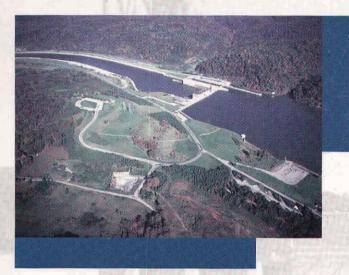


### Melton Hill Reservoir Land Management Plan







#### MELTON HILL RESERVOIR LAND MANAGEMENT PLAN

#### RESOURCE STEWARDSHIP FORT LOUDOUN, MELTON HILL, WATTS BAR WATERSHED

Prepared by

Tennessee Valley Authority Melton Hill Reservoir Planning Team

**River System Operations and Environment - Resource Stewardship** 

TVA Board approved April 21, 1999

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#### FINDING OF NO SIGNIFICANT IMPACT (FONSI)

#### MELTON HILL RESERVOIR LAND USE PLAN ANDERSON, KNOX, LOUDON, AND ROANE COUNTIES, TENNESSEE

#### Background

TVA develops reservoir land management plans to assist in managing the public lands around its lakes. TVA currently owns 1044 ha (2578 acres) of land above normal pool on Melton Hill Reservoir. The proposed land allocation plan for Melton Hill Reservoir updates a 1966 land use forecast. In addition, it allocates residential access shoreland into categories depending on the presence of sensitive environmental resources which TVA must protect. TVA notified the public and environmental agencies of its land planning effort for Melton Hill Reservoir in 1997. A draft Environmental Assessment (EA) was released for comment in November 1998. Comments were received by mail and at a public meeting held on November 30, 1998 in Oak Ridge, Tennessee. After considering all comments, TVA developed a Final Environmental Assessment and Land Use Plan. The allocation of two small parcels were changed from Recreation to Natural Resource Conservation as a result of these comments. This FONSI completes TVA's environmental review.

#### Alternatives

The EA evaluates the potential environmental impacts of continuing to base its land use decisions on the 1966 forecast (No Action Alternative, or Alternative A) or issuing a new Melton Hill Reservoir Land Use Plan for 159 parcels of TVA land totaling 1044 ha (Alternative B). The EA and accompanying Land Use Plan are attached and incorporated by reference. Under Alternative A, the forecast designations would remain in place. These designations for lands on Melton Hill Reservoir, with areas updated with more sophisticated computerized equipment, are as follows: Public Recreation (359.3 ha or 887.5 acres), Industrial (250.3 ha or 618.2 acres), Reservoir Operations (186.6 ha or 460.9 acres), Dam Reservation (100.8 ha or 249.0 acres), Navigation Safety Harbors/Landings (62.3 ha or 154.0 acres), Power Transmission System (55.1 ha or 136.2 acres), and Commercial Recreation (6.0 ha or 14.8 acres). In addition, 22.9 ha of land without current forecast designations would remain unallocated and 0.4 ha would be designated as a Pump Station (0.4 ha).

Under Alternative 2, the 1044 ha would be allocated into six planning zones, as follows: TVA Project Operations (119.2 ha or 294.4 acres), Sensitive Resource Management (516.4 ha or 1275.6 acres), Natural Resource Conservation (244.0 ha or 619.7 acres),

Industrial/Commercial Development (8.8 ha or 21.8 acres), Recreation (87.5 ha or 216.1 acres), and Residential Access (61.0 ha or 150.7 acres). In addition to providing more up-to-date allocations, Alternative B includes a Sensitive Resources Management zone. Lands containing rare species, archaeological resources, significant visual resources, and wetlands were allocated to this zone. Alternative B grandfathers previous land use commitments and allocates uncommitted TVA land to zones that allow for development while emphasizing resource stewardship. Neither alternative allocates additional shoreland for Residential Access (Zone 7). Residential Access would be considered only fronting land where shoreline alterations have already been approved or areas where outstanding rights exist for such requests.

TVA is not allocating private or other non-TVA land under the land management plan. Under the preferred alternative in the Shoreline Management Initiative (SMI) Environmental Impact Statement (EIS), TVA will perform a shoreline categorization of the residential shoreline. The shoreline categorization is composed of three categories: Managed Residential Shoreline, Residential Shoreline Mitigation, and Shoreline Protection. For Melton Hill Reservoir, the residential access shoreline comprises 38.7 km (23.2 miles) or 12.4 percent of the total shoreline distance (311.9 km or 193.4 miles). Approximately 68.9 percent of this residential shoreline is in the Residential Shoreline Mitigation category, 25.8 percent is in the Managed Residential category, and 5.3 percent is in the Shoreline Protection category. Private water use facilities would not be allowed in the Shoreline Protection category. Within the Shoreline Mitigation category, site specific impacts of the proposed residential access facilities would be assessed and impacts to sensitive resources would be avoided or mitigated, if potential impacts are likely. Shoreline in the Managed Residential category does not have any known sensitive resources and residential permitting would be according to applicable TVA standards. The Department of Energy flowage easement shoreland is not considered to be residential access shoreland.

#### **Impacts Assessment**

Under either Alternative, the EA finds that impacts to environmental resources would be insignificant. Under Alternative A, the individual project review process would avoid or minimize impacts to sensitive environmental resources. By contrast, Alternative B provides enhanced protection to sensitive resources (such as cultural sites, wetlands, and rare species) by allocating certain lands (almost 50 percent) to the Sensitive Resource Management category, thereby reducing the potential that these sensitive lands would be put to incompatible uses. Individual parcel descriptions in the Land Management Plan indicate specific commitments to protect sensitive environmental resources.

The EA identifies Alternative B as the preferred alternative since it emphasizes conservation while continuing to allow compatible public uses on certain tracts.

#### **Conclusion and Finding**

After review of the EA, we agree that the proposed allocation of 159 tracts of Melton Hill Reservoir land into six planning zones would not have a significant impact on the quality of the environment. Accordingly, an environmental impact statement is not required.

