under Alternative C, approximately 58.0 percent or 2,715.6 acres would be allocated as Zone 4 (Natural Resource Conservation). This would be more acreage (0.8 percent and 34.4 acres) than Alternative B. Like Alternative B, Zone 6 (Developed Recreation) acreage would have a minor increase of 9.6 acres. Approximately 9.8 percent (459.7 acres) would be allocated as Zone 7 (Shoreline Access), and this would be less acreage (1.3 percent and 58.7 acres) than Alternative B. The Zone 8 allocation would remain, and the qualification criteria would be modified for Zones 7 and 8. Approximately 0.5 percent (24.3 acres) of TVA-managed land around Tims Ford Reservoir would be allocated to Zone 8. Similar to Alternative B, the overall impacts of Alternative C would be minor and insignificant relative to floodplains and their natural and beneficial values.

3.8.2.4 Alternative D – Individual Water-Use Facilities with Restrictions

In comparison to Alternative B, implementation of Alternative D would result in no change in parcels allocated to Zone 4. There would be slightly less Zone 3 (Sensitive Resource Management) acreage (0.2 percent and 9.3 acres) than Alternative B due to an expansion of Parcel 136 proposed for Zone 6. Similar to Alternative B, the overall impacts of Alternative D would be minor and insignificant relative to floodplains and their natural and beneficial values.

3.9. Air Quality

3.9.1 Affected Environment

National Ambient Air Quality Standards (NAAQS) limit concentrations in the outside air of six pollutants: particulate matter, sulfur dioxide, carbon monoxide, ozone, nitrogen dioxide, and lead. These standards are designed to protect public health and welfare. An area where any air quality standard is violated is designated as a “nonattainment” area for that pollutant, and emissions of that pollutant from new or expanding sources are carefully controlled. Neither Franklin nor Moore counties are designated as attainment areas.

In addition, prevention of significant deterioration (PSD) regulations protects national parks and wilderness areas that are designated PSD Class I air quality areas. A new or expanding major air pollutant source within 31 miles of a Class I area would be required to estimate potential impact on the air quality of that Class I area. In addition, the federal land manager having jurisdiction over the Class I area may request similar action for large sources at distances of 31 to 62 miles. There are not any PSD Class I areas within 62 miles of Tims Ford Reservoir.

Any new industrial or commercial development would be expected to meet Clean Air Act standards in effect at the time. Any facilities on TVA-managed land or facilities in the

surrounding area may also require an air quality permit from the State. The air permitting process evaluates the magnitude of air emissions from the proposed source and from existing nearby sources, meteorological factors that affect dispersion of the pollutants, and the proximity to areas with special air quality requirements, such as nonattainment areas and PSD Class I areas.

Air emissions would be greatest from uses allowed in lands allocated to Zone 5 (Industrial). Based on the types of activities allowable on lands allocated to Zone 2 (Project Operations) and Zone 6 (Developed Recreation) (boat traffic around locks and dams, operating facilities, construction of public works projects and motor craft and vehicle use) air emissions would be minor. Uses allowed on lands allocated to Zones 3, 4 and 7 (Sensitive Resource Management, Natural Resource Conservation and Shoreline Access) generate little or no air emissions.

Pollution from construction equipment, fugitive dust emissions from operation of this equipment during dry conditions, and increased traffic during construction would cause some minor and temporary air quality degradation in the vicinity of the reservoir. However, state air pollution rules require construction projects to use reasonable precautions to prevent fugitive dust emissions. After construction is completed, normal residential activities, such as wood stoves, fireplaces, and gas-powered lawnmowers, would contribute somewhat to deterioration in local air quality, though it is not expected to have any impact on regional air quality.

Climate change refers to any substantive change in measures of climate, such as temperature, precipitation, or wind (EPA 2016). The 2014 National Climate Assessment concluded that global climate is projected to continue to change over this century and beyond. The amount of warming projected beyond the next few decades, by these studies, is directly linked to the global emissions of greenhouse gases (e.g., carbon dioxide [CO2], methane) and particles. By the end of this century, the 2014 National Climate Assessment concluded a 3°Fahrenheit (F) to 5°F rise can be projected under the lower emissions scenario and a 5°F to 10°F rise for a higher emissions scenario (Melillo et al. 2014).

Activities that contribute greenhouse gas emissions include industrial activities, manufacturing activities, barge, truck, and personal use; motorized watercraft traffic; and other construction involving the use of fossil-fuel-powered equipment (e.g., bulldozers, loaders, haulers, trucks, generators, etc.). Reservoir land uses with potential to generate greenhouse gas emissions primarily occur on Zones 2, 5, 6 and 7. Management that decreases greenhouse gas emissions occur primarily on lands allocated for Zones 3 and 4. For example, protecting forested areas that absorb and store CO2 from the atmosphere via a process known as carbon sequestration reduces CO2 in the atmosphere.

3.9.2 Environmental Effects

3.9.2.1 Alternative A – No Action Alternative

Under Alternative A, the 2000 RLMP would remain in place and any proposed industrial, commercial, or residential development would continue to be evaluated on a case-by-case basis. Under the 2000 RLMP, approximately 79.7 percent of TVA-managed land on Tims

Ford Reservoir would remain allocated as Zones 3 and 4, where activities are unlikely to result in greenhouse gas emissions and highly likely to provide carbon sequestration. Approximately 22.0 percent of lands are allocated for Zones 2, 5, 6, and 7, where greenhouse gas emissions may occur. Only 0.002 percent of these lands would be allocated for industrial use, the use most likely to result in future emissions of greenhouse gases. Because any development would be subject to air quality standards, it is unlikely that there would be significant effects to local or regional air quality or to the climate. As current conditions would continue under this alternative, there would be no air quality effects associated with this alternative.

3.9.2.2 Alternative B – Proposed RLMP Alternative (Preferred)

Under Alternative B, there would be a decrease in land previously allocated as Zone 3 and Zone 4 by 57.9 acres. The increased acreage is primarily due to the reallocation to Zone 2 for roadway and utility ROWs. Compared to Alternative A, allocation changes from Zone 3 to Zone 4 would see a decrease of 276.3 acres due to fewer areas identified with sensitive resources of some type. The zone allocations that would likely have the most opportunities to impact air quality are Zone 2, Zone 5, Zone 6 and Zone 7. Overall, those zones combined would be increased by 154.3 acres, but these increases are mostly due to allocating unplanned land to reflect existing land uses, allocations to Zone 2 for existing infrastructure, and allocation changes from Zone 8 to Zone 7. Adoption of Alternative B would have no measurable impacts on air quality.

3.9.2.3 Alternative C – Modified Zone 8 (Conservation Partnership)

In comparison to Alternative B, implementation of Alternative C would result in a small increase (34.7 acres, less than 1 percent) in lands allocated to Zone 3 and Zone 4. Lands allocated to Zone 2, Zone 5, Zone 6, Zone 7, and Zone 8 would decrease by 34.5 acres compared to Alternative B and would result in lower potential for air quality impacts. However, the small increase in land allocated to Zones 3 and 4 and the decrease in allocations to other zones would not result in measurable impacts to air quality.

3.9.2.4 Alternative D – Individual Water-Use Facilities with Restrictions

In comparison to Alternative B, implementation of Alternative D would result in no change in parcels allocated to Zone 4. There would be slightly less Zone 3 acreage (0.2 percent and 9.3 acres) than Alternative B due to an expansion of Parcel 136 proposed for Zone 6. The small increase in land allocated to Zone 6 would have no measurable impacts to air quality.

3.10. Cultural and Historic Resources

3.10.1 Affected Environment

Cultural resources include precontact and historic archaeological sites, districts, buildings, structures, and objects, as well as locations of important historic events that lack material evidence of those events. Cultural resources that are listed, or considered eligible for listing, on the National Register of Historic Places (NRHP) are called historic properties. To be considered an historic property, a cultural resource must possess both integrity and significance. A historic property's integrity is based on its location, design, setting, materials, workmanship, feeling, and association. The significance is established when

historic properties meet at least one of the following criteria: (a) are associated with important historical events or are associated with the lives of significant historic persons; (b) embody distinctive characteristics of a type, period, or method of construction; (c) represent the work of a master or have high artistic value; or (d) have yielded or may yield information important in history or prehistory (36 CFR Part 60.4).

Section 106 of the NHPA requires federal agencies to consider the effects of their proposed undertakings on historic properties. TVA determined that Alternative B - Proposed RLMP Alternative (Preferred Alternative) is an “undertaking” as defined by the regulations under NHPA. Once an action is determined to be an undertaking, the regulations require agencies to consider whether the proposed activity has the potential to impact historic properties. If the undertaking is such an activity, then the agency must follow the following steps: (1) initiate and involve the appropriate consulting parties and define the area of potential effects (APE); (2) identify historic properties in the APE; (3) evaluate possible effects of the undertaking on historic properties in the APE; and (4) resolve adverse effects (36 CFR § 800.4 through 800.13). An APE is defined as the “geographic area or areas within which the undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist” (36 CFR § 800.16). Concerning cultural resources, the APE is taken as the affected environment for purposes of this EA. TVA defined the APE to be the approximately 560.2-acre area where TVA is proposing to change land use allocations. Information relating to the cultural resources known to occur on TVA-managed land is still pertinent and incorporated by reference from the 2000 EIS (TVA 2000a).

Section 106 of the NHPA also requires federal agencies to consult with the respective SHPOs and Indian tribes when proposed federal actions could affect historic and cultural resources, including archaeological resources, which are also protected under the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act, in addition to the NHPA. TVA is consulting with the Tennessee SHPO and federally recognized tribes who have expressed an interest in Franklin and Moore counties seeking concurrence that the reallocation of properties constituted an undertaking and that each individual undertaking should be reviewed under the ratified Section 106 Programmatic Agreement.

3.10.1.1 Archaeological Resources

The Tims Ford Reservoir region represents a diverse cultural landscape that held special meaning to its past inhabitants and to their descendants. Some of these places can be considered Traditional Cultural Properties (TCP), which are defined as properties that are eligible for inclusion on the NRHP because of their association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community (Parker and King 1998). It should be noted that TVA does not make public sensitive information regarding the location or other information regarding sacred sites or TCPs identified by consulting tribes.

TVA fee-owned land at Tims Ford Reservoir has been subject to both systematic and opportunistic archaeological surveys for TVA undertakings and land planning actions. Because survey coverage below summer pool elevation is inconsistent and due to the lack of comprehensive data on survey coverage throughout TVA’s history, it is difficult to

estimate the percentage of TVA-managed lands associated with the RLMP that have been systematically surveyed. It is estimated that at least half of Tims Ford Reservoir has not had an archaeological survey. Many additional archaeological sites are likely present that have not been recorded as a result of the limited surveys conducted.

TVA Cultural Resources staff conducted a cultural background review on the previous and proposed parcel allocations for the proposed draft 2025 RLMP. Sources include TVA's CRMS database, TVA Land Acquisition Maps, The Tennessee Division of Archaeology (TDOA) Site File, TVA's Native American removal routes (NARR) database, and various Tims Ford Reservoir archaeological survey reports. Staff found that the majority of proposed parcel allocations in previously unsurveyed areas are within Zone 4 (Natural Resource Conservation), or Zone 7 (Shoreline Access) and are generally appropriate as there could be yet undiscovered cultural resources in those areas. Staff found that most areas where sensitive resources have been identified would remain appropriately either Zone 3 (Sensitive Resources Management) or Zone 4, but some areas with known archaeological sites have different proposed zone allocations. Known archaeological site locations (roughly 60 total) on Tims Ford Reservoir mostly conform to a proposed designation of either Zone 3 or 4 but also have been noted within Zone 2 (Project Operations) (one parcel), Zone 6 (Developed Recreation) (one parcel) or Zone 7 (one parcel). Three of the known archaeological sites in zones other than Zones 3 or 4 have been recommended as eligible for listing on the NRHP.

Proposed actions on parcels that have the potential to cause effects to archaeological resources are subject Section 106 review under the NHPA.

3.10.1.2 Historic Structures

A systematic identification survey for historic structures has not been conducted for TVA fee-owned land at Tims Ford Reservoir. Only one historic structure has been evaluated for the NRHP on or near Tims Ford Reservoir. Tims Ford Dam has been listed in the NRHP due to the historic significance associated with the development of the dam.

Upon acquiring land for construction of the TVA reservoirs, TVA removed most buildings and structures from the impoundment zones. The structures that remain include individual farmsteads or larger scale plantations, civic or religious sites such as churches, cemeteries or schools, and industrial sites such as mills. The formation of reservoirs on the Elk River and its tributaries permanently changed the cultural geography of those regions.

Proposed actions on parcels that have the potential to cause effects to historic structures are subject to Section 106 review under the NHPA.

3.10.2 Environmental Effects

As noted above, federal agencies are required by the NHPA and NEPA to consider the possible effects of their undertakings on historic properties. Through the review and consultation process, agencies work to resolve adverse effects to historic properties of an undertaking. A project may have effects on a historic property that are not adverse, if those effects do not diminish the qualities of the property that identify it as eligible for listing on the NRHP. However, if the agency determines (in consultation) that the undertaking's effect on

a historic property within the APE would diminish any of the qualities that make the property eligible for listing on the NRHP (based on the criteria for evaluation at 36 CFR Part 60.4), the effect is said to be adverse. Examples of adverse effects would be ground disturbing activity in an archaeological site, or erecting structures within the viewshed of a historic building in such a way as to diminish the structure's integrity of feeling or setting. Adverse effects must be resolved. Resolution may consist of avoidance (such as redesigning a project to avoid impacts or choosing a project alternative that does not result in adverse effects), minimization (such as redesign to lessen the effects, or planting visual screenings), or mitigation. Adverse effects to archaeological sites are typically mitigated by means of excavation to recover the important scientific information contained within the site. Mitigation of adverse effects to historic structures sometimes involves thorough documentation of the structure by compiling historic records, studies, and photographs. Agencies are required to consult with SHPOs, tribes, and others throughout the process and to document adverse effects to historic properties resulting from agency undertakings.

Actions can affect historic properties directly or indirectly at a later time, at a distance from the action. While this land plan does not directly affect historic properties, the plan allocates land for certain uses which could affect historic properties as land use projects materialize in the future. TVA will continue to conduct project-related reviews of proposed activities in TVA-controlled areas where such activities could affect historic properties. Historic properties within these areas will be avoided and protected whenever possible. If avoidance is not possible, proper procedures would be implemented to mitigate any potential effects on the historic property. Under any alternative, any adverse effects to significant archaeological resources would be mitigated pursuant to Section 106 and its implementing regulations.