Jon M. Lon

April 20 1999 Date

Manager Environmental Management Tennessee Valley Authority

#### COMMITMENTS MELTON HILL RESERVOIR LAND MANAGEMENT PLAN

- 1. <u>Cultural resources review</u>. Any proposed activities on the following parcels would be reviewed pursuant to Section 106 of the National Historic Preservation Act and other applicable laws and regulations to prevent adverse effects on cultural resources: Parcels 1, 3, 45, 58, 59, 66, 110, 119, 127, 140, 141, 152, and 154.
- 2. <u>Rare plants</u>. Any approval of private water use facilities or other activities on the following parcels would be conditioned to avoid adverse impacts to rare plants: Parcels 2, 3, 25, 31, 91, and 102.
- 3. <u>Navigation</u>. Any approval of private water use facilities or other activities on the following parcels would be conditioned to avoid adverse impacts to navigation: Parcels 2, 20, 21, 23, 36, 39, 49, 50, 127, and 137.
- Wetlands. Any approval of private water use facilities or other activities on the following parcels would be conditioned to avoid adverse impacts to wetlands: Parcels 14, 16, 21, 25, 29, 31, 36, 39, 41, 45, 47, 50, 53, 58, 59, 63, 73, 80, 82, 84, 91, 102, 107, 112, 115, 127, and 137.
- <u>Bird Nesting Areas</u>. Buffer zones will be established around nesting osprey, caves, and heronries to protect these areas from encroachment due to commercial or residential development. Any construction of private water use facilities or other activities on the following parcel must be conducted between September and March to avoid impacts to nesting osprey: Parcel 29.
- 6. <u>Contamination</u>. Any construction involving ground disturbance is prohibited on the following parcels: 53, 98, 99, 109, 110
- 7. TVA will pursue removal of an unauthorized structures and other activities on parcels 29, 30, 34, 52, 75, and 130.
- Requests for residential shoreline alterations on Department of Energy shoreline (flowage easement) under Section 26a of the TVA Act will not be considered unless a proposal to mitigate the loss of public shoreline, preferably resulting in a gain of public shoreline, is submitted and approved by TVA.

## Introduction

#### INTRODUCTION

The Melton Hill Reservoir Land Management Plan (Plan) is the result of a study of the TVA-owned land surrounding the reservoir. This *Introduction* provides background information about TVA land management throughout its 65-year history, explains the purpose of the Plan, and describes the process used to develop the Plan. The *Melton Hill Reservoir Regional Overview* describes the natural and social development of the reservoir and surrounding area. *Melton Hill Reservoir Land Planning Goals and Objectives* list the objectives around which the Plan was developed. *Parcel Allocations* include a summary of the allocation process, zone definitions, and parcel descriptions documenting land management allocations. Allocation maps are stored in pockets inside the back cover of the document.

#### Background

The massive dam and reservoir construction program that was undertaken by TVA, following its creation in 1933, required the purchase of over one million acres of land for the creation of 34 reservoirs in five of the seven states in the Tennessee Valley region. Approximately 600,000 acres of that land lie above the summer pool elevation of the TVA reservoir system.

Arthur Morgan, Chairman of the TVA Board in the 1930s, viewed public land ownership as a tool to promote social objectives. Throughout its history, TVA has managed the public reservoir lands under its stewardship to meet a wide range of regional and local resource development needs and to improve the quality of life, both within specific reservoir areas and throughout the Tennessee Valley. Reservoir properties, together with adjoining private lands, have been used for public parks, industrial development, commercial recreation, residential development, tourism development, forest and wildlife management areas, and to meet a variety of other needs associated with local communities.

Today, TVA's land base Valleywide has been reduced to less than 265,000 acres, due to past conveyances of land. Out of these 265,000 acres, approximately 80,000 acres do not have prior commitments and are available for future TVA uses. An increasing demand for and use of reservoir land sometimes results in conflicting and uneconomical land use patterns and friction between public and private use. These competing interests and development pressures, coupled with today's environmental awareness, underscore the necessity for a planned approach to the management of TVA's reservoir land and related resources.

TVA initiated a comprehensive reservoir land management planning process in 1979. Since that time, land management plans have been completed and approved by the TVA Board of Directors for seven mainstream reservoirs (Pickwick, approved in 1981; Guntersville, approved in 1983; Kentucky, approved in 1985; Watts Bar, approved in 1988; Chickamauga, approved in 1989; Nickajack, approved in 1990, and Wheeler, approved in 1995). In addition, two special studies have been completed for Fort Loudoun Reservoir and the Muscle Shoals/Wilson Dam Reservations.

Planning for the 17 multipurpose tributary reservoirs began in 1997 using a streamlined planning process. This Plan is one of three piloting the new planning process.

#### Purpose

The purpose of this Plan is to help TVA managers make decisions relating to future use of land around Melton Hill Reservoir. By providing a clear statement of how TVA will manage its land and by identifying land for specific uses, the Plan helps minimize conflicting land uses and improve TVA's responsiveness to the public concerning land use requests.

TVA's land management's mission is to provide for customer-focused and value-add stewardship of TVA land and natural resources in order to:

- 1. Fulfill TVA's integrated resource management mission,
- 2. Manage the Tennessee River watershed and protect the reservoir system, and
- 3. Foster environmentally sustainable development in the Tennessee Valley region.

TVA's integrated resource management approach focuses on balancing flood control, navigation, power generation, water quality, recreation, and land use needs to obtain the optimum benefits for the people of the region. Land planning supports TVA's corporate strategic goals to be environmentally responsible, customer-driven, and growth-oriented by providing a framework for deciding the best use of TVA land toward continued implementation of the TVA mission.

This Plan will guide TVA resource management and property administration decisions on 2,578 acres of land around Melton Hill Reservoir that are under TVA stewardship and control. It identifies the most suitable uses for 159 parcels of TVA land, by providing areas for TVA project operations, sensitive resource management, natural resource conservation, industrial/commercial development, recreation, and residential access. The planned acreage is TVA fee-owned land and accounts for 193 miles of reservoir shoreline. It also categorizes residential access into three categories (managed residential, residential mitigation, and shoreline protection) in accordance with the Shoreline Management Initiative EIS.

#### Process

Land planning is a systematic method of identifying and evaluating the most suitable use of the land. It uses resource data, computer analysis, and input from the public, other agencies, and TVA staff to allocate land to clearly defined zones (see Part 3, Land Use Allocations for zone definitions):

- Non-TVA Shoreland (e.g., flowage easement land)
- TVA Project Operations
- Sensitive Resource Management
- Natural Resource Conservation
- Industrial/Commercial Development
- Recreation
- Residential Access

TVA land management plans have a 10-year planning horizon. The Plan was developed by a team of land managers and technical experts, knowledgeable about the reservoir and its resources. A list of the planning team members is provided under the Parcel Allocations Section. The planning team made land use decisions by integrating facts about agency and public needs, environmental conditions, and economic benefits. The process includes:

- Identification of existing landrights. All "committed lands" (parcels with existing commitments through transfers, leases, licenses, contracts, and TVA projects) are automatically allocated to the designated use. No new field data is collected on such parcels.
- Compilation of existing resource data for all reservoir land.
- Field collection of new resource data for federally mandated categories (i.e., sensitive resources such as wetlands, threatened and endangered species, and archeology/historical) on "uncommitted" land—e.g., land with no prior commitments, as defined above.
- Allocation of all land with identified sensitive resources (from existing and new data) to the Sensitive Resource Management Zone.
- Identification of issues and concerns about TVA reservoir land from the public and other local, state, and federal entities.
- Analysis of land capability and suitability by TVA resource managers based on rating/ranking of parcels for specific land uses.
- Initial allocation of uncommitted parcels by the TVA Land Planning Team based on public input and TVA land needs justification (capability rating/ranking analysis).
- Development of a draft environmental assessment and Plan based on proposed allocations.
- Internal and external review of the draft environmental assessment and plan.
- EA/Plan revisions.
- Approval of final Plan by TVA Board of Directors.

Over the years, TVA has refined its land planning process to improve the efficiency of planning and the flexibility of the product. The land planning process is currently conducted under National Environmental Protection Act (NEPA) regulations that call for environmental review of federal actions having the potential to impact the environment.

Reservoir land planning uses TVA's Geographic Information System (GIS) automated landrights database to identify ownership patterns for TVA land to be planned. All new data collected during the planning process is stored in the GIS system. Stored data is retrieved and analyzed by the system. Plan maps and other reports are generated by GIS.

# **Regional Overview**

#### MELTON HILL RESERVOIR REGIONAL OVERVIEW

Melton Hill Reservoir is located within the portion of the Tennessee River Valley known as the Clinch-Powell area. This area falls entirely within the southern Appalachian Region, which includes the Blue Ridge Mountains section and the eastern Ridge and Valley section. The southern Appalachia region is characterized by rugged topography, abundant rainfall, and a multitude of native plant and animal species. The amount of public national forest and park land in southern Appalachia is greater than anywhere east of the Mississippi River. Almost three-fourths of the land is forested.

#### The Past

It is believed that humans occupied this land at least 12,000 years ago. The population was probably nomadic and then developed a seasonal strategy of subsistence on plant and animal resources. The abundant natural resources of the region provided a diverse source of food which included deer, nuts, fruits, a variety of small animals, fish, and shellfish. Between 8,000 BC and about 500 BC there are signs of increased population, settlement, and trade among regions. By 500 BC settled village life had developed evidenced by cultivated plants, houses, pottery, and burial mounds. By 1,500 AD, there is evidence of developed social structure with town centers, domicillary mounds, some fortified villages, an elite class, as well as smaller and scattered communities.

Southern Appalachia was occupied by the Cherokee nation. Cherokee territory extended throughout southern Appalachia and included parts of Virginia, North Carolina, Kentucky, Tennessee, Georgia, and South Carolina. There is record of at least 43 towns just before the outbreak of the Revolutionary War. Their society was gradually penetrated, constrained, and eventually removed by white Europeans whose livelihood was based in capitalism.

One of the oldest historical sites in the region is the Cumberland Gap. This natural pass had long been known as the gateway to the West, since it afforded access across the forbidding Allegheny Ridge, which had barred the passage of colonists, to the Northwest Territory. Indians and settlers made heavy use of the pass, and the trails they followed became known as the Warriors Path, the Wilderness Trail, and the Wilderness Road.

This region was settled principally by Anglo-Saxon pioneers from Virginia and North Carolina soon after the establishment of the Wilderness Road as a pioneer route. Daniel Boone came through the Cumberland Gap in the late 1760s. As the colonists headed westward, some settled here and farmed the fertile lands along these rivers. General James White moved to the site of Knoxville from above the junction of the French Broad and Holston in 1786, and called his dwelling White's Fort. Governor Blount, Governor of the Territory South of the River Ohio, selected White's Fort as the seat of government in 1791, but changed the name to Knoxville, in honor of General Henry Knox, Secretary of War to Washington. Knoxville was the state of Tennessee's capital from 1796, the time of its admission to the Union, until 1812 by authority of the state constitution and at intervals until 1817 under acts of the General Assembly.

Clinton, Tennessee, in Anderson County, is situated on the Clinch River, approximately 60 miles above the junction of the Clinch with the Tennessee River at Kingston. Hunters are known to have spent a year and a half in the surrounding country about 1761, and Indians used the land as a camping ground until shortly after 1800. The county was settled in 1800 and established by the General Assembly of Tennessee in November 1801. Commissioners named in the act laid out a town for the county seat; namely Burrville, in honor of Aaron Burr. However, after Aaron Burr's fatal wounding of Alexander Hamilton in a duel, and his involvement in the Western colonization scheme, the town of Burrville in 1809 changed its name to Clinton in honor of DeWitt Clinton.