3.10.2.1 Alternative A – No Action Alternative

When developing the 2000 RLMP, TVA reviewed information and records about known cultural resources when determining the appropriate land use allocations, thereby protecting these resources. In the 2000 RLMP (TVA 2000b), parcels with significant cultural resources were allocated to Zone 3 or Zone 4 management, because surface disturbing activities would generally not be permissible in these zones. Zone 3 parcels include approximately 642.6 acres, or 13.7 percent of the allocated lands on Tims Ford Reservoir, while Zone 4 properties include approximately 2,462.8 acres, or 52.6 percent of the total. Under Alternative A, these allocations would not change.

For all allocations, site-specific activities proposed in the future would continue to be subject to review under 36 CFR 800 and approved, approved with conditions, or denied according to the presence/absence of historic properties and the potential of the activity to adversely affect historic properties. If a historic property cannot be avoided or effects cannot be minimized and mitigation is required, appropriate archaeological investigation would be necessary, and potentially impacted resources would be mitigated in consultation with the applicable SHPO, federally recognized tribes, and other consulting parties. All projects and cultural resources would be subject to the regulatory requirements of the NHPA.

3.10.2.2 Alternative B – Proposed RLMP Alternative (Preferred)

Under Alternative B, TVA would continue to protect known cultural resources. In the 2000 RLMP, parcels with sensitive resources were allocated to Zone 3 and Zone 4. Zone 3 is an allocation offering the highest level of protection for cultural resources and Zone 4 is a similar type of land management. Under Alternative B, the lands allocated to Zones 3 and 4 would decrease by 57.9 acres to 3,047.5 acres, or 65 percent of lands allocated to Zones 3 and 4. The reduction is due primarily to the zone reallocations to reflect existing road and utility ROWs to Zone 2.

The proposed allocation changes under Alternative B include about 60 previously recorded archaeological sites known on 80 TVA parcels, and there are three previously recorded archaeological sites recommended for NRHP listing. The proposed changes include allocation from Zone 4 to Zone 3 due to the presence of sensitive resources, to Zone 6 to support the maintenance and possible expansion of existing public access area with limited facilities, and to Zone 7 where there is a history of water-use facility permitting and it is immediately adjacent to another Zone 7 parcel. More details are described below:

- There are portions of three parcels with low to medium probability for archaeological resources currently allocated as Zone 3 that would change allocation under Alternative B. One parcel (22.8 acres) would be reallocated to Zone 2 to reflect existing road and transmission line ROWs. The two other parcels (47.2 acres and 223.9 acres) are proposed to change to Zone 4 which would be a similar type of management and has less potential for development than other land use allocations.
- There are portions of three parcels with NRHP-eligible resources that are currently allocated as Zone 4 that would change under Alternative B. One parcel (49.4 acres) would change from Zone 4 to Zone 3, which is an allocation offering the highest level of protection for cultural resources. Portions of four parcels (9.4 total acres) would change to Zone 6 to support existing uses and maintenance and possible expansion of public access areas with limited facilities. One small portion (0.1 acre) would be added to an adjacent Zone 7 parcel consistent with existing land use and the permitting history. There are also portions of 18 other parcels with low to medium probability for archaeological resources proposed for allocation changes from Zone 4 to Zone 2 to reflect existing infrastructure, Zone 6 and Zone 7. Both Zones 6 and 7 have an increased potential for development.
- There are portions of two parcels with low to medium probability for archaeological resources currently allocated as Zone 5 proposed for allocation changes to Zone 2 (2.5 acres) for existing TWRA operations and to Zone 4 (2.1 acres) to reflect a change in the back-lying land use.
- There are portions of seven parcels with low to medium probability for archaeological resources currently allocated as Zone 6 proposed for reallocation. Under Alternative B, TVA would reallocate these small portions totaling 7.1 acres to Zone 2 to support existing road and transmission line ROWs, including a portion of the State and local parks.

- There are portions of five parcels with low to medium probability for archaeological resources currently allocated as Zone 7 that would be reallocated. Under Alternative B, TVA would reallocate these parcels to Zone 2 (1.8 acres), Zone 4 (0.3 acre), or Zone 6 (0.2 acre). The portion proposed for Zone 4 would offer greater protection of the cultural sites than the current allocation under Alternative A. The portions proposed as Zone 2 would support existing road and utility ROWs and the Zone 6 allocation change would support an existing boat-launching ramp.
- There are portions of five parcels with low to medium probability for archaeological resources currently allocated as Zone 8 that would be reallocated. Under Alternative B, TVA would reallocate these parcels to Zone 2, Zone 4 or Zone 6 (Developed Recreation).
- There are portions of three parcels with low to medium probability for archaeological resources that are currently allocated. Under Alternative B, TVA would reallocate these parcels to Zone 2 (0.1 acre) for existing road ROW (1.8 acres), Zone 4 (0.7 acre) that is behind a road where there is no water access, and Zone 6 (2.2 acres) for an existing commercial marina and campground.

In summary, the 60 previously recorded sites would be managed under Alternative B on 80 different TVA parcels. A majority of allocation changes (about 66 percent) under Alternative B would result in management that is similar or more protective of these cultural sites when compared to the draft 2025 RLMP (Alternative A), while about 33 percent of allocation changes would increase the potential for disturbance or development of parcels with cultural sites (although some of these changes were made to reflect existing ROW and infrastructure, thereby resulting in no change). The three unallocated sites would be allocated as Zone 2, Zone 4 and Zone 6.

Allocation changes during the planning process would not result in effects until such time as activities are proposed for parcels. As under Alternative A, regardless of the zone allocation given to a parcel under the RLMP, TVA Cultural Resources staff would review any proposed site-specific development of a parcel to determine whether the development would impact known and/or unknown historic properties. If the resources cannot be avoided, then further investigations would be required to determine the resources' eligibility for inclusion in the NRHP.

For any proposed undertaking, TVA would take necessary steps to ensure compliance with the regulatory requirements under NHPA and consider the development's effects as they are proposed. TVA will review each individual undertaking under the Section 106 Programmatic Agreement.

3.10.2.3 Alternative C – Modified Zone 8 (Conservation Partnership)

In comparison to Alternative B, implementation of Alternative C would result in a small increase (34.7 acres, less than 1 percent) in lands allocated to Zone 3 and Zone 4. Lands allocated to Zone 2, Zone 5, Zone 6, Zone 7 and Zone 8 would decrease by 34.5 acres compared to Alternative B. The small increase in land allocated to Zones 3 and 4 and the decrease in allocations to other zones would result in minor beneficial impacts to cultural resources because there is a lower potential for land disturbance.

3.10.2.4 Alternative D – Individual Water-Use Facilities with Restrictions

In comparison to Alternative B, implementation of Alternative D would result in no change in parcels allocated to Zone 4. There would be slightly less Zone 3 acreage (0.2 percent and 9.3 acres) than Alternative B due to an expansion of Parcel 136 proposed for Zone 6. Prior to approving any site-specific activities on the parcel, TVA would conduct a site-specific environmental review to determine the effects of the proposed use(s) to address potential effects, as appropriate.

3.11. Managed and Natural Areas

3.11.1 Affected Environment

Managed areas include lands held in public ownership that are managed by an entity (e.g., TVA, U.S. Department of Agriculture, U.S. Forest Service, State of Tennessee) to protect and maintain certain ecological and/or recreational features. Natural areas include ecologically significant sites; federal, state, or local park lands; national or state forests; wilderness areas; scenic areas; wildlife management areas; recreational areas; greenways; trails; Nationwide Rivers Inventory (NRI) streams; and wild and scenic rivers. Ecologically significant sites are either tracts of privately owned land that are recognized by resource biologists as having significant environmental resources or identified tracts on TVA-managed lands that are ecologically significant but not specifically managed by TVA's Natural Areas program.

TVA currently retains approximately 4,685.5 acres of reservoir land around Tims Ford Reservoir. The draft 2025 RLMP is proposing to reallocate approximately 560.2 acres of this land, or approximately 12 percent. A review of the TVA Regional Natural Heritage database (TVA 2025) identified the 18 managed and natural areas within 3 miles of the TVA reservoir lands on Tims Ford Reservoir are included as Table 3.11.

Table 3.11 Natural Areas Within 3 Miles of Tims Ford Reservoir Land

Natural Area	Acres	County	Distance
AEDC Wildlife Management Area; Woods Reservoir	39,289.4	Multiple	0.6 mile
Cumberland Springs Former Wildlife Management Area Privately Owned	7,003.6	Multiple	1.9 miles
Double Powerline Barrens	293.6	Multiple	2.9 miles
Elk River	276.9	Multiple	0.007 mile
Franklin County Park	13.4	Franklin	2.2 miles
Highland Rim Forest Experiment Station	870.7	Franklin	1.9 miles
Jack Daniel Cave	1.6	Moore	2.7 miles
Mingo Swamp/Tennessee Potential National Natural Landmark/PPS	743.0	Franklin	1.1 miles
Overby Trail Wetland	173.9	Multiple	1.7 miles
Owl Hollow Wildlife Management Area	2,362.8	Franklin	0 mile
Pennington Cave	4.4		0 mile

Natural Area	Acres	County	Distance
Conservation Easement - Land Trust For Tennessee	196.7	Franklin	1.1 miles
Stewart's Swamp/Cowan Marsh TWRA Wildlife Management Area	91.5	Franklin	2.9 miles
Tims Ford State Rustic Park	2,974.5	Multiple	0 mile
The Land Trust for Tennessee Easement	168.9	Moore	0.6 mile
Wiseman Cave	25.9	Franklin	0 mile

Of all natural areas on Tims Ford Reservoir within 3 miles of TVA-managed lands, there are five natural areas where the property edges slightly intersect with TVA parcels that are proposed to be reallocated from a land use zone with little development potential (Zone 3 – Sensitive Resource Management and Zone 4 – Natural Resource Conservation) to a zone with greater development potential (Zone 2 – Project Operations, Zone 5 - Industrial, Zone 6 – Developed Recreation and Zone 7 – Shoreline Access). See Table 3.12

Table 3.12 Natural Areas that Intersect Tims Ford Reservoir Land

Natural Area	Acres	County	Distance
Elk River	276.9	Multiple	0.007 mile
Owl Hollow Wildlife Management Area	2,362.8	Franklin	0 mile
Tims Ford State Rustic Park	2,974.5	Multiple	0 mile
Wiseman Cave	25.9	Franklin	0 mile

Notably, two of these natural areas are Tims Ford Reservoir and the Elk River, thus, the reservoir itself is considered a Natural Area under TVA's Natural Areas program.

3.11.2 Environmental Effects

Under the proposed alternatives, between 7.6 to 7.8 percent and 57.2 to 58.0 percent of Tims Ford Reservoir property is proposed for allocation to Zones 3 and 4 respectively. Nearly three-fourths of TVA reservoir lands (approximately 222,000 acres of 293,000 acres) have management objectives that support and enhance the character of natural areas. Natural areas situated on property proposed for allocation to Zones 3 and 4 are managed for the protection and enhancement of resources and are not subject to adverse impacts; therefore, properties located within these zones would remain "natural" and not be converted to other land uses, preserving the natural areas. Potential adverse impacts to a parcel and therefore, natural areas within or adjacent to the TVA parcel, could result from TVA proposed allocation changes from a zone with little development potential or fewer uses (Zones 3 and 4) to a zone with greater development potential or more uses (Zones 2, 5, 6 or 7).

3.11.2.1 Alternative A – No Action Alternative

Under the No Action Alternative, there would be no impacts to natural areas from the 2025 draft RLMP and because there would not be any changes to parcel land use allocations. TVA would continue to manage these parcels consistent with allocations in the 2000 RLMP.

3.11.2.2 Alternative B – Proposed RLMP Alternative (Preferred)

There are two natural areas within parcels that are proposed to be reallocated from an undeveloped land use zone (Zones 3 and 4) to a zone with development potential (Zones 2, 5, 6, and 7), as summarized below. However, most of the proposed allocation changes reflect land use changes that have already taken place. See Table 3.13 for the list of parcels that would be allocated to a more intensive Table 3.11 provides a list of parcels that would be allocated to a more intensive land use under Alternative B that would also be intersected by a natural area.

Table 3.13 Natural Areas that Intersect Parcels that would be Reallocated to More Intensive Uses (Alternative B)

2000 RLMP Parcels	2000 Zone Allocation	Description of Allocation Change	Draft 2025 RLMP Parcels	Managed/Natural Area Proximity
Owl Hollow Wildlife Management Area				
Parcel 39 45.8 acres	Zone 4	Zone 4 to Zone 7 to correct an administrative error from the 2000 RLMP	Parcel 55 8.1 acres	Slight overlap at edge of parcel boundary
Parcel 40 82.0 acres	Zone 4	Zone 4 to Zone 2 (portion) for existing road and transmission line ROWs	Parcel 60 0.7 acre	Slight overlap at edge of parcel boundaries
Tims Ford State Park				
Parcel 22 44.3 acres	Zone 4	Zone 4 to Zone 2 portion for existing road ROWs	Parcel 28 1.5 acres	Within state park; adjacent to edge
Parcel 62 3.7 acres	Zone 4	Zone 4 to Zone 6 (portion) to support existing backlying public recreation use (Estill Springs City Park)	Parcel 95 5.0 acres	Within state park; overlap
Parcel 86 9.7 acres & Unallocated area	Zone 4	Zone 4 to Zone 2 (portion) for existing road and transmission line ROWs	Parcel 123 1.2 acres	Within state park; overlap
Parcel 77 59.3 acres	Zone 4	Zone 4 to Zone 2 (portion) for existing road and transmission line ROWs	Parcel 149 11.8 acres	Within state park ; overlap
Parcel 8 186.5 acres	Zone 4	Zone 4 to Zone 2 (portion) for existing road and transmission line ROWs	Parcel 11 7.9 acres	Within state park ; overlap
Parcel 28 2,474.9 acres	Zone 4	Zone 4 to Zone 2 (portion) for existing road and transmission line ROWs	Parcel 44 0.6 acre	Within state park; new Parcel 45 overlaps; new Parcel 44 adjacent to
Parcel 45 0.3 acre	Zone 4	Zone 4 to Zone 7 portion added to adjacent parcel	Parcel 65 5.8 acres	Adjacent to state park

TVA also considered whether parcels adjacent to natural areas would be affected by a reallocation under Alternative B. In four instances, allocations would change for parcels that are adjacent to natural areas. On 11 parcels, the proposed allocation changes are to reflect existing easement rights, existing road ROWs or existing conditions. Almost all reallocations where there is an adjacent natural area reflect existing easement rights, existing road ROWs, or an existing land use; these are reallocations unlikely to result in any environmental changes compared to the 2000 RLMP (Alternative A).