The early 1800s saw the extension of commerce, growing settlements, and the development of transportation. In 1805 a cotton gin was operating in Knoxville and by 1830 Knoxville had a population of 1,500. Knoxville's industries at that time included two spinning factories, two gins and carding machines, four grist mills, three saw mills, and one brass foundry. When steamboats began using the upper section of the river, Knoxville became the head of steamboat navigation on the Tennessee River while Clinton became the head of steamboating on the Clinch River. Quantities of lumber, the principal export from the Clinch Valley, were floated down from Virginia on rafts and flatboats.

Railroad service in Tennessee began in 1851, but it was not until 1856 that rails were laid in Anderson County. The Knoxville and Kentucky Railroad Company (K & K) began a line northward from Knoxville which would extend to the Kentucky boundary. Tracks were laid from Knoxville to the south bank of the Clinch River at the outbreak of the Civil War. All work on the railroad stopped when the war began.

Although the area was not affected by major Civil War battles, mixed loyalties among residents and alienation among families took a heavy toll. Union sentiment was strong in this area. The close of the Civil War found the Nation faced with new social, economic, and political problems. The returning southern soldier faced the necessity of a reorientation of his political and economic policies, since the systems with which he had been familiar were uprooted and destroyed by the war. The agricultural economy, which had furnished his principal means of livelihood, had to be regeared to a system of free labor. Other pursuits that he had gradually developed before the war, as complements to agriculture and some of the war industries, had to be reestablished under a changed economic and social order. Transportation facilities, too, had largely broken down and had to be rebuilt, expanded, and enlarged.

Soon after peace was restored, coal mining developed as a prominent industry because of the rich coal deposits found in the surrounding mountains. By 1870 commerce and industry were on the upswing in the region. The development of the area's vast coal lands and the building of railroads went hand-in-hand, each dependent on the other. The coal operators had to have means of transportation for their product; the prospect of large coal shipments by rail assured the railroad promoters there would be sufficient revenue from that source alone to justify building a line through the coal region. Area mining companies included the Knoxville Iron Company, the Black Diamond Coal Company, and the Coal Creek Mining and Manufacturing Company. In addition to coal mining, an important source of income to many in the region was Clinch River pearls. In fact, Clinton became the center of the pearling industry for this area. The Knoxville and Ohio Railroad took over the K & K line and began building branch lines to connect with natural resources.

Industrialization continued into the new century as new businesses moved into the area. For example, in November 1905 a new industry was started in Clinton—the Magnet Knitting Mills—manufacturers of men's knit socks. Magnet became one of the largest hosiery mills in the South. Other regional industries included the Bush Brothers Canning Company which opened in July 1923. Besides economic opportunities, the 1920s brought such advantages as free mail delivery, telephone service, and electricity to parts of the region. The brisk development of the decade was brought to and end, however, by the Great Depression.

The Depression gloom was lightened immensely in 1933 by the news of the creation of the Tennessee Valley Authority (TVA) which provided work for many in the region. WWII led to the construction of the city of Oak Ridge, the other major urban area in the vicinity of Melton Hill Reservoir. This unique city was the subject of much speculation in 1943 when construction was thought to be anything from a synthetic rubber plant to a secret White House. Actually, behind the fences and guards, workers were constructing plants for obtaining U235 for use in atomic weapons. As a result of the enormity of the project, a new city was created in the midst of a federal reservation to provide housing and services for thousands of employees at the Clinton Engineering Works. Born of mud, hardship, and secrecy, Oak Ridge was destined to grow into a city of 75,000 in just three years. It was not until after the attacks on Hiroshima and Nagasaki that people from outside the immediate area even knew of the city's existence. The secrecy surrounding construction of the Oak Ridge facilities is one of the outstanding accomplishments of World War II. On March 19, 1949, the gates to the reservation were opened, followed by the sale of property to individuals, and finally the incorporation of the city in 1959.

Industries that have come into the Melton Hill region since WWII include Allied Structural Steel Company, Armstrong Rubber Company, Fish Hatchery, Parkway Furniture Corporation just to name a few. Following the national trend, the area has grown more urban and industrial post WWII. For example, in 1940, Clinton had a population of 3,000 and Oak Ridge did not even exist. However, by 1960 population figures show Clinton with 5,000 people while Oak Ridge had 27,000 residents.

The post-War baby boom created need for more schools in the 1950s and 1960s. In the late 1970s, completion of Interstate highways through the area not only improved accessibility for travelers, business persons, and local residents, but stimulated more development. Homes "out in the county," neighborhood shopping centers, fast food outlets, shopping plazas, office parks, and scattered residential subdivisions became more accessible and demanded even better roads.

#### The Project

Melton Hill Dam is a multipurpose project that added to the orderly development of the Tennessee River system of dams and reservoirs. These dams and reservoirs were part of a bold plan for the unified development of the Tennessee River system recommended to Congress by TVA in 1936. The concept included plans to develop a 9-foot (2.7m) navigable channel extending from the mouth of the river near Paducah, Kentucky, to Knoxville, Tennessee, a distance of 650 miles.

The proposed system would include nine main-river, multipurpose dams and three or more tributary storage dams. The system would contribute substantially to the control of floods on the Tennessee, lower Ohio, and lower Mississippi Rivers and provide many related benefits, including a large supply of electric power. The Melton Hill Project would extend the navigable channel of the Tennessee River system up the Clinch River about 38 miles to Clinton, Tennessee, and provide additional hydroelectric generating capacity to help meet continued growth in demand. The dam would not operate for flood control.

Melton Hill Dam was named for Melton Hill, a high knob near the dam on which the U.S. Coast Guard and Geodetic Survey established a triangulation station in 1884. Although

construction of Melton Hill was proposed in 1957, possibility of extending navigation up the Clinch by building a dam at the Melton Hill site had been included in U.S Army Engineers and TVA studies and plans since the early 1920s. Work on Melton Hill Dam started September 6, 1960. Construction was completed May 1, 1963, and the lock was placed in operation June 10, 1963.

The Melton Hill Project involved more than construction of the dam and lock. It involved the assembly of land in Anderson, Loudon, Knox, and Roane Counties. To make way for the reservoir, other project activities included surveying, mapping, clearing the reservoir area, removal of a bridge, and relocating buildings, roads, cemeteries, power and telephone lines, and families.

Melton Hill Reservoir was filled to an elevation of 795 feet above sea level in May 1963. The reservoir is generally narrow with several broad areas. At maximum pool level, it extends 44 miles from the dam with a maximum width of 0.8 miles. Its surface area is approximately 5,690 acres and the main shoreline at full pool is 193 miles long. The reservoir lies in an area of irregular terrain with mostly rugged topography including steep hills and bluffs along its lower downstream portion. The upper portion includes broad valleys satisfactory for waterfront industrial use. The lake as a whole is an attractive body of water, easily accessible to residents of Oak Ridge, Kingston, Lenoir City, Clinton, and Knoxville.

Melton Hill Reservoir provided a new source of recreation for the area. The management of water levels by TVA provides a reliable and predictable water level for seasonal recreation. Melton Hill Reservoir is conveniently accessible to area residents and provides an attractive site for new or second home development and lake cottages.

#### The Present Shoreland

Today, there are approximately 2,578 acres of Melton Hill Reservoir shoreland on which the TVA can plan future uses. This land includes about 193 miles of shoreline.

Land along the right descending bank (54 miles of shoreline) of Melton Hill Reservoir between the dam and Solway Bridge is controlled by the U.S. Department of Energy (DOE) and restricted from public use. The left bank adjoins the northwest portion of Knox County, the County's most rapidly growing sector. A large proportion of the area near the reservoir is vacant, agricultural, and rural residential land. The reservoir land on the left descending bank includes three county parks, one commercial dock, one TVA-developed multipurpose area at the dam reservation, and four public access areas. Single-family residential development exists adjacent to the reservoir in the vicinity of the Pellissippi Parkway and its crossing of the reservoir at Solway. The reservoir land upstream from the Solway Bridge is located in Anderson County and includes moderate urban residential development, one commercial dock, three city parks (including the 800-acre Haw Ridge area), and seven public access areas. Other shoreland uses include the University of Tennessee Arboretum at Oak Ridge, TVA's Bull Run Coal-fired Power Plant reservation, and the Carden Farm and Eagle Bend Industrial lands at Clinton. This portion of the reservoir extends from the eastern section of the city of Oak Ridge 10 miles upstream to the city of Clinton. Between these two cities the reservoir is surrounded by land that is made up of forested ridges, rural areas used for farming, and interspersed with single family residential uses.

Since 1990, several trends and issues have emerged that will indirectly affect Melton Hill Reservoir's future. Implementation of federal policies to eliminate or reduce the size of defense-related and energy facilities are already having an impact on the area's

economy. Reindustrialization and community transition efforts are underway to soften the effects of change. Investigation and remediation of serious environmental contamination at the Oak Ridge facility continues. Potential contamination at an old Anderson County landfill located near the reservoir is being investigated by the State of Tennessee.

A new role for the reservoir--as a resource in stimulating tourism development-- has been emerging in recent years. This is due largely to the attractiveness of both an improved trout fishery upstream from the reservoir just below Norris Dam and a section of the reservoir used for team rowing competition and training. Also, residential patterns on Melton Hill Reservoir have begun to shift. New middle and upper income residential subdivisions are replacing farmland acreage and altering scenic vistas. Modest lakefront cottages are being converted and remodeled into larger structures.

#### The Future

Recent trends within the southern Appalachia region provide us with a glimpse of the kind of pressures that will bear on Melton Hill Reservoir in the future. Long-term shifts in the regional economy, social trends, broad shifts in recreational behavior, along with current and anticipated environmental issues, combine to frame a picture of the challenges ahead and what it will take to protect places like Melton Hill Reservoir.

The population of Anderson, Knox, Loudon, and Roane Counties grew from 399,740 in 1970 to an estimated 523,250 in 1997. With increases in population, there has been expansion of urban and suburban areas into what were formerly rural areas, and an increase in the demand for recreational activities. Population for this area is projected to grow to about 585,000 by the year 2010—and 776,000 by 2050.

Continued growth and development will place increased demands on the reservoir. Extension of water service to areas of northwest Knox County and eastern Anderson County will accelerate growth and development in the coming years, as will the planned upgrading of highways. Two planned efforts, in particular, will most likely stimulate additional development within the next 20 years that will result in conversion of land uses from rural to urban and highly impact Melton Hill Reservoir shoreland uses. These are continued efforts to attract technology-based industries to locate within or near the Pellissippi Corridor and proposed construction of a new limited access highway--the Northwest Bypass--linking Interstate 75 north of Knoxville with Interstate 40 west of Knoxville.

Melton Hill Reservoir shorelands are part of local plans to expand parks and greenways in Knox County and greenways in Oak Ridge. Such efforts help conserve and link functional open spaces and provide for public access, recreation, and enjoyment. They also place high value on protecting unique environmental features such as those found on Melton Hill Reservoir shorelands and can help reduce some of the pressures that continued growth will bring to Melton Hill Reservoir.

Trends affecting Melton Hill Reservoir mirror those of the larger region of which it is a part. The current population of the southern Appalachian region is better educated, older, and has a higher net income than 20 years ago. More people throughout the region are moving out of urban areas and commuting to work. There is increased demand for real estate that includes attributes associated with a leisurely, rural life-style but affords access to the benefits of a metropolitan area. Thus, development pressures on lake-front properties a short distance from urban centers can be very high.