Generally, the proposed reallocations most likely to affect natural areas, whether those that intersect or are adjacent to parcels proposed for reallocation, would result in negligible to minor effects to natural areas on Tims Ford Reservoir. Proposed changes to parcel allocations intersecting or adjacent to natural areas would affect a very small number of areas. As noted above, almost all of the proposed allocation changes reflect existing land uses and changes that have already taken place.

3.11.2.3 Alternative C – Modified Zone 8 (Conservation Partnership)

The potential effects to natural areas under Alternative C would be substantially the same as Alternative B, except more parcels (34.4 acres) would be allocated as Zone 4 than Alternative B. Like under Alternative B, there would be no additional adverse effects to natural areas under Alternative C.

3.11.2.4 Alternative D – Individual Water-Use Facilities with Restrictions

The potential effects to natural areas under Alternative D would be substantially the same as Alternative B, except one 9.3-acre parcel (Parcel 136) would be allocated as Zone 6 instead of Zone 3. Like Alternative B, no additional adverse effects to natural areas are expected under Alternative C.

3.12. Visual Resources

3.12.1 Affected Environment

Visual Resources provide a review and classification of the visual attributes of existing scenery, along with the anticipated attributes resulting from the proposed action. The classification criteria used in this analysis are adapted from a scenic management system developed by the U.S. Forest Service and integrated with planning methods used by TVA (U.S. Forest Service 1995). This analysis was included in the 2000 EIS and is incorporated by reference.

The visual landscape of an area is formed by physical, biological and man-made features that combine to influence both landscape identifiability and uniqueness. Scenic resources within a landscape are evaluated based on a number of factors that include scenic attractiveness, integrity and visibility. Scenic attractiveness is a measure of scenic quality based on human perceptions of intrinsic beauty as expressed in the forms, colors, textures and visual composition of each landscape. Scenic integrity is a measure of scenic importance based on the degree of visual unity and wholeness of the natural landscape character. The varied combinations of natural features and human alterations both shape landscape character and help define their scenic importance. The subjective perceptions of

a landscape's aesthetic quality and sense of place is dependent on where and how it is viewed.

Scenic visibility of a landscape may be described in terms of three distance contexts: (1)foreground, (2) middleground and (3) background. In the foreground, an area within 0.5 mile of the observer, individual details of specific objects are important and easily distinguished. In the middleground, from 0.5 to 4 miles from the observer, object characteristics are distinguishable but their details are weak and they tend to merge into larger patterns. In the distant part of the landscape, the background, details and colors of objects are not normally discernible unless they are especially large, standing alone, or have a substantial color contrast. In this review, the background is measured as 4 to 10 miles from the observer. Visual and aesthetic impacts associated with a particular action may occur as a result of the introduction of a feature that is not consistent with the existing viewshed. Consequently, the character of an existing site is an important factor in evaluating potential visual impacts.

Tims Ford Reservoir includes a variety of diverse landscapes and natural features, including rivers, floodplains, islands, wetlands, and forests. Since the scenic features of the landscape around the reservoir are not limited by parcel boundaries, the aesthetics of the landscape extend across public and private land alike and combine with the adjacent land uses. The reservoir land has a mix of new homes, roadways, and lake-oriented recreational use. However, despite the changes that have occurred since impoundment of the Elk River, the valley-to-mountain setting is the valued, scenic resource that is still evident and dominant.

The reservoir offers extensive water-based recreation opportunities, making the view from the water especially significant. Most creek embayments are broadly open at the mouth, while some wind over a greater distance to their headwaters.

Among the scenic resources of the reservoir, the water body itself is the most distinct and outstanding aesthetic feature. The horizontal surface provides visual balance and contrast to the islands and wooded hillsides. The reservoir curves around ridges and bends changing views periodically seen from the water while also linking the other landscape features together. To most observers, views across the water are generally satisfying and peaceful.

The scattered islands on Tims Ford Reservoir typically provide scenic accents and visual reference points throughout the reservoir and commonly serve as visual buffers for less desirable views. They may also provide a pleasing foreground frame for the distant shoreline or background. Other important scenic features include the secluded coves and steep wooded ridges that occur around the reservoir. The isolated coves with wooded shoreline provide relatively private locations for dispersed recreational activities. Elevation changes along some stretches of shoreline provide a dramatic contrast to the surrounding reservoir and gently sloping countryside, particularly when they are viewed from background distances.

Most shorelines of the reservoir appear natural. Slopes and ridgelines seen from the reservoir are generally heavily vegetated with mature hardwood and evergreen trees that

provide positive visual contrast to the reservoirs. On portions of the reservoir, there is development in the foreground distances.

Various combinations of development and land use patterns, that are present in the viewed landscapes along the shoreline of the reservoir, contribute to the overall visual character of the study area. Residential areas and water-related facilities that include docks, boathouses, stairways, and shoreline protection structures are becoming more common and reduce scenic integrity.

There are planned residential developments that would have associated community water-use facilities. The use of community water-use facilities centralizes shoreline development in groupings rather than having individual water-use facilities scattered along the shoreline in front of each residence. It is commonplace to see boaters idling along the shoreline admiring these lakefront homesites. Some scenic value exists for the shoreline viewer in viewing a passing boat or watching a fisherman sit quietly in an adjacent cove. However, boat traffic and personal watercraft operation may greatly decrease the aesthetic value associated with the reservoir.

The Tims Ford Reservoir Dam structure contrasts visually with the bordering lands. The structure appears predominately industrial near the dam and its associated features. Transmission structures, including towers and lines and fossil and nuclear plant structures can generally be seen up to middle-ground distances, depending on topography and viewer position. Farther away, closer to the borders on all sides, the landscape becomes more natural with fewer human alterations. Residents and motorists along local roads have views up to middle-ground distances of the dam, depending on seasonal variations of vegetation and atmospheric conditions.

Areas of the reservoir which hold the greatest scenic value are those not yet developed, those that are a homeowner’s predominant view and the distinctive features in the landscape that are seen by the lake user and adjacent highway traveler. Undeveloped coves which allow the boater anchorage in calm water, scenic bluffs and steep shoreline exhibiting rock outcroppings and extensive vegetative growth are held by the public as the most valuable of the reservoir’s scenic resources.

3.12.2 Environmental Effects

The scenic value or quality of visual resources commonly is based on human perceptions of intrinsic beauty as expressed in the forms, colors, textures, and visual composition seen in each landscape. Human perceptions of shoreline development no doubt varies widely among users and recreationists depending on their preferences and expectations. The assessment of scenic quality is often evaluated using scenic attractiveness (e.g., outstanding natural features, scenic variety, seasonal change, and strategic location), scenic integrity (e.g., visual unity and wholeness of the natural landscape character), human sensitivity (e.g., the expressed concern of people for the scenic qualities of the study area), and viewing distance (i.e., how far an area can be seen by observers and the degree of visible detail). The impacts of the alternatives on visual resources were qualitatively evaluated considering the scenic quality characteristics described above. These measures help identify changes in visual character based on commonly held

perceptions of landscape beauty and the aesthetic sense of place. Scenic Value Class is determined by combining the levels of scenic attractiveness, scenic integrity, and visibility.

The scenic character of wildlife management areas, islands, and wetlands would be preserved under both alternatives. This would preserve the scenic accent, attractive contrast, and visual richness these resources contribute to reservoir vistas. Several areas of the reservoirs would benefit as major sections of the riverine upper reservoirs would be protected or screened from further development. This would preserve the variety of natural features including the river, forest-covered mountainside along the banks, islands, and ridge landforms. The combined contributions of these attractive features would help sustain the scenic landscape character and aesthetically pleasing sense of place.

Because TVA retains the fee interest in land below the 895-foot contour on 309 miles of Tims Ford Reservoir shoreland, TVA land management decisions influence the scenic character of the reservoir. Scenic values are considered as part of the land planning process, which helps enhance conservation and protection of scenic resources. For instance, parcels having distinctive and valuable visual characteristics such as islands, rock bluffs, steep and wooded ridges, wetlands, and flowing shallow water areas were typically allocated to either Zone 3 (Sensitive Resource Management) or Zone 4 (Natural Resource Conservation). These Zone 3 and 4 lands typically provide valuable protective screening and important scenic buffers as they are undeveloped.

Lands having the greatest scenic qualities are often the most desirable for public preservation. Frequently, however, they are also the most sought-after for commercial and residential development. Under both alternatives, TVA would continue to conduct environmental reviews, including evaluation for potential visual impacts, prior to the approval of any proposed development on public land. These reviews may prevent the most serious scenic disruptions or loss of visual resources by requiring mitigation measures to reduce potentially significant visual impacts.

3.12.2.1 Alternative A – No Action Alternative

Under the No Action Alternative, the allocation of selected lands based upon visual resource conservation concerns would continue to be based on the current RLMP developed in 2000. While the RLMP may not fully incorporate the current aesthetic resources within the reservoir that may have changed since 2000, the continued management by TVA of lands on Tims Ford Reservoir is unlikely to result in noticeable changes to visual resources of the reservoir.

Where TVA has custody of the land, future actions of TVA would be evaluated to determine potential visual effects prior to land use approval, thereby preventing serious visual disruptions or loss of scenic resources. Approval of some activities may also require avoidance or mitigation measures that reduce visual impacts, for example in the case of neighboring historic properties. Activities could also occur on lands adjacent to those owned by TVA that could change the aesthetic quality within the reservoir. There are no known county or local ordinances to protect aesthetics near Tims Ford Reservoir.

3.12.2.2 Alternative B – Proposed RLMP Alternative (Preferred)

Under Alternative B, there would be minor changes in scenic resources on Tims Ford Reservoir. TVA would change allocations of approximately 560.2 acres of land (about 12 percent of TVA-managed lands on the reservoir). While the effects of Alternative B to visual resources would be limited to these parcels, many of the proposed changes are proposed in order for the RLMP to reflect existing land uses. For instance, while there would be an addition of 87.1 acres of land allocated Zone 2 (Project Operations), most of these areas are allocated due to existing road and utility ROWs; allocation changes to reflect an existing use would have no effect to visual resources.

There would be a decrease in lands allocated to Zone 3 under Alternative B (276.3 acres) due to a lack of known sensitive resources currently documented. However, most of the Zone 3 property has been reallocated to Zone 4, which also provides protection of scenic resources. Thus, the Zone 3 and 4 allocation changes would result in nominal to minor localized changes in visual resources.

Under Alternative B, there would be less land allocated as Zone 5 (Industrial) but there would be a small increase in land allocated as Zone 6 (Developed Recreation). Reduced industrial property from three parcels (8.7 acres) to one parcel (0.2 acre would) result in beneficial impacts on visual resources. There would be a small increase (9.6 acres) with one additional parcel allocated to Zone 6 under Alternative B. There would be an increase in Zone 7 acreage. The increase reflects the elimination of 66.3 acres of shoreline property allocated as Zone 8 (Conservation Partnership). Of those 66.3 acres, 87 percent (57.6 acres would be reallocated as Zone 7) which would be a negligible change in land use because Zone 7 use is effectively the same as Zone 8. There is increased potential for activities that may diminish scenic values in this zone; thus the Zone 7 allocation changes would result in minor localized changes in visual resources. Overall, there would be minor effects on visual resources under Alternative B, although localized effects may be moderate, where new land use allocations allow for development.

3.12.2.3 Alternative C – Modified Zone 8 (Conservation Partnership)

The potential effects to visual resources under Alternative C would be similar to Alternative B, except more parcels (34.7 acres) would be allocated as Zone 3 and Zone 4 than Alternative B.

There would be minor changes to allocations under this alternative compared to Alternative B. The percentage of lands allocated to Zones 2, 5 and 6 would be the same for Alternatives B and C. Zone 7 and Zone 8 acreage would be reduced by Under Alternative C, there would be more acres allocated under Zone 4 than under Alternative B, which represents a negligible beneficial effect for visual resources. While the effects of Alternative C would be similar to Alternative B, there would be slightly fewer impacts to visual resources under Alternative C than Alternative B. Like under Alternative B, there would be no additional adverse effects to visual resources under Alternative C.

3.12.2.4 Alternative D - Individual Water-Use Facilities with Restrictions

Under Alternative D, one more parcel is proposed to be reallocated for Zone 6 than under Alternative B. In comparison to Alternative B, implementation of Alternative D would result

in no change in parcels allocated to Zone 4. There would be slightly less Zone 3 acreage (0.2 percent and 9.3 acres) than Alternative B due to an expansion of Parcel 136 proposed for Zone 6. Because the potential land use change (e.g., a small public park versus a public greenway) would be minor, the small increase in land allocated to Zone 6 would have no adverse impacts on the visual resources of Tims Ford Reservoir.

3.13. Socioeconomics

3.13.1 Affected Environment

Tims Ford Reservoir lies in Franklin and Moore counties in Middle Tennessee, south of Tullahoma. The 2024 populations of these two counties are estimated by the U.S. Census Bureau (USCB) to be 51,910, a 6.6 percent increase over the 2010 population of 48,696 (USBC 2024). This growth rate is slower than that of the state in that range, which is estimated to have grown by 14 percent. Over the 40-year period between 1980 and 2020, the population of the two counties increased by 35 percent (USCB 2020).

The population for the two counties is projected to reach 53,489 by 2040, a modest increase of 8.7 percent over 20 years (UTK Boyd Center 2024b). The continued growth of the population within the region is expected to lead to continued increases in demand for residential access to the reservoir.

In 2024, the civilian labor force of the two-county area was over 21,000, as shown in Table 3.14. Of those, 794 were unemployed, with an unemployment rate of 7.2 percent. The unemployment rates of Franklin and Moore counties were similar at 3.8 and 3.4 percent respectively. The unemployment rate for the area was less than the national rate, but greater than the rate for the State (Tennessee Department of Labor and Workforce Development (TN LWD) 2024).

Table 3.14 Tims Ford Reservoir Area, Labor Force Data, 2024 Annual Average

County	Civilian Labor Force	Employment	Unemployment	Unemployment Rate
Franklin	18,379	17,683	696	3.8%
Moore	2,866	2,768	98	3.4%
Area Total	**21,245**	**20,451**	**794**	**3.7%**
Tennessee	**3,420,373**	**3,303,023**	**117,350**	**3.4%**
United States	**168,11,000**	**161,94,000**	**7,200,000**	**4.2%**

Source: U.S. Census, (USCB QuickFacts 2024); U.S. Bureau of Labor Statistics (2024); (TN LWD 2024).