Respondents to a 1997 survey on Melton Hill Reservoir uses and land management were asked to report their preferences for future shoreline use allocation. A high proportion preferred reducing industrial development while keeping residential, commercial, and recreational development steady and increasing resource management, informal recreation, and preservation areas. Respondents also requested that priority be given for hiking trails, informal and public recreation areas, management of habitats, erosion control, water quality, boat ramps, and the preservation of natural areas, cultural artifacts, endangered species, public land with unique features, historic sites, and wetlands.

The most significant trend in recreation is an increase in both numbers of participants and the diversity of activities. The percentage of the population that participates in recreational activities such as fishing, camping, and hiking has remained stable. Future population changes are expected to result in major growth in less physically demanding activities, such as pleasure driving, sightseeing, nature and cultural resource study, and developed camping. Increased pressure on nature-based recreation settings and facilities is also expected in the future. Urban, suburban, and transitional settings where development is emerging are expected to increase at the expense of existing rural or natural-appearing settings. Public land will have to supply a larger portion of naturebased outdoor recreation opportunities as settings and opportunities on private land decline. Without better cooperation between public and private sectors, key natural and cultural settings on TVA land may be negatively affected by increasing density of development.

Environmental quality issues will become increasingly important as population and demands on the environment increase. The Southern Appalachia region has more species of native plants, animals, and insects than any other region with a similar climate in North America. The high mountains and abundant streams and rivers create a variety of habitat types that support thousands of species, many of which occur only in this region. Land that borders the streams, rivers, and water bodies in the valleys is a significant contributor to this regional diversity. Riparian zones--strips of land bordering water bodies--are characterized by many different native species often occurring as dense populations. Poor land-use practices near the water and reductions in wetlands areas can threaten both this diversity of species and water quality. In southern Appalachia, generally land conversion, reducing large areas of forest into smaller patches (known as forest fragmentation), invasions of nonnative pest species, air and water pollution, and other human-caused stresses are having an impact on these native sources.

Nonnative insect, disease, and plant and animal species—such as the gypsy moth, dogwood anthracnose, the zebra mussel, and hydrilla—are impacting the region. Some of the most pressing air quality issues relate to ground-level ozone, visibility, and acid rain. Land management or human activities adjacent to streams, rivers, and lakes can increase erosion into the aquatic system and lead to sedimentation, alter the natural shape of stream channels, change water chemistry, and impact aquatic organisms.

Two-thirds of reported water quality impairments within the Southern Appalachian region are from nonpoint sources such as septic tanks, agricultural runoff, stormwater discharges, and landfill and mining leachate. Agricultural impacts due to runoff containing commercial fertilizer, animal manure, and pesticides are greatest where slopes are greater than 3 percent and where agricultural operations are immediately adjacent to water bodies. Highways, especially those close to or crossing waterways, impact water quality in a number of ways. Capital investments in municipal and industrial wastewater treatment processes, since the adoption of the Clean Water Act in 1972, have resulted in significant improvements in the quality of point-source discharges into waterways and, in turn, have reduced water pollution. As growth continues, further improvements will be necessary. Increases in the amounts of water withdrawn from surface water bodies for use can have downstream impacts on the quality of water.

Melton Hill Reservoir is a unique resource that can be enjoyed by many future generations. However, for it to be enjoyed in the future, it must be able to accommodate increased demands that are placed upon it or some of those demands must be curtailed. How Melton Hill Reservoir can best accommodate these increased demands will depend on the actions of government, business and civic leaders within the region, those who come to enjoy Melton Hill Reservoir for whatever purpose, and those who own the land on or near its shoreline.

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

# Land Planning Goals and Objectives

#### MELTON HILL RESERVOIR LAND PLANNING GOALS AND OBJECTIVES

As previously stated, TVA's land management mission is to provide for customerfocused and value-add stewardship of TVA land and natural resources in order to:

- \* Fulfill TVA's integrated resource management mission;
- \* Manage the Tennessee River watershed and protect the reservoir system; and
- \* Foster environmentally sustainable development in the Tennessee Valley region.

This Plan focuses on TVA's mission by setting several goals.

- **TVA projects goal:** To maintain TVA facilities for flood control, navigation and power production and transmission.
- Resource management goal: To manage TVA land for the enhancement of natural resources for human appreciation and use and to protect sensitive resources.
- Economic development goal: To manage TVA lands to complement the region's economic development activities.
- Recreational goal: To manage TVA lands for recreation activities.
- Residential access goal: To manage TVA land consistent with the decision in SMI.

Land planning objectives for Melton Hill Reservoir were developed by the Melton Hill Land Management team, using lake user and TVA staff input received during the scoping process. *Scoping* is the issue-gathering phase of the environmental review process. The following objectives were used to allocate TVA land on Melton Hill Reservoir. They reflect the public's interest in Melton Hill Reservoir and TVA's desire to manage TVA land on Melton Hill Reservoir in the public's best interest. These objectives are consistent with TVA's mission and its land planning goals.

#### 1. Consider impacts on water quality as a result of the Melton Hill allocations.

Water quality was the highest-ranking concern of respondents during the scoping process. Seventy-nine percent of respondents indicated that water quality should be a high priority. While the land allocations did not specifically allocate lands for water quality concerns, water quality would benefit from the Melton Hill Land Management Plan allocations. The Plan allocates 97 parcels, containing 1,895 acres, to both Sensitive Resource Management and Natural Resource Conservation Zones. These zones comprise 74 percent of the land on Melton Hill. This acreage is relatively consistent with previous land plans completed for mainstream reservoirs.

In some cases, these lands are large parcels, and in others they are only narrow strips between backlying residential or agricultural uses. These strips provide a buffer for the reservoir from runoff and pollution associated with activities on backlying land. TVA Water Management's River Action Team is actively participating in the Melton Hill watershed partnership which, along with other agencies and concerned citizens and organizations, attempts to identify water quality problems within the watershed and partners with one another to develop effective solutions.