Low-income individuals are those whose annual household income is less than two times the poverty level. The nationwide poverty level is determined annually by the USCB and varies by the size of family and number of related children under 18 years of age. The

threshold for an individual under the age of 65 is an annual income of $15,650, and for a family of four it is an annual household income of $32,150 (U.S. Department of Health and Human Services 2025). Populations having an income level from one to two times the poverty level also have worse health overall than those with higher incomes (Centers for Disease Control and Prevention 2013).

Income levels within the area vary, with residents of Franklin County more likely to be in poverty and have lower income when compared to Moore County to the rest of Tennessee and the U.S. (Table 3.15).

Table 3.15 Tims Ford Reservoir Area, Population Characteristics, Income and Poverty

	Franklin	Moore	Tennessee	United States
Per capita income in past 12 months (in 2023 dollars), 2019-2023	$32,926	$37,193	$37,866	$43,289
Persons in poverty, percent	17.1	15.2	14.0	11.1
Population per square mile, 2020	77.1	50.0	167.6	93.8
White	91.9	94.1	78.4	75.3
Black or African American	4.9	2.4	16.5	13.7
American Indian or Native Alaskan	0.6	0.5	0.6	1.3
Asian	1.6	1.6	2.1	6.4
Native Hawaiian or Pacific Island	0.1	0.2	0.1	0.3
2 or more races	1.4	1.4	2.3	3.1
Hispanic or Latino	3.8	2.1	7.5	19.5

Source: USCB (2020); USCB American Community Survey (2023)

Income levels within the area vary, with residents of Franklin County more likely to be in poverty and have lower incomes when compared to Moore County, to the rest of Tennessee and the United States (Table 3.15).

Minority or low-income populations exist if either of the following conditions is met:

- The minority/low-income population of the impacted area exceeds 50 percent of the total population.

- The ratio of minority/low-income population is meaningfully greater (i.e., greater than or equal to 20 percent) than the minority population percentage in the general population or other appropriate unit of geographic analysis (i.e., the state level).

The southwestern region of the Tims Ford Reservoir has the highest concentration of lower-income residents. Ten total block groups among the two counties meet the criteria as low-income communities (Figure 3-2).

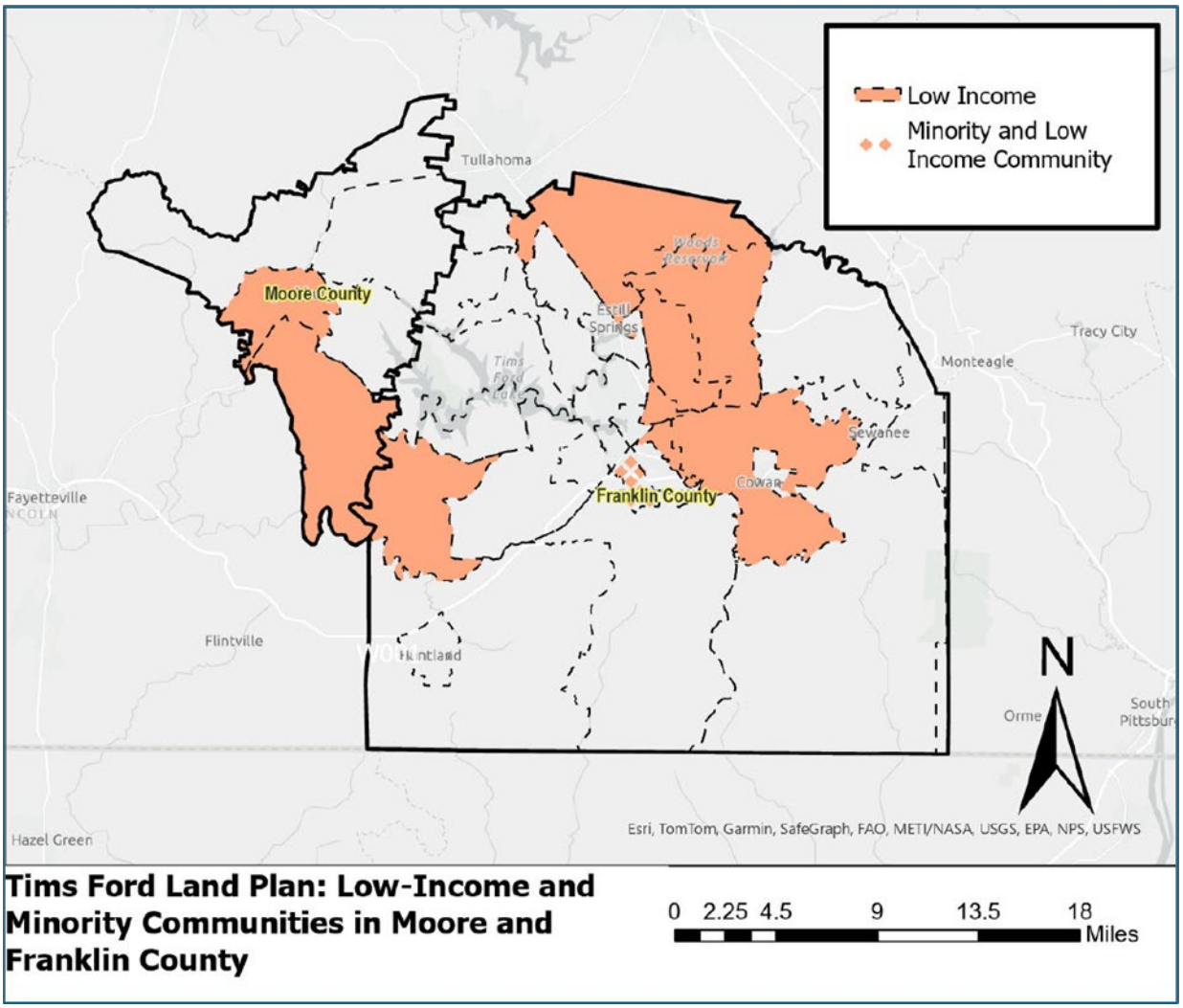

Figure 3-2 Tims Ford Reservoir Area, Low-Income and Minority Communities

Providing accessible natural resources and recreational opportunities for the people of the Tennessee Valley is a key component of TVA's stewardship mission. Additionally, creating more direct access for TVA assets through ROW management of TVA land for recreational use as well as for preservation of cultural and natural resources contributes to the local economy through promotion of tourism. TVA reservoirs and the land surrounding them support a variety of recreational activities including camping, hiking, fishing, swimming and boating. These opportunities attract millions of visitors each year which has a positive direct and indirect impact on the local economies around the reservoirs (TVA 2016). Positive direct impacts include expenditures at marinas, hotels and other businesses. Indirect impacts of tourism affect most sectors of the economy including secondary sales, income and employment within the region.

3.13.2 Environmental Effects

Potential socioeconomic impacts of the draft 2025 RLMP would be associated with direct effects of jobs created by development on TVA-managed lands that would support future development (e.g., development of industrial facilities, campgrounds, marinas, etc.). Effects

to socioeconomics could also occur because of changes in developed and dispersed recreation opportunities, as well as changes in the overall attractiveness of the area as a place to live or visit. Additionally, there could be indirect effects associated with population growth in response to new development and changes in tax revenues, employment and property values.

The TVA Land Policy clarifies the availability of TVA-managed lands for industrial, residential, and recreational uses, which in turn determines the potential for development. However, future industrial, commercial, and residential development is likely to occur in the region on private land, regardless of the uses and availability of TVA public lands.

3.13.2.1 Alternative A - No Action Alternative

Under Alternative A, TVA would continue to manage its public lands on Tims Ford Reservoir according to the 2000 RLMP and subsequent allocation changes since the 2000 RLMP was completed. All parcels would continue to be managed by TVA according to the allocations of the 2000 RLMP and subsequent approved allocation changes that have taken place since the 2000 RLMP was completed. The allocations with the most opportunities to impact socioeconomics are Zones 5, 6, 7 and 8 (Industrial, Developed Recreation, Shoreline Access and Conservation Partnership) Under Alternative A, approximately 1,168.0 acres (24.9 percent) are allocated as Zones 5, 6, 7, and 8.

Parcels allocated to Zones 3 and 4 (Sensitive Resource Management and Natural Resource Conservation) (3,105.4 acres and 66 percent) would have a negligible impact to socioeconomics resulting from potential ecotourism. There would continue to be large amounts of TVA-managed land available to the public and no impacts that would measurably affect minorities or low-income residents would occur. The Zone 2 allocation would have no impact to socioeconomics. Consideration of the No Action Alternative is required under NEPA and regulations promulgated by TVA to implement NEPA; the analysis of this alternative serves as a baseline for comparing the other action alternatives and would not have a discernible impact on socioeconomics.

3.13.2.2 Alternative B - Proposed RLMP Alternative (Preferred)

Like Alternative A, the zone allocations that would likely have the most opportunities to impact socioeconomics are Zones 5, 6, 7 and 8. Under Alternative B those zones combined would decrease by 7.6 acres compared to the No Action Alternative. Thus, the Zone 5, 6, 7 and 8 allocation changes would result in nominal changes in socioeconomic outcomes.

There would be a minor decrease in lands allocated to Zone 3 and 4 by 59.7 acres (276.3 acres). Under this alternative, there would continue to be large amounts of land available to the public and there would be no measurable impacts to minorities or low-income residents.

3.13.2.3 Alternative C - Modified Zone 8 (Conservation Partnership)

Socioeconomic impacts associated with Alternative C would be similar to those of Alternatives A and B. Under Alternative C, Zones 5, 6, 7 and 8 combined would decrease by 34.5 acres compared to Alternative B. The Zone 8 allocation would remain, and the qualification criteria would be modified for Zones 7 and 8. Approximately 0.5 percent (24.3 acres) of TVA-managed land around Tims Ford Reservoir would be allocated to Zone 8.

Similar to Alternative B, the Zone 5, 6, 7 and 8 allocation changes would result in nominal changes in socioeconomic outcomes

There would be a minor decrease in lands allocated to Zone 3 and 4 by 34.7 acres compared to Alternative B, but there would continue to be large amounts of land available to the public. There would be no measurable impacts under this alternative to minorities or low-income residents.

3.13.2.4 Alternative D - Individual Water-Use Facilities with Restrictions

Alternative D would be substantially the same as Alternative B except for a minor shift in acreage from Zone 3 to Zone 6 due to an expansion of Parcel 136 proposed for Zone 6. This could impact socioeconomics by providing additional recreation opportunities and potentially adding a minor economic value to the area due to the expansion of an existing developed recreation facility.

There would be a minor decrease in lands allocated to Zone 3 and 4 by 44.0 acres compared to Alternative B. Under this alternative, there would continue to be large amounts of land available to the public, and there would be no impacts under this alternative that would measurably impact minorities or low-income residents.

In summary, among all of the alternatives, there is potential for socioeconomic benefits from all communities in the area around Tims Ford Reservoir. There would continue to be large amounts of TVA-managed land available to the public and potential impacts to minorities or low-income residents would be minimal or absent because of the minor changes to land use allocations.

3.14. Reasonably Foreseeable Future Impacts

Future impacts can result not only from possible actions of TVA in accordance with the proposed reallocation of lands under Alternative A, B, or C, but also from those of other agencies and the public. However, the assessment of potential impacts from land use allocations and allocation changes is inherent in the analyses performed for each of the resource sections considered in Chapter 3. Therefore, this analysis considers the effects of potential future actions by others based on general trends that are anticipated within the Tims Ford Reservoir area and the counties it is located in.

Anticipated trends within the region surrounding Tims Ford Reservoir include increased demand for developed and dispersed recreation opportunities, and further development of rural areas. It is expected that federal, state and local agencies as well as some conservation organizations will continue efforts to conserve natural resources while providing dispersed recreation opportunities and selected areas for accommodating developed recreation. On Tims Ford Reservoir, a large percentage of reservoir lands will continue to be allocated to Zones 3 and 4 (Sensitive Resource Management and Natural Resource Conservation) and will be managed to protect and maintain their natural character. In addition, the construction of recreation amenities to accommodate dispersed and developed recreation would be subject to site specific environmental reviews and potential impacts associated with proposed actions would be subject to applicable BMPs

and other mitigation actions to minimize potential impacts on sensitive resources. For these reasons, impacts related to developed and dispersed recreation are expected to be minor.

Regional resource quality is influenced by the aggregate actions of all landowners within the Upper Elk River watershed. For instance, increasing demand for recreational opportunities, and the conversion of undeveloped land for residential and commercial purposes all lend themselves to a possible impact on water quality. State agency efforts would also include reducing regional impacts to water quality through the total maximum daily load, water quality certifications, and other water quality programs. Shoreline development spurred by the desire for more recreational activities can cause increased impervious surfaces, extensive clearing and grading, and possible point source pollution to the reservoir. Development in the watershed on non-TVA-managed lands also has the potential to influence water quality within Tims Ford Reservoir by increasing pollutants that drain onto TVA-managed lands.

However, regulatory guidelines from state and federal governments, municipal/local programs, and TVA's monitoring programs help mitigate the magnitude of possible impacts, resulting in an expectation that impacts to environmental resources would be minor. For instance, planned or foreseeable developments would also be subject to environmental regulation (Clean Water Act jurisdiction), ensuring current and foreseeable wetland impacts are considered, permitted, and/or mitigated in accordance with wetland regulations. This regulatory oversight ensures maintenance of the integrity of the aquatic environment, including wetlands, within the Upper Elk River watershed long term. Future effects are considered in the Clean Water Act permitting process to ensure individual wetland impacts do not collectively result in degradation to the nation's waters, including wetland resources. In addition, the Tims Ford RLMP has and would continue to emphasize the importance of wetland conservation and protection of wetland functions and values. Therefore, the proposed alternatives are not anticipated to contribute to detrimental future wetland impacts at the watershed scale. Similarly, floodplain development would be subject to floodplain regulations, as well as to TVA's Section 26a regulations and Flood Storage Loss Guideline and EO 11988, all of which serve to minimize adverse impacts to floodplains, residents, and property at the watershed scale.

New facilities with permitted discharges would be required to meet regulatory guidelines designed to prevent degradation of applicable water quality criteria, protection of endangered species, and preservation of cultural resources, among other factors. The efforts of federal and state water quality regulators, municipal/local programs, and others including TVA's own environmental monitoring programs would combine in an effort to offset threats to environmental resources from uncontrolled economic growth and development.

3.15. Unavoidable Adverse Environmental Effects

A decision on the proposed alternatives would not in itself result in unavoidable adverse effects because this is a programmatic planning document. Potential effects may occur later when future site-specific projects are proposed and implemented. Project-specific NEPA reviews will be conducted for proposed projects and unavoidable adverse effects would be determined at that time.

3.16. Relationship of Short-Term Uses and Long-Term Productivity

NEPA requires consideration of the "relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity" (40 CFR § 1502.16). For RLMPs, short-term uses generally are those that occur within a 10-year period, and long-term uses refer to later decades. Productivity is the capability of the land to provide beneficial outputs and values for future generations (e.g., industrial/business, recreational, or natural resource protection opportunities).

Generally, the reservoir land planning process results in few actions that adversely affect long-term productivity. Where practicable, TVA manages public lands for multiple uses, including recreation, natural resources, and protection of sensitive resources, for the goal of protecting these values for the public. Many of the proposed changes are to ensure that the allocation of land accurately reflects current land uses or property rights.

Commitments of the land for developed uses (e.g., residential, industrial, certain project operations facilities, and some forms of recreational development) have potential to decrease the productivity of land for agriculture, certain recreational activities, forestry, wildlife and other natural resources management actions. Because under Alternative D, more lands are proposed for potential development, that alternative has the greatest potential to result in adverse impacts to productivity of the land.

The allocation to Zone 3 (Sensitive Resource Management) and Zone 4 (Natural Resource Conservation) increases the likelihood of long-term productivity of those lands as these allocations provide the most protections from potential development. The percentage of lands allocated to Zone 3 and Zone 4 is approximately 66.2 percent under Alternative A, 65.0 percent under Alternative B, 65.7 percent under Alternative C and approximately 64.8 under Alternative D. The difference in alternatives is minor and the potential for conserving the long-term productivity of these Zone 3 and Zone 4 lands is negligible.

The scenic and recreational values of Tims Ford Reservoir are factors in attracting new residents and visitors to the region. The trends of minor increasing population and development are expected to continue. New jobs and income would be generated by spending activities of new residents and visitors, which may lead to enhanced long-term socioeconomic productivity. Allocation of lands to zones that enhance scenic and dispersed recreational uses (i.e., Zones 3 and 4) is greatest under Alternative A because those allocations did not include Zone 2 (Project Operations) for existing ROWs, while allocation to developed recreational uses is the same under Alternatives B and C and slightly more under Alternative D.

3.17. Irreversible and Irretrievable Commitments of Resources

An irreversible or irretrievable commitment of resources refers to impacts on or losses to resources that cannot be recovered or reversed. Irreversible is a term that describes the loss of future options and applies primarily to the effects of the use of nonrenewable resources that are only renewable over long periods of time. Irretrievable is a term that applies to the loss of production of renewable resources such as timber, agricultural land, or wildlife habitat because of the proposed action. The production lost is irretrievable, but the action is not irreversible. If the use changes, it is possible to resume production.

A decision on the proposed alternatives in this programmatic planning document would not in itself result in irreversible and irretrievable commitments. TVA reservoir land use zone allocations are not irreversible or irretrievable commitments as zone allocations can be changed. Potential effects may occur later when site-specific future projects are proposed and implemented. Project-specific NEPA reviews will be conducted for proposed projects and irreversible and irretrievable commitments will be determined at that time. For example, construction of project operation, industrial, and recreational facilities/structures would involve irreversible commitment of fuel, energy, and building material resources. Use of these resources could occur in the future under all three action alternatives. However, irreversible impacts would be potentially greater under Alternative D due to the larger total number of acres allocated to Zones 2, 5, and 6 (Project Operations, Industrial and Developed Recreation) as compared to the total acres allocated to those zones under Alternative A, Alternative B or Alternative C.

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CHAPTER 5 – LITERATURE CITED

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APPENDIX A – TVA LAND POLICY

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POLICY GOVERNING THE TENNESSEE VALLEY AUTHORITY'S RETENTION, DISPOSAL AND PLANNING OF INTERESTS IN REAL PROPERTY

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

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

As stewards of this critically important resource, TVA has a duty to manage its lands wisely for present and future generations. Accordingly, it is TVA's policy to manage its lands to protect the integrated operation of the TVA reservoir and power systems, to provide for appropriate public use and enjoyment of the reservoir system, and to provide for continuing economic growth in the Valley. Recognizing that historical land transfers have contributed substantially to meeting multipurpose objectives. Further, it is TVA's policy to preserve reservoir lands remaining under its control in public ownership except in those rare instances where the benefits to the public will be so significant that transferring lands from TVA control to private ownership or another public entity is justified. This policy is explicated below.

Reservoir Properties

Land Planning- TVA shall continue to develop reservoir land management plans for its reservoir properties with substantial public input and with approval of the TVA Board of Directors. The land use allocations will be determined with consideration of the social, economic and environmental conditions around the reservoir. TVA shall 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. Reservoir properties that have become fragmented from the reservoir will be evaluated to determine their public benefit. If

it is determined by TVA's CEO that these fragmented properties have little or no public benefit, they shall be declared surplus and sold at public auction to the highest bidder in the same manner as surplus power or commercial properties.

Residential Use- TVA shall not allocate lands or land rights for residential use or dispose of reservoir properties for residential use.

Economic Development- TVA shall consider disposing of reservoir lands or land rights for industrial purposes or other businesses if the TVA property is located in an existing industrial park, or is designated for such purposes in a current reservoir land management plan and verified as suitable for such use by RSO&E and ED staff in a property survey. The TVA Board directs staff to complete this survey within six months of the approval of this policy. The TVA Board recognizes that property with water access, for either navigation or water supply, is a limited resource in the Valley and has preference for businesses that require water access. Future reservoir land management plans will consider industrial development opportunities as land allocations are made. TVA shall consider disposing of non-waterfront reservoir properties in industrial parks for any purpose permitted by the industrial park covenants. TVA shall not allocate lands or land rights for retail use or dispose of reservoir land or land rights for such use.

Recreation- TVA shall consider leasing or granting limited easements over lands for the development of commercial recreation facilities or public recreation purposes if the property is so designated in a reservoir land management plan and a survey conducted by RSO&E determines that the site remains suitable for recreational uses and a continued need exists for such use. The TVA Board directs staff to complete this survey within six months of the approval of this policy. Commercial recreation is defined as recreation with facilities that are provided for a fee to the public intending to produce a profit for the owner/operator. Public recreation is defined as recreation on publicly owned land with facilities developed by a public agency (or their concessionaire) and provides amenities open to the general public.

Commercial Recreation- TVA leases or easements for commercial recreation purposes shall limit the use primarily to water-based recreation designed to enhance the recreation potential of the natural resources of the river and be a stimulus for regional economic development. TVA leases or easements for commercial recreation purposes will contain restrictions against residential use, and no long term accommodations or individually owned units will be permitted.

Public Recreation- TVA leases or easements for public recreation purposes will contain restrictions against 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.

Deed Restrictions over Private Lands- The TVA Board recognizes that much of TVA's lands were transferred upon specific agreement among the parties to conduct activities that would enhance recreation opportunities in the Valley. TVA will continue to consider the release or modification of flowage rights no longer necessary to TVA to operate the river system. TVA will consider the removal or modification of deed provisions to facilitate industrial

development. TVA will also consider the removal or modification of deed restrictions that result in the public having recreational access to the tract, or if the tract is already open to the public, maintains that access. TVA will not remove or modify other deed restrictions for the purpose of facilitating residential development. To the extent permitted by the language of deed or other transfer or contractual instrument, TVA will administer its interest in former TVA land to achieve the goals of this policy.

Operational Uses of TVA Properties- TVA shall continue to utilize reservoir properties to meet the operational needs of the agency and its distributors as well as provide for public infrastructure needs such as roads, water and sewer lines, and other utilities, but will only consider requests for private infrastructure where TVA determines no other practicable alternative exists. Nothing in this policy is intended to prevent the disposal of tracts of land upon the recommendation of the General Counsel to settle claims or litigation or to address issues of contamination or potential contamination. In addition, TVA will continue to work with development agencies (and other partners) throughout the Valley to implement previously executed agreements.

Power & Commercial Properties

TVA's nonreservoir property—primarily power and commercial properties and mineral holdings--shall continue to be managed as power assets. The TVA Board directs staff to undertake a review of TVA mineral holdings for later policy consideration. Retention and disposal decisions will be primarily based on business considerations consistent with the TVA Act and other applicable requirements. TVA may enter into special arrangements with the distributors of TVA power. In addition, TVA may relinquish transmission line rights, if they are determined to be unnecessary for present or future operations and the current owner agrees to pay the enhanced fair market value of the property. In all other instances, TVA shall emphasize sales that generate the maximum competition among bidders at public auction and where possible shall not include use restrictions other than those designed to protect TVA's program interests or to meet legal or environmental requirements.

APPENDIX B – TVA LAND USE ZONE DEFINITIONS

Appendix B

Reservoir Land Management Planning Zones

Zone 1: Non-TVA Shoreland

This is shoreland located above summer pool elevation that TVA does not own in fee, or land that was never purchased by TVA. TVA does not allocate private or other non-TVA land. This category is provided to assist in any comprehensive evaluation of potential environmental impacts of TVA's allocation decisions.

Zone 2: Project Operations

This category includes all TVA reservoir land currently used for TVA operations and public works projects. It includes:

- Land adjacent to established navigation operations: locks, lock operations and maintenance facilities and the navigation work boat dock and bases
- Land used for TVA power projects operations: generation facilities, switchyards and transmission facilities and rights-of-way
- Dam reservation land: areas used for developed and dispersed recreation, maintenance facilities, watershed team offices, research areas and visitor centers
- Navigation safety harbors/landings: areas used for tying off commercial barge tows and recreational boats during adverse weather conditions or equipment malfunctions
- Navigation dayboards and beacons: areas with structures placed on the shoreline to facilitate navigation
- Public works projects include fire halls, public water intakes, public treatment plants, etc.
- Land planned for any of the above uses in the future

Zone 3: Sensitive Resource Management

This land is 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. 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:

- TVA-designated sites with potentially significant archaeological resources
- TVA public land with sites/structures listed on or eligible for listing on the National Register of Historic Places
- Wetlands: aquatic bed, emergent, forested and scrub-shrub wetlands as defined by TVA.
- TVA public land under easement, lease or license to other agencies/individuals for resource protection purposes
- TVA public land fronting land owned by other agencies/individuals for resource protection purposes

- Habitat Protection Areas: these TVA Natural Areas are managed to protect populations of species identified as threatened or endangered by the USFWS, state-listed species and any unusual or exemplary biological communities/geological features
- Ecological Study Areas: these Natural Areas are designated as suitable for ecological research and environmental education by a recognized authority
- Small Wild Areas: these TVA Natural Areas are managed by TVA alone 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
- River corridor with sensitive resources: 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
- Significant scenic areas: these are areas designated for visual protection because of their unique vistas or particularly scenic qualities
- Champion tree site: areas designated by TVA as sites that contain the largest known individual tree of its species in that state; the state forestry agency Champion Tree Program designates the tree, while TVA designates the area of the sites for those located on TVA public land
- Other sensitive ecological areas: examples of these areas include heron rookeries, uncommon plant and animal communities and unique cave or karst formations

Zone 4: Natural Resource Conservation
This is 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:

- TVA public land under easement, lease or license to other agencies for wildlife or forest management purposes
- TVA public land fronting land owned by other agencies for wildlife or forest management purposes
- TVA public land managed for wildlife or forest management projects
- Informal recreation areas maintained for passive, dispersed recreation activities, such as hunting, hiking, birdwatching, photography, primitive camping, bank fishing and picnicking
- Shoreline Conservation Areas: narrow riparian strips of vegetation between the water's edge and TVA's back-lying property that are managed for wildlife, water quality or visual qualities
- Wildlife Observation Areas: TVA Natural Areas with unique concentrations of easily observed wildlife that are managed as public wildlife observation areas
- River corridor without sensitive resources present: a river corridor is a linear green space along both stream banks of selected tributaries entering a reservoir managed for light boat access at specific sites, riverside trails and interpretive activities
- Islands of 10 acres or less

Zone 5: Industrial
This is land managed for economic development, including businesses in distribution-processing-assembly and light manufacturing. Preference will be given to businesses requiring water access. Parcel descriptions should describe the primary type of use and discuss potential for infrastructure, access and development; access for water supply or structures associated with navigation such as barge terminal, mooring cell, etc.; and land-based development potential. Areas included are:

- TVA public land under easement, lease or license to other agencies/individuals for purposes described above
- TVA public land fronting land owned by other agencies/individuals for industrial purposes described above
- Sites planned for future use supporting sustainable development

Types of development that can occur on this land are:

- Business parks (not including retail, service-based businesses like laundry, fast food, grocery stores, gas stations, day cares or any walk-in type businesses)
- Industrial access: access to the waterfront by back-lying property owners across TVA property for water intakes, wastewater discharge, or conveyance of commodities (i.e., pipelines, rail or road)
- Barge terminal sites: public or private facilities used for the transfer, loading and unloading of commodities between barges and trucks, trains, storage areas or industrial plants
- Fleeting areas: sites used by the towing industry to switch barges between tows or barge terminals that have both offshore and onshore facilities.
- Minor commercial landing: a temporary or intermittent activity that takes place without permanent improvements to the property—these sites can be used for transferring pulpwood, sand, gravel and other natural resource commodities between barges and trucks

Zone 6: Developed Recreation
The designations below are based on levels of development and the facilities available to the public, graduating from informal use to more developed use. Parcel descriptions should describe the primary type of use and discuss potential for infrastructure, access, and development.

- Water access: small parcels of land, generally less than 10 acres, and typically shoreline areas conveyed to public agencies for access
- Public: more recreational opportunities, some facilities, more than just launching a boat and typically generally greater than 10 acres including areas that have been conveyed for public recreation
- Commercial: property suitable and capable of supporting commercial water-based operations including areas that have been conveyed for commercial recreation

All reservoir land managed for concentrated, active recreational activities that require capital improvement and maintenance, including:

- TVA public land under easement, lease or license to other agencies/individuals for recreational purposes.

- TVA public land fronting land owned by other agencies/individuals for recreational purposes.
- TVA public land developed for recreational purposes, such as campgrounds, day use areas, etc.
- Land planned for any of the above uses in the future.