#### 2. Consider the effects of erosion on Melton Hill Reservoir.

Concerns about erosion are also important to the users of Melton Hill Reservoir. Fifty-seven percent of the responses indicated that erosion control should be a high priority. While the land allocations did not specifically allocate lands for erosion control, erosion control quality would benefit from the Melton Hill Reservoir Land Management Plan allocations. Allocations to Sensitive Resource Management and Natural Resource Conservation, as previously mentioned in the Water Quality objective, lessen impacts to the shoreline. Of the total 193 miles of shoreline on Melton Hill Reservoir, 81 miles of shoreline fall within these two zones.

One important component in controlling erosion is maintaining a woody vegetation zone near the water's edge. This vegetated/forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. This land allocation maintains woody vegetation along much of the TVA shoreline. TVA has identified 21 high priority erosion sites (5 miles of shoreline) on Melton Hill Reservoir. In addition, our assessment identified 43 more sites (13 miles of shoreline) considered to have moderate erosion. Using bioengineering—and, as necessary, a combination of bioengineering and structural means—TVA has corrected four high-priority sites (1.3 miles of shoreline) on Melton Hill Reservoir.

#### 3. Ensure that a balance of biological, cultural, recreational, and economic resources are considered and analyzed for all decisions made regarding allocations of TVA land.

To help meet this objective, an interdisciplinary team (IDT) of specialists participated in the planning process, applying expertise and varied backgrounds toward the assessment of land use capability and suitability. Public input was also important in deciding on the proper balance of resource and land allocation. The IDT carefully took into account existing uses of committed or previously conveyed lands.

The range of potential land use allocation zones provides a basic structure to achieve balance among recommended uses for TVA Project Operations (11 percent); Sensitive Resource Management (50 percent); Natural Resource Conservation (24 percent); Industrial/Commercial Development (1 percent); Recreation (8 percent); and Residential Access (6 percent).

The primary focus of public input during the scoping process has centered on increasing land for resource management (59 percent of respondents); informal recreation (73 percent of respondents); and preservation (63 percent of respondents).

Since industrial development was an original primary project purpose for Melton Hill Reservoir, substantial amounts of land have been conveyed to local governments for industrial park development. During scoping, 76 percent of public input responses indicated either "about the right amount" or "too much" land was devoted to industrial purposes. As of January 1997, there were approximately 1,381 acres remaining (out of 3,751 acres) for industrial development adjacent to the reservoir and in communities near the reservoir. In addition, a new 1,000-acre industrial park has been planned in Roane County, just west of Oak Ridge. Due to existing sites previously sold for industrial purposes and land currently available for growth and expansion, additional land has not been allocated for industrial use in this Plan.

#### 4. Recommend allocations that are compatible with TVA's obligations under the TVA Act and other federal laws and presidential executive orders (i.e., protecting sensitive resources on TVA land).

In making allocations, TVA paid particular attention to threatened and endangered species, cultural resources, wetlands, unique habitats, natural areas, and distinctive visual resources. During the public scoping process, respondents to the TVA questionnaire indicated that TVA should place a high priority on protection of these resources. The Plan identifies 58 parcels containing 1,276 acres of land with cultural, wetlands, significant natural areas, resources, habitat protection areas, and distinctive visual resources. To protect the sensitive resources, all of these parcels of land are allocated to the Sensitive Resource Management Zone. These parcels may be used for other purposes, such as informal recreation opportunities and natural resource conservation activities; however, protection of the sensitive resource would be the primary management criteria when considering other compatible land uses for the parcel.

Each parcel has been reviewed to ensure the recommended allocations are consistent with TVA's obligations under NHPA, ARPA, Wetlands Protection and Floodplain Management Executive Orders, and the Endangered Species Act.

There were some new sensitive resources identified on areas with existing residential access. In these cases, future requests for water-use facilities or other land-disturbing activities must first be carefully evaluated to avoid adverse impacts.

#### 5. Ensure public access for informal and recreational activities.

During the scoping process, 73 percent of respondents felt more land was needed to support informal recreation. A high priority was placed on hiking trails, informal and public recreation areas, and boat ramps. The Plan allocates 620 acres (24 percent of land) to Natural Resource Conservation Zone, which includes informal recreation as a component and compatible use. Over the years, TVA has transferred or sold land for recreation purposes. Also, 216 acres (8 percent of total acreage) is allocated for Recreation purposes.

#### 6. Manage TVA land to provide benefits to wildlife species.

TVA places a high priority on managing its land for wildlife species. Fifty-nine percent of the survey respondents indicated that more land should be allocated to resource management. The results revealed that deer, turkey, and squirrel are the preferred species for hunting and that songbirds, waterfowl, and deer are the most popular species for viewing. The Plan allocates 39 parcels, containing 620 acres, to Natural Resource Conservation. In addition, there are 58 parcels of land totaling 1,276 acres allocated to the Sensitive Resources Management

Zone. This land will also provide for wildlife habitat and informal recreation opportunities such as hunting and viewing wildlife.

#### 7. Conserve undeveloped TVA lands.

During the scoping process, 63 percent of respondents felt that more TVA land was needed for preservation, in contrast with only 10 percent who indicated more land was needed for residential shoreline development.

The Melton Hill allocations meet this objective and those of the SMI Blended Alternative by maintaining shoreline development to those areas currently available for development. Twenty-nine parcels were zoned Residential Access for a total of 151 acres (23 miles of shoreline).

### 8. Continue good communication with peer agencies like TWRA, TDEC, and DOE.

We will continue to work together and partner with agencies such as TWRA, TDEC, and DOE. An example of this continued communication is the briefing of DOE officials on the land planning process and its relationship to 54 miles of shoreline currently owned by DOE. TVA will remain in contact with DOE regarding any land use changes they might entertain in the future.

### 9. Maintain residential development in areas that are currently available for access.

In cases where water-use facilities were previously approved by TVA in zones other than 7, Residential Access, they will be allowed to be maintained at their approved size. However, requests to expand these facilities or to construct additional facilities will not be considered.