Types of development that can occur on this land are:

- Water access: e.g., areas that tend to be informal and can include launching ramps, courtesy piers, canoe access, parking areas, picnic areas, trails, etc.
- Public recreation: recreation on publicly owned land with facilities developed by a public agency and providing amenities open to the general public. Facilities at "public recreation" (municipalities/communities) areas typically include playgrounds/play structures, picnic facilities, tennis courts, horseshoe areas, play courts, recreation center, 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/or overnight (developed) camping
- Commercial recreation: 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, excursion tour vessels (restaurant on the water), etc.
- Greenways: 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

Zone 7: Shoreline Access

This is TVA-owned land where Section 26a applications and other land use approvals for shoreline alterations are considered. Requests for 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 can occur on this land are:

- Water use facilities, e.g., docks, piers, launching ramps/driveways, marine railways, boathouses, enclosed storage space and nonpotable water intakes
- Access corridors, e.g., pathways, wooden steps, walkways or mulched paths, which can include portable picnic tables and utility lines
- Shoreline stabilization, e.g., bioengineering, riprap and gabions and retaining walls
- Shoreline vegetation management on TVA-owned access shoreland
- Conservation easements for protection of the shoreline
- Other activities, e.g., fill, excavation, grading, etc.

APPENDIX C – UPDATES TO FORMER ZONE 8 (CONSERVATION PARTNERSHIP) PARCELS AND ASSOCIATED CRITERIA PARCELS

Appendix C

Updates to Former Zone 8 (Conservation Partnership) Parcels and Associated Criteria

Zone 8 Background

During the initial lands planning process on Tims Ford Reservoir in 2000, a new land use Zone 8 (Conservation Partnership) was created in response to public comments seeking both additional residential access to the reservoir and increased community involvement in watershed protection. Many public comments reflected that TERDA had indicated to private individuals that their property would be eligible for a private water-use facility and the 2000 draft land management plan had allocated their land for Zone 4 (Natural Resource Conservation) which would not be eligible to apply for a private water-use facility. Rather than disregarding these comments due to lack of land rights and residential permitting history, TVA created Zone 8 parcels as a compromise to recognize the history with TERDA and work with those communities to ensure that the developments would not have a detrimental impact to the reservoir.

Zone 8 parcels were identified as narrow strips of public shoreland (and other specific criteria) where a wider shoreline buffer zone (100' from the 895' contour) could be established to benefit the environment and where TERDA would have typically considered a license agreement for a water-use facility. To ensure long-term maintenance and enhancement of the 100-ft buffer zone, a conservation partnership easement over the privately owned land would be required. This private conservation easement would be provided to TVA in exchange for TVA's consideration of requests for community water-use facilities on the adjacent public land. The TVA Board-approved 2000 RLMP outlines certain criteria and conditions for approving community facilities on Zone 8 parcels. Originally 51 parcels were approved. One parcel was reallocated after it was discovered that it met the criteria for Zone 7 allocation.

Proposed updates to former Zone 8 parcels

After review of the current criteria, existing permits and applications, public comments, and all historical information, TVA is proposing the following updates to Zone 8 parcels under Alternative B as the preferred alternative. Other alternatives being considered as part of this review are included in the next section. All proposed updates at this point are in draft form and may be altered before final approval.

1) TVA would no longer use the Zone 8 (Conservation Partnership) allocation. This is an allocation unique to Tims Ford Reservoir and does not align with the CVLP. TVA is proposing to allocate the existing Zone 8 parcels as either Zone 4 or Zone 7 (with restrictions) depending on the unique circumstances of each parcel.

    a) Zone 8 parcels are proposed for reallocation to Zone 4 if in TVA's sole discretion: 1) the parcel cannot support one or more community or shared facility, 2) access/eligibility is limited by the presence of road or other encumbrance, or 3) all eligible properties have already been accommodated with a permit in some manner (this includes through grandfathered facilities).

b) Other parcels are proposed for reallocation to Zone 7 but will also have an orange line along the boundary between TVA and private property representing that additional restrictions will be in place. Specific information about those restrictions continues below.

2) Conservation easements would no longer be required. Any new Section 26a permit requests will be subject to Section 26a regulations on vegetation management.

   a) Any existing conservation easement holder will be allowed to apply to abandon the existing conservation easement, but there is no requirement to do so. To begin the abandonment process, a land disposal application and a $5000 application fee is required. As part of this process, TVA will need to know if there are any plans to change the subdivision plat or the community facilities. If a conservation easement holder chooses to abandon an existing conservation easement, TVA will need to ensure that existing or proposed facilities will fit under the new guidance. However, if conservation easements are left in place, existing facilities can remain as long as they match the existing permit, continue to follow the conservation easement, and are in good condition.

3) Community facilities will be required.

   a) TVA would allow one single slip in a community facility per 100 feet of shoreline (double slips would count as two slips) but would not approve more slips than there are lots or tax parcels adjoining the TVA parcel boundary (not including the community lot). If the community lot is limited by shoreline length, cove width or any other factors that TVA, in its sole discretion, would determine necessary to limit the number of slips or type of facility, other types of facilities such as a T-pier or boat-launching ramp could be requested but would be limited to a maximum of 2,000 square feet.

   b) Multiple community facilities could be considered if there are multiple community access lots. All slips approved on a parcel would be counted to arrive at a total count of slips for section (a). A community could not request both slips and another type of facility such as a T-pier but could request slips on one community lot and a launching ramp on another community lot. The size of the community lot would need to be suitable for the type of facility requested (e.g. if requesting a ramp, enough space to turn a truck and trailer around to back in).

   c) Requests would have to be submitted by and managed by a state-chartered homeowners' association if more than four lots or tax parcels have an interest in a parcel. Shared docks with shared agreements could be considered in limited circumstances where four or less lots or tax parcels are involved. A community access lot would not be required for a shared dock.

   d) Requests for riprap or one launching ramp per planning parcel would be considered if submitted by a Homeowners Association (HOA) or shared dock owners.

e) Individual steps, access corridors or other private facilities will not be considered. However, if there is a site-specific reason requiring additional access, TVA can consider at its sole discretion.

f) Not all adjacent property owners need to participate for an application to be submitted. However, the HOA would need to accommodate them if they should choose to participate at a later date. Section 26a applications should reflect the number of property owners participating at the time of submission.

g) If an individual owns the entirety of the property behind a parcel, a 1,000 square foot facility can be permitted (only one single slip permittable). If the property is later subdivided, the facility must then become a shared or community facility depending on how many times it is subdivided, and a new application must be submitted to TVA. If an individual owns one tax parcel behind two TVA parcels, only one 1,000 square foot facility will be permitted.

4) Existing grandfathered facilities (with a permit matching the existing facility and in the current homeowner's name) will be allowed to remain on the parcel and will not be required to participate in a community facility. However, if they desire to remove the facility in the future and participate in the community facility, the HOA must allow for that situation. This situation only applies to a limited number of parcels.

This option was identified as the preferred alternative due to its flexibility in implementation which allows TVA to accommodate the intent behind Zone 8 parcels while aligning requirements with current regulations.

Other alternatives

Alternative C

1) TVA would continue to use the Zone 8 (Conservation Partnership) allocation. However, not all parcels previously allocated as Zone 8 would continue to be allocated as Zone 8.

   a) Parcels where TVA would not be able to grant a conservation easement due to onsite issues such as structures or roads or parcel-specific site constraints, in TVA's sole discretion, would be reallocated to Zone 4 (Natural Resource Conservation). Parcels could also be reallocated to Zone 4 because private property owners do not adjoin TVA property due to roads or roads would block access to the water. Parcels where backlying property owners have been accommodated through other means may also be reallocated to Zone 4.

   b) Parcels where conservation easements and community facilities are still feasible will continue with the Zone 8 allocation.

2) Conservation easements would still be required. However, TVA would allow for 100-foot average conservation easement depth (from 895-foot contour) to allow for some flexibility in how the conservation easement is surveyed. No additional facilities would be allowed on TVA or the conservation easement other than the water-use facility and access corridor including parking areas, ramps, marine railways, pavilions, etc.

3) Community facilities would still be required. The size and number of community facilities would remain the same (one or two facilities per parcel at 2,000 square feet per facility). One single slip will be allowed per tax parcel. All backlying property owners would still need to participate (except grandfathered facilities). Community lots will be required to be owned and maintained by a state-chartered HOA.

4) If an individual owns behind the entirety of a parcel, then a conservation easement would still be required, but a 1,000 square foot facility would be permittable (one slip). If the property was later subdivided, the facility would then need to be managed by an HOA and become a community facility and a new Section 26a application submitted to TVA.
5) Existing grandfathered facilities would be allowed to remain (if the existing facility matches the current permit and is in the current homeowner's name) and would not be counted in the 2,000 square feet for community facilities.

Alternative D

1) TVA would no longer use the Zone 8 (Conservation Partnership) allocation. This is an allocation unique to Tims Ford Reservoir and does not align with the CVLP. In order to better align with the CVLP, TVA is proposing to allocate the existing Zone 8 parcels as either Zone 4 or Zone 7 (with restrictions) depending on the unique circumstances of each parcel.

    a) Zone 8 parcels are proposed for reallocation to Zone 4 if the parcel cannot support multiple individual facilities and/or community facilities in TVA's discretion, if access/eligibility is limited by the presence of road or other encumbrance, or if all eligible properties have already been accommodated with a permit in some manner (this includes through grandfathered facilities).

    b) Other parcels are proposed for reallocation to Zone 7 but will also have an orange line along the boundary between TVA and private property representing that additional restrictions will be required.

2) Conservation easements would no longer be required. Any new Section 26a permits will be subject to Section 26a regulations on vegetation management.

    a) Any existing conservation easement holder will be allowed to apply to abandon the existing conservation easement, but there is no requirement to do so. To begin the abandonment process, a land disposal application and a $5000 application fee is required. As part of this process, TVA will need to know if there are any plans to change the subdivision plat or the community facilities. TVA will need to ensure that existing or proposed facilities will fit under the new guidance.

3) Community facilities would no longer be required. Facility size would be divided dependent on the amount of parcel shoreline owned with the maximum size as outlined in the 2000 RLMP (either 2000 or 4000 square feet depending on the parcel).

    a) For example, a parcel has 800 feet of shoreline, Owner Y has 80 feet of shoreline or 10%. Owner Y can have 10% of the facility size (2000 square feet for this parcel). Owner Y can have a 200 square foot facility. TVA would be the sole arbiter in determining the length of shoreline allocated to each property owner. Property

owners could submit documentation such as surveys to help inform TVA's decision-making process, but the shoreline footage will not be determined at the property boundary, but at the shoreline (888-foot normal summer contour) and will therefore not match the property boundary.

b) No individual facility can exceed 1,000 square feet (Section 26a regulations), no matter how much shoreline footage is owned. One facility per tax parcel.

c) Community facilities could be considered in accordance with TVA Section 26a regulations.

4) Existing grandfathered facilities (with a permit matching the existing facility and in the current homeowner's name) will be allowed to remain on the parcel. Any existing facilities without such documentation are highly encouraged to contact TVA as soon as possible to see if the facility is permittable.

Table C-1 Comparison of Zone 8 (Conservation Partnership) Reallocation Options

2000 Parcel Number	2025 Parcel Number	Alternative A (Zone)[1]	Alternative B - Preferred (Zone)[1]	Alternative C (Zone)[1]	Alternative D (Zone)[1]
6-1	7	8	7 with Restrictions	8	7 with Restrictions
8-1	13	8	4	4	4
8-2	14	8	7 with Restrictions	4	7 with Restrictions
18-1	155	8	7 with Restrictions	8	7 with Restrictions
18-2	154	8	7 with Restrictions	8	7 with Restrictions
20-1	22	8	7 with Restrictions	8	7 with Restrictions
20-2	23	8	7 with Restrictions	8	7 with Restrictions
20-3	20	8	4	4	4
22-1	26	8	7 with Restrictions	8	7 with Restrictions
22-2	27	8	7 with Restrictions	8	7 with Restrictions
22-3	29, 25, 30	8	7 with Restrictions, 4, 2	4, 2	7 with Restrictions, 4, 2
22-4	31	8	7 with Restrictions	4	7 with Restrictions
22-5	32	8	7 with Restrictions	8	7 with Restrictions
26-1	37	8	7 with Restrictions	4	7 with Restrictions

2000 Parcel Number	2025 Parcel Number	Alternative A (Zone)[1]	Alternative B - Preferred (Zone)[1]	Alternative C (Zone)[1]	Alternative D (Zone)[1]
28-1	43, 40	8	7 with Restrictions, 4	4, 8	7 with Restrictions, 4
28-2	41	8	7 with Restrictions	8	7 with Restrictions
33-1	47	8	7 with Restrictions	4	7 with Restrictions
34-1	52A, 52B	8	7 with Restrictions	8	7 with Restrictions
34-2	51	8	7 with Restrictions	8	7 with Restrictions
39-1	56	8	4	4	4
39-2	57	8	7 with Restrictions	8	7 with Restrictions
40-1	64	8	7 with Restrictions	8	7 with Restrictions
40-2	63	8	7 with Restrictions	4	7 with Restrictions
40-3	62, 59	8	7 with Restrictions, 4	4	7 with Restrictions, 4
40-4	61	8	7 with Restrictions	8	7 with Restrictions
40-5	58	8	7 with Restrictions	8	7 with Restrictions
50-1	74, 73	8	7 with Restrictions, 4	4	7 with Restrictions, 4
50-2	75	8	7 with Restrictions	4	7 with Restrictions
52-1	78	8	7 with Restrictions	8	7 with Restrictions
52-2	79, 77	8	7 with Restrictions, 4	4, 8	7 with Restrictions, 4
52-3	80	8	7 with Restrictions	4	7 with Restrictions
52-4	81	8	7 with Restrictions	8	7 with Restrictions
57-1	86	8	7 with Restrictions	4	7 with Restrictions
57-2	88	8	7 with Restrictions	4	7 with Restrictions
66-1	100	8	7 with Restrictions	4	7 with Restrictions
69-1	105	8	7 with Restrictions	4	7 with Restrictions
71-1	114	8	7 with Restrictions	4	7 with Restrictions
71-2	113	8	7 with	4	7 with

2000 Parcel Number	2025 Parcel Number	Alternative A (Zone)[1]	Alternative B - Preferred (Zone)[1]	Alternative C (Zone)[1]	Alternative D (Zone)[1]
			Restrictions		Restrictions
71-3	111	8	7 with Restrictions	4	7 with Restrictions
71-4	110	8	7 with Restrictions	8	7 with Restrictions
71-5	109	8	7 with Restrictions	8	7 with Restrictions
73-1	118, 117	8	7 with Restrictions, 6	4, 6	7 with Restrictions, 6
73-2	116, 117	8	7 with Restrictions, 6	6, 8	7 with Restrictions, 6
77-1	146	8	7 with Restrictions	8	7 with Restrictions
77-2	145	8	7 with Restrictions	8	7 with Restrictions
77-3	144	8	7 with Restrictions	4	7 with Restrictions
81-1	138	8	7 with Restrictions	4	7 with Restrictions
86-1	125	8	7 with Restrictions	8	7 with Restrictions
86-2	127	8	7 with Restrictions	8	7 with Restrictions
88-2	135	8	7 with Restrictions	4	7 with Restrictions

[1] Zone 4 = Natural Resource Conservation; Zone 6 = Developed Recreation; Zone 7 = Shoreline Access; Zone 8 = Conservation Partnership

APPENDIX D – TIMS FORD RESERVOIR PARCEL INDEX (ALTERNATIVE B – PREFERRED ALTERNATIVE)

Appendix D

Table D-1 Draft Tims Ford Land Plan Parcel Index (Alternative B)

Tims Ford Reservoir Panel 1					
Parcel	Zone	Acreage	Parcel	Zone	Acreage
1	2	390.46	35	7	9.21
2	4	143.01	36	4	157.37
3	7	7.44	37*	7	3.33
4	6	373.34	38	2	0.11
5	4	42.26	39	6	4.44
6	7	16.61	40	4	237.94
7*	7	0.85	41*	7	0.72
8*	7	13.80	42	7	8.76
9	5	0.22	43*	7	2.05
10	4	187.16	44	2	0.64
11	2	7.85	45	6	10.06
12	7	5.30	46*	7	19.76
13	4	1.95	47*	7	2.67
14*	7	2.11	48	4	170.91
15	6	1.86	49	7	12.96
16	7	19.47	50	4	3.19
17	2	0.89	51*	7	0.41
18	6	2.19	52A*	7	1.50
19	4	537.83	52B*	7	1.11
20	4	1.19	53	4	1.81
21	2	5.97	54	6	1.87
22*	7	0.16	55	7	8.14
23*	7	0.69	56	4	0.50
24	7	11.94	57*	7	0.29
25	4	67.01	151*	7	37.97
26*	7	0.51	152	4	22.97
27*	7	0.66	153	7	14.39
28	2	1.47	154*	7	0.76
29*	7	3.24	155*	7	0.70
30	2	2.10	156	7	30.95
31*	7	0.67	157	4	15.24
32*	7	0.97	158	4	381.40
33	6	5.66	159	7	15.76
34	4	72.98	160	4	86.21

Tims Ford Reservoir Panel 2					
Parcel	Zone	Acreage	Parcel	Zone	Acreage
4	6	373.34	101	3	57.3
48	4	170.91	102	7	9.16
52A*	7	1.50	103	2	1.44
52B*	7	1.11	104	4	17.08
53	4	1.81	105*	7	0.31
54	6	1.87	106	7	3.54
55	7	8.14	107	3	16.86
56	4	0.50	108	4	22.56
57*	7	0.29	109*	7	1.01
58*	7	1.01	110*	7	0.99
59	4	17.73	111*	7	2.43
60	2	0.74	112	7	3.07
61*	7	0.42	113*	7	0.70
62*	7	2.72	114*	7	2.36
63*	7	0.41	115	3	17.18
64*	7	0.91	116*	7	0.48
65	7	5.82	117	6	3.61
67*	7	12.55	118*	7	1.39
68	4	10.34	119	4	15.44
69	7	17.35	120	7	16.91
70	2	8.56	121	4	117.92
71	6	3.08	122	6	89.87
72	7	8.83	123	2	8.36
73	4	11.76	124	4	2.51
74*	7	0.88	125*	7	0.83
75*	7	0.72	126	7	7.17
76*	7	13.11	127*	7	2.09
77	4	78.22	128	2	0.85
78*	7	1.19	129	4	15.70
79*	7	0.91	130	6	0.35
80*	7	1.08	131	7	21.56
81*	7	1.54	132	6	0.59
82	7	26.25	133	3	60.56
83	6	1.62	134	7	9.31
84	2	0.61	135*	7	1.75
85	7	22.10	136	6	5.25
86*	7	1.62	137	4	25.05
87	4	57.54	138*	7	1.77
88*	7	2.64	139	2	2.49
89	7	18.48	140	7	3.03
90	4	23.46	141	6	76.61
91	2	1.76	142	2	4.99
92	6	22.57	143	4	47.94

Tims Ford Reservoir Panel 2					
Parcel	Zone	Acreage	Parcel	Zone	Acreage
93	7	12.64	144*	7	0.32
94	2	8.31	145*	7	1.75
95	6	4.96	146*	7	0.48
96	4	34.31	147	4	33.21
97	3	214.42	148	7	15.71
98	2	22.08	149	2	7.89
99	4	18.55	150	6	33.76
100*	7	1.33			

*Zone 7 with Restrictions

APPENDIX E – COMPARISON OF PARCEL ALLOCATIONS BY ALTERNATIVE

Appendix E
Comparison of Parcel Allocations by Alternative
Tims Ford Reservoir

Under Alternative A – No Action Alternative, TVA would continue to use the 2000 Tims Ford Reservoir Land Management and Disposition Plan (2000 RLMP).

Under Alternative B, C and D, of the 4,685.5 acres on Tims Ford Reservoir, there are no proposed allocation changes to 4,125.27 acres or 88.0 percent; all allocation changes involve 560.18 acres or 12.0 percent. Of the 560.18 acres, TVA would allocate 94.75 acres or 2.0 percent to reflect existing land use agreements or commitments. The remaining 465.43 acres (9.9 percent) involve parcel allocations that are not based on existing land use agreements or commitments. The allocation changes acreage includes all Zone 8 (Conservation Partnership) acreage in all three options.

Please note that parcel numbers indicate proposed parcel numbers rather than parcel numbers referenced in the 2000 RLMP and any previously approved allocation changes would be accounted as if approved in the 2000 RLMP.

[1]Some parcels from the original 2000 RLMP have been separated into smaller portions or combined with pieces of other parcels to show comprehensive consideration of parcel land use. A footnote has been used to indicate where only a portion of a parcel may have been affected by a proposed allocation change.

See Tables below:
Table 1 = No Allocation Changes;
Table 2 = Changes Based on Existing Agreements or Commitments;
Table 3=Changes NOT Based on Existing Agreements or Commitments.

Table E-1. No Allocation Changes				
Parcel	**No Action Alternative (Alternative A)**	**Alternative B Allocation**	**Alternative C Allocation**	**Alternative D Allocation**
1	2	2	2	2
2	4	4	4	4
3	7	7	7	7
4	6	6	6	6
5	4	4	4	4
6	7	7	7	7
10	4	4	4	4
12	7	7	7	7
15	6	6	6	6
16	7	7	7	7
19	4	4	4	4
24	7	7	7	7
33	6	6	6	6
34	4	4	4	4
35	7	7	7	7
36	4	4	4	4
39	6	6	6	6
40	4	4	4	4
42	7	7	7	7
46	7*	7*	7*	7*
49	7	7	7	7
50	4	4	4	4
53	4	4	4	4
54	6	6	6	6
59	4	4	4	4
65	7	7	7	7
66	4	4	4	4
67	7*	7*	7*	7*
68	4	4	4	4
69	7	7	7	7

Table E-1. No Allocation Changes				
Parcel	**No Action Alternative (Alternative A)**	**Alternative B Allocation**	**Alternative C Allocation**	**Alternative D Allocation**
72	7	7	7	7
76	7*	7*	7*	7*
82	7	7	7	7
83	6	6	6	6
85	7	7	7	7
87	4	4	4	4
89	7	7	7	7
90	4	4	4	4
92	6	6	6	6
93	7	7	7	7
96	4	4	4	4
99	4	4	4	4
101	3	3	3	3
102	7	7	7	7
107	3	3	3	3
108	4	4	4	4
112	7	7	7	7
115	3	3	3	3
119	4	4	4	4
120	7	7	7	7
121	4	4	4	4
124	4	4	4	4
126	7	7	7	7
129	4	4	4	4
131	7	7	7	7
140	7	7	7	7
141	6	6	6	6
147	4	4	4	4
148	7	7	7	7
150	6	6	6	6

Table E-1. No Allocation Changes				
Parcel	**No Action Alternative (Alternative A)**	**Alternative B Allocation**	**Alternative C Allocation**	**Alternative D Allocation**
151	7*	7*	7*	7*
152	4	4	4	4
153	7	7	7	7
156	7	7	7	7
157	4	4	4	4
159	7	7	7	7
160	4	4	4	4
Total = 84[1] Parcels	Total =4,139.9 acres[1] (Alternatives B, C and D)			

*Restrictions as referenced in Appendix C and parcel descriptions
[1]Includes acreage from portions of parcels referenced in other tables unaffected by proposed allocation changes.

Table E-2. Changes Based on Existing Agreements or Commitments				
Parcel	**No Action Alternative (Alternative A)**	**Alternative B Allocation**	**Alternative C Allocation**	**Alternative D Allocation**
8[1,2]	7	7	7	7
9[2]	5	5	5	5
11	4	2	2	2
17	6	2	2	2
18	0	6	6	6
21	4, 6, 7	2	2	2
25[1]	0	2	2	2
28	4, 6	2	2	2
30	4, 8	2	2	2
38	0	2	2	2
44	4	2	2	2
45[1]	4, 6	6	6	6
55[1]	4, 7	7	7	7
60	4	2	2	2
65[1]	4	7	7	7
70	4	2	2	2

Table E-2. Changes Based on Existing Agreements or Commitments				
Parcel	**No Action Alternative (Alternative A)**	**Alternative B Allocation**	**Alternative C Allocation**	**Alternative D Allocation**
84	6, 7	2	2	2
91	4, 6, 7	2	2	2
94	0, 4	2	2	2
98	3	2	2	2
103	4, 7	2	2	2
106[1]	3, 7	7	7	7
123	0, 4, 6	2	2	2
128	4	2	2	2
130	4, 7	6	6	6
132	4	6	6	6
134[1]	4, 7	7	7	7
139	5	2	2	2
142	4, 6, 7	2	2	2
149	4	2	2	2
Total = 30 Parcels	Total =94.75 acres (Alternative B, C and D)			

[1]Only a portion of the parcel affected.
[2]This parcel is not changing allocations from the 2000 RLMP, but the parcel or a portion of the parcel, is proposed for a mapping relocation.

Table E-3. Changes NOT Based on Existing Agreements or Commitments				
Parcel	**No Action Alternative (Alternative A)**	**Alternative B Allocation**	**Alternative C Allocation**	**Alternative D Allocation**
7	8	7*	8	7*
13	8	4	4	4
14	8	7*	4	7*
20	8	4	4	4
22	8	7*	8	7*
23	8	7*	8	7*
26	8	7*	8	7*
27	8	7*	8	7*
29	8	7*	4	7*

Table E-3. Changes NOT Based on Existing Agreements or Commitments				
Parcel	**No Action Alternative (Alternative A)**	**Alternative B Allocation**	**Alternative C Allocation**	**Alternative D Allocation**
31	8	7*	8	7*
32	8	7*	8	7*
34[1]	0	4	4	4
37	8	7*	4	7*
41	8	7*	8	7*
43	8	7*, 4	8	7*, 4
47	8	7*	4	7*
48	3, 4	4	4	4
51	8	7*	8	7*
52A	8	7*	8	7*
52B	8	7*	8	7*
56	8	4	4	4
57	8	7*	8	7*
58	8	7*	8	7*
59[1]	4	4	4, 8	4
61	8	7*	8	7*
62	8	7*, 4	4	7*, 4
63	8	7*	8	7*
64	8	7*	8	7*
71	4	6	6	6
73[1]	4, 7, 8	4	4	4
74	8	7*	4	7*
75	8	7*	4	7*
77[1]	4, 8	4	4	4
78	8	7*	8	7*
79[1]	8	7*	8	7*
80	8	7*	8	7*
81	8	7*	8	7*
86	8	7*	4	7*
88	8	7*	8	7*

Table E-3. Changes NOT Based on Existing Agreements or Commitments				
Parcel	**No Action Alternative (Alternative A)**	**Alternative B Allocation**	**Alternative C Allocation**	**Alternative D Allocation**
95	4, 6	6	6	6
97[1]	0, 3	3	3	3
100	8	7*	4	7*
104[1]	0, 4	4	4	4
105	8	7*	4	7*
109	8	7*	8	7*
110	8	7*	8	7*
111	8	7*	4	7*
113	8	7*	4	7*
114	8	7*	4	7*
116	8	7*	8	7*
117[1]	6, 8	6	6	6
118	8	7*	4	7*
122	0, 6	6	6	6
125	8	7*	8	7*
127	8	7*	8	7*
133	0, 4	3	3	3
135	8	7*	4	7*
136	4	6	6	6
137[1]	4, 5	4	4	4
138	8	7*	4	7*
143[1]	5	4	4	4
144	8	7*	4	7*
145	8	7*	8	7*
146	8	7*	8	7*
154	8	7*	8	7*
155	8	7*	8	7*
158[1]	3,4	4	4	4
Total = 66 Parcels	Total =465.43 acres (Alternative B, C and D)			

APPENDIX F – LISTED IMPAIRED AND THREATENED WATERS – UPPER ELK RIVER WATERSHED

Table F-1 TDEC 2024 List of Impaired and Threatened Waters – Upper Elk River Watershed

Waterbody ID	Waterbody Name	Primary County	Other County	Water Type	Water Size	Unit	Impairment Cause Name
TN06030003001_0100	Reeves Branch	Giles		River	4.1	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003001_0100	Reeves Branch	Giles		River	4.1	Miles	Escherichia Coli (E. Coli)
TN06030003001_0100	Reeves Branch	Giles		River	4.1	Miles	Nutrients
TN06030003001_0300	Carr Creek	Lincoln		River	10.7	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003001_0300	Carr Creek	Lincoln		River	10.7	Miles	Sedimentation/siltation
TN06030003001_0400	Molino Creek	Lincoln		River	9.3	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003003_1000	Kelly Creek	Giles	Lincoln	River	26.1	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003003_1000	Kelly Creek	Giles	Lincoln	River	26.1	Miles	Sedimentation/siltation
TN06030003010_0400	Shelton Creek	Lincoln		River	11.6	Miles	Low flow alterations
TN06030003010_0700	Stewart Creek	Lincoln		River	9.6	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003012_0400	Robinson Creek	Lincoln	Franklin	River	11.46	Miles	Nutrients
TN06030003012_0400	Robinson Creek	Lincoln	Franklin	River	11.46	Miles	Nutrients
TN06030003012_0400	Robinson Creek	Lincoln	Franklin	River	11.46	Miles	Sedimentation/siltation
TN06030003012_0400	Robinson Creek	Lincoln	Franklin	River	11.46	Miles	Sedimentation/siltation
TN06030003012_1000	Beans Creek	Franklin		River	10.7	Miles	Sedimentation/siltation

Waterbody ID	Waterbody Name	Primary County	Other County	Water Type	Water Size	Unit	Impairment Cause Name
TN06030003012_1000	Beans Creek	Franklin		River	10.7	Miles	Sedimentation/siltation
TN06030003015_1000	Elk River	Franklin	Moore	River	15.4	Miles	Flow regime modification
TN06030003015_1000	Elk River	Franklin	Moore	River	15.4	Miles	Temperature
TN06030003030_1000	Boiling Fork Creek	Franklin		River	32.4	Miles	Escherichia Coli (E. Coli)
TN06030003032_1000	Wagner Creek	Franklin		River	18.8	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003032_1000	Wagner Creek	Franklin		River	18.8	Miles	Escherichia Coli (E. Coli)
TN06030003032_1000	Wagner Creek	Franklin		River	18.8	Miles	Escherichia Coli (E. Coli)
TN06030003032_1000	Wagner Creek	Franklin		River	18.8	Miles	Nutrients
TN06030003032_1000	Wagner Creek	Franklin		River	18.8	Miles	Nutrients
TN06030003032_1000	Wagner Creek	Franklin		River	18.8	Miles	Nutrients
TN06030003035_1000	Elk River	Franklin		River	6.2	Miles	Dissolved oxygen
TN06030003035_1000	Elk River	Franklin		River	6.2	Miles	Flow regime modification
TN06030003036_1000	Woods Reservoir	Franklin	Coffee	Lake/ Reservoir/ pond	3908	Acres	Polychlorinated biphenyls (pcbs)
TN06030003041_0100	Yellow Branch	Franklin		River	7.1	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003041_0100	Yellow Branch	Franklin		River	7.1	Miles	Alteration in stream-side or littoral vegetative covers

Waterbody ID	Waterbody Name	Primary County	Other County	Water Type	Water Size	Unit	Impairment Cause Name
TN06030003041_0100	Yellow Branch	Franklin		River	7.1	Miles	Escherichia coli (E. coli)
TN06030003041_0100	Yellow Branch	Franklin		River	7.1	Miles	Nutrients
TN06030003041_0100	Yellow Branch	Franklin		River	7.1	Miles	Nutrients
TN06030003041_0100	Yellow Branch	Franklin		River	7.1	Miles	Sedimentation/siltation
TN06030003041_0100	Yellow Branch	Franklin		River	7.1	Miles	Sedimentation/siltation
TN06030003044_0100	Betsy Willis Creek	Grundy	Coffee	River	22.5	Miles	Escherichia coli (E. coli)
TN06030003044_0100	Betsy Willis Creek	Grundy	Coffee	River	22.5	Miles	Nutrients
TN06030003044_0100	Betsy Willis Creek	Grundy	Coffee	River	22.5	Miles	Nutrients
TN06030003044_0700	Caldwell Creek	Grundy		River	9.93	Miles	Escherichia coli (E. coli)
TN06030003044_0710	Gilliam Creek	Grundy		River	6.16	Miles	Escherichia coli (E. coli)
TN06030003044_0712	Unnamed Trib to Gilliam Creek	Grundy		River	2.12	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003044_0712	Unnamed Trib to Gilliam Creek	Grundy		River	2.12	Miles	Escherichia coli (E. coli)
TN06030003044_0712	Unnamed Trib to Gilliam Creek	Grundy		River	2.12	Miles	Escherichia coli (E. coli)
TN06030003044_0713	Trussel Creek	Grundy		River	4.3	Miles	Escherichia coli (E. coli)
TN06030003044_0713	Trussel Creek	Grundy		River	4.3	Miles	Iron

Waterbody ID	Waterbody Name	Primary County	Other County	Water Type	Water Size	Unit	Impairment Cause Name
TN06030003044_0713	Trussel Creek	Grundy		River	4.3	Miles	Manganese
TN06030003044_0713	Trussel Creek	Grundy		River	4.3	Miles	Nutrients
TN06030003044_1000	Elk River	Franklin	Grundy	River	17.9	Miles	Escherichia coli (e. Coli)
TN06030003053_0100	Blue Creek	Coffee	Franklin; Moore	River	10.9	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003053_2000	Rock Creek	Coffee	Franklin	River	16.1	Miles	Dissolved oxygen
TN06030003053_2000	Rock Creek	Coffee	Franklin	River	16.1	Miles	Flow regime modification
TN06030003053_2000	Rock Creek	Coffee	Franklin	River	16.1	Miles	Nutrients
TN06030003053_2000	Rock Creek	Coffee	Franklin	River	16.1	Miles	Nutrients
TN06030003053_2000	Rock Creek	Coffee	Franklin	River	16.1	Miles	Sedimentation/siltation
TN06030003053_2000	Rock Creek	Coffee	Franklin	River	16.1	Miles	Sedimentation/siltation
TN06030003053_2000	Rock Creek	Coffee	Franklin	River	16.1	Miles	Temperature
TN06030003056_0100	W Fork Mulberry Creek	Lincoln	Moore	River	55.9	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003056_0100	W Fork Mulberry Creek	Lincoln	Moore	River	55.9	Miles	Escherichia coli (e. Coli)
TN06030003056_0100	W Fork Mulberry Creek	Lincoln	Moore	River	55.9	Miles	Escherichia coli (e. Coli)
TN06030003056_0200	E Fork Mulberry Creek	Lincoln		River	14	Miles	Alteration in stream-side or littoral vegetative covers

Waterbody ID	Waterbody Name	Primary County	Other County	Water Type	Water Size	Unit	Impairment Cause Name
TN06030003056_0200	E Fork Mulberry Creek	Lincoln		River	14	Miles	Escherichia coli (e. Coli)
TN06030003056_0200	E Fork Mulberry Creek	Lincoln		River	14	Miles	Escherichia coli (e. Coli)
TN06030003056_0250	E Fork Mulberry Creek	Moore		River	16.8	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003056_0250	E Fork Mulberry Creek	Moore		River	16.8	Miles	Escherichia coli (e. Coli)
TN06030003059_0100	Little Norris Creek	Lincoln		RIVER	26	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003059_0100	Little Norris Creek	Lincoln		RIVER	26	Miles	Sedimentation/siltation
TN06030003060_0600	Saunders Creek	Marshall		River	5.5	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003060_1000	Cane Creek	Marshall	Lincoln	River	44.5	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003060_1000	Cane Creek	Marshall	Lincoln	River	44.5	Miles	Escherichia coli (e. Coli)
TN06030003060_1000	Cane Creek	Marshall	Lincoln	River	44.5	Miles	Nutrients
TN06030003060_1000	Cane Creek	Marshall	Lincoln	River	44.5	Miles	Nutrients
TN06030003063_1000	Swan Creek	Lincoln		River	5.6	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003063_1000	Swan Creek	Lincoln		River	5.6	Miles	Escherichia coli (e. Coli)
TN06030003063_1000	Swan Creek	Lincoln		River	5.6	Miles	Nutrients
TN06030003063_1000	Swan Creek	Lincoln		River	5.6	Miles	Nutrients

Waterbody ID	Waterbody Name	Primary County	Other County	Water Type	Water Size	Unit	Impairment Cause Name
TN06030003063_2000	Swan Creek	Marshall	Lincoln	River	9.9	Miles	Dissolved oxygen
TN06030003063_2000	Swan Creek	Marshall	Lincoln	River	9.9	Miles	Escherichia coli (e. Coli)
TN06030003063_2000	Swan Creek	Marshall	Lincoln	River	9.9	Miles	Nutrients
TN06030003064_1000	Bradshaw Creek	Lincoln	Giles	River	27	Miles	Sedimentation/siltation
TN06030003065_1000	Indian Creek	Giles		River	20.5	Miles	Sedimentation/siltation
TN06030003085_1000	Childer Creek	Franklin		River	8.9	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003085_1000	Childer Creek	Franklin		River	8.9	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003085_1000	Childer Creek	Franklin		River	8.9	Miles	Sedimentation/siltation
TN06030003552_1000	Gum Creek	Franklin		River	12.9	Miles	Physical substrate habitat alterations
TN06030003552_1000	Gum Creek	Franklin		River	12.9	Miles	Physical substrate habitat alterations
TN06030003552_1000	Gum Creek	Franklin		River	12.9	Miles	Sedimentation/siltation
TN06030003552_1000	Gum Creek	Franklin		River	12.9	Miles	Sedimentation/siltation
TN06030003567_1000	Hessey Branch	Franklin		River	9.6	Miles	Alteration in stream-side or littoral vegetative covers
TN06030003567_1000	Hessey Branch	Franklin		River	9.6	Miles	Nutrients
TN06030003567_1000	Hessey Branch	Franklin		River	9.6	Miles	Nutrients

Waterbody ID	Waterbody Name	Primary County	Other County	Water Type	Water Size	Unit	Impairment Cause Name
TN06030003567_1000	Hessey Branch	Franklin		River	9.6	Miles	Physical substrate habitat alterations
TN06030003567_1000	Hessey Branch	Franklin		River	9.6	Miles	Sedimentation/siltation
TN06030003567_1000	Hessey Branch	Franklin		River	9.6	Miles	Sedimentation/siltation

APPENDIX G – SPECIES DATA FROM USFWS INFORMATION FOR PLANNING AND CONSULTATION

Table G-1 IPaC Species in the Vicinity of Tims Ford Reservoir

Mammals

Gray Bat	*Myotis grisescens*	Endangered
Indiana Bat	*Myotis sodalis*	Endangered
Tricolored Bat	*Perimyotis subflavus*	Proposed Endangered

Birds

Whooping Crane	*Grus americana* (Experimental population, Non-essential)	(EXPN)

Fishes

Barrens Topminnow	*Fundulus julisia*	Endangered
Boulder Darter	*Etheostoma wapiti*	Endangered

Clams

Finerayed Pigtoe	*Fusconaia cuneolus*	Endangered
Fluted Kidneyshell	*Ptychobranchus subtentus*	Endangered
Longsolid	*Fusconaia subrotunda*	Threatened
Rabbitsfoot	*Quadrula cylindrica cylindrica*	Threatened
Round Hickorynut	*Obovaria subrotunda*	Threatened
Shiny Pigtoe	*Fusconaia cor*	Endangered
Slabside Pearlymussel	*Pleuronaia dolabelloides*	Endangered
Tennessee Clubshell	Pleurobema oviforme	Proposed Endangered
Tennessee Pigtoe	Pleuronaia barnesiana	Proposed Endangered

Snails

Painted Snake Coiled Forest Snail	*Anguispira picta*	Threatened

Insects

Monarch Butterfly	*Danaus plexippus*	Proposed Threatened

Table G-1 continued

Flowering Plants

Price's Potato-bean	*Apios priceana*	Threatened
White Fringeless Orchid	*Platanthera integrilabia*	Threatened

Critical Habitats

- There are no critical habitats at this location.

Bald and Golden Eagles

Bald Eagle	Haliaeetus leucocephalus	*Non-BCC[1] Vulnerable*

[1] Bird of Conservation Concern

Migratory Birds

Bald Eagle	*Haliaeetus leucocephalus*
Black-billed Cuckoo	*Coccyzus erythropthalmus*
Bobolink	Dolichonyx oryzivorus
Brown-headed Nuthatch	*Sitta pusilla*
Cerulean Warbler	*Setophaga cerulea*
Chimney Swift	*Chaetura pelagica*
Eastern Whip-poor-will	*Antrostomus vociferus*
Field Sparrow	*Spizella pusilla*
Grasshopper Sparrow	*Ammodramus savannarum perpallidus*
Kentucky Warbler	Geothlypis formosa
Least Tern	*Sternula antillarum antillarum*
Lesser Yellowlegs	*Tringa flavipes*
Prairie Warbler	*Setophaga discolor*
Prothonotary Warbler	*Protonotaria citrea*
Red-headed Woodpecker	*Melanerpes erythrocephalus*
Rusty Blackbird	*Euphagus carolinus*
Wood Thrush	*Hylocichla mustelina*

APPENDIX H – TIMS FORD RESERVOIR FLOOD ELEVATIONS

Table H-1 Tims Ford Reservoir - Elk River Flood Profiles

Elk River Mile	100-Year Flood, ft	500-Year Flood, ft	Landmark
133.3	893.3	894.2	Tims Ford Dam
134.5	893.3	894.2	
136.2	893.3	894.2	
138.4	893.3	894.2	
140.8	893.3	894.3	
141.7	893.3	894.3	
142.3 (D)	893.3	894.3	Mansford Road Bridge
142.3 (U)	893.3	894.3	
142.6	893.4	894.3	
143.8	893.4	894.4	
144.1	893.4	894.4	
144.9	893.4	894.4	
146.5	893.4	894.4	
146.8	893.5	894.4	
148.2	893.5	894.5	
150.2	893.5	894.5	
151.4	893.5	894.6	
152.8	893.6	894.6	
154.4	893.6	894.7	
154.5 (D)	893.7	894.8	Old Tullahoma Road
154.5 (U)	893.7	894.9	
155.5	893.8	895.0	
157.4	893.9	895.1	
158.8	894.0	895.2	
159.2	894.0	895.3	
160.8	894.3	895.8	
162.9	894.6	896.2	
163.3 (D)	894.7	896.3	US Hwy 41 / State Rt 16
163.3 (U)	895.2	897.1	
163.4 (D)	895.4	897.4	CSX Transportation
163.4 (U)	895.9	898.1	
165.0	898.7	901.4	
166.4 (D)	901.2	903.7	Paynes Church Rd
166.4 (U)	901.6	904.1	
167.3 (D)	906.2	908.2	Morris Ferry Bridge Rd
167.3 (U)	907.4	910.2	

Tims Ford Reservoir - Elk River Flood Profiles, continued			
Elk River	**100-Year**	**500-Year**	
Mile	**Flood, ft**	**Flood, ft**	**Landmark**
168.5	909.9	912.3	
169.93	913.0	915.0	Elk River Dam

Elevations are referenced to National Geodetic Vertical Datum 1929

(D) downstream side of bridge
(U) upstream side of bridge