### 10. Consider parcels of land where acquisitions and disposals of land might be feasible.

Seven areas are identified where rights are needed to access TVA property. Currently, permission is obtained from adjacent private property owners to gain access to these parcels. The purchase of an easement or fee ownership could assure continued access to these areas in the future. Two parcels were identified that could be considered for disposal due to their remote locations. Neither of these parcels have known sensitive resources present.

The criteria used to select potential tracts for TVA land acquisition are as follows:

(a) Environmentally sensitive tracts or those with unique natural and cultural resources.

(b) Tracts owned by a willing seller or landowner who would be receptive to entertaining an offer from TVA rather than pursuing condemnation procedures.

(c) TVA-retained land that presently has no legal public access. Obtaining road access to these tracts would expand management options and increase public benefit.

(d) Inholdings or contiguous tracts of land that would enhance unified land management opportunities and decrease potential land use conflicts by connecting parcels of TVA fee-owned property. (e) Tracts with repurchase options as stated in contract agreements, if the property has not been developed in accordance with the terms of the deed.

The criteria TVA uses to select potential tracts for possible sale or transfer are as follows:

- (a) Tract size (acreage) and condition (land use/land cover).
- (b) Tract location (isolated from the lake or a major tributary).
- (c) Level of TVA interest in the tract.
- (d) Poor tract capability and/or suitability (based on TVA criteria).
- (e) Accessibility by land (poor or nonexisting road access).
- (f) Tracts currently owned by TVA that have physical site limitations and cannot accomplish desired resource management goals or realize the property's full potential.

## **Parcel Allocations**

#### PARCEL ALLOCATIONS

#### **Allocation Team Participants**

The Melton Hill Reservoir allocation meeting was held on September 26 and 29, 1997. Participants included:

Akers, Steven L. - TVA Land Management (Tellico), Lenoir City Becker, Pat R. - TVA Land Management (Melton Hill), Lenoir City Boardman, May - TVA Land Management, Norris Boardman, Spencer - TVA Land Management, Norris Cottrell, Stephen D. - TVA Land Management, Norris Curtin, Dennis, - TVA Land Management, Norris Draper, Harold M.- TVA NEPA Administration, Knoxville Edmondson, Frank B. (Bucky) - TVA Land Management, Kingsport Farrell, Robert G. (Woody) - TVA Land Management (Melton Hill), Lenoir City Horton, Ruth - TVA Synterprise Group, Knoxville James, Wesley K. - TVA Land Management, Lenoir City Knight, Glenn - TVA Land Management (Melton Hill), Lenoir City Ledford, William S. (Scott) - TVA Land Management (Melton Hill), Lenoir Citv McCreedy, Mark M. - TVA Land Management (Melton Hill), Lenoir City Pearl, Laurie - TVA Land Management, Morristown Pounds, Larry - Botany Specialist, Contractor, Norris Rauch, Eric - TVA Land Management, Knoxville Robinson, Catherine - TVA Land Management (Melton Hill), Lenoir City Rosensteel, Barbara - Wetlands Specialist, Contractor, Norris Torbett, Helen - TVA Land Management (Melton Hill) Lenoir City Yarnell, Richard - TVA Cultural Resources, Norris

#### Allocation Process

During the allocation meeting, the characteristics of each parcel (i.e., location and existing conditions) were discussed. As explained in the Introduction to this plan, the allocation team honored all existing commitments—that is existing leases, licenses, and easements. Land with identified sensitive resources was placed in the Sensitive Resource Management Zone. Allocation to Residential Access was based on Shoreline Management Initiative data. The remaining parcels were allocated based on reservoir planning objectives and TVA-requested land uses, which were developed with public input. Decisions were made by consensus. Unresolved issues were tabled for further research and discussion. Final allocation decisions were made by the team leader.

During the allocation meeting, the planning team allocated the TVA land to one of seven planning zones defined as indicated in Table 1.

Table 1 - Proposed Land Use Allocations for the Melton Hill Reservoir Land		
Management Plan. (The highlighted parcels were committed early in the land planning		
process due to existing commitments or sensitive resources.)		

Parcel	Proposed Land Use Zone	Acres
	2- Project Operations	250.0
2	7 - Residential Access	2.2
3	3 - Sensitive Resource Management	5.4
4	7 - Residential Access	3.8
5	3 - Sensitive Resource Management	3.3
6	4 - Natural Resource Conservation	2.3
7	3 - Sensitive Resource Management	10.1
8	4 - Natural Resource Conservation	4.3
9	2-Project Operations	2.7
10	4 - Natural Resource Conservation	182.7
11 3	3 - Sensitive Resource Management	62.4
12	3 - Sensitive Resource Management	24.0
13	4 - Natural Resource Conservation	6.1
14	6 - Recreation	1.7
15	3 - Sensitive Resource Management	13.3
16	6 - Recreation	6.3
17	4 - Natural Resource Conservation	1.0
18	7 - Residential Access	0.5
19	4 - Natural Resource Conservation	1.2
20	7 - Residential Access	4.2
21	6 - Recreation	51.8
22	3 - Sensitive Resource Management	12.6
23	7 - Residential Access	4.2
24	3 - Sensitive Resource Management	14.2
25	7 - Residential Access	10.7
26	2 - Project Operations	1.9
27	4 - Natural Resource Conservation	2.6
28	3 - Sensitive Resource Management	0.7
29	7 - Residential Access	2.6
30	3 - Sensitive Resource Management	11,4
31	7 - Residential Access	11.4
32	3 - Sensitive Resource Management	3.0
33	7 - Residential Access	2.8
34	4 - Natural Resource Conservation	5.5
35	3 - Sensitive Resource Management	1.5
36	6 - Recreation	5.5
37	3 - Sensitive Resource Management	112
38	3 - Sensitive Resource Management	3.3
39	7 - Residential Access	4.1
40	3 - Sensitive Resource Management	99.1

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Parcel	Proposed Land Use Zone	Acres
41	7 - Residential Access	4.0
42	4 - Natural Resource Conservation	29.0
43	7 - Residential Access	3.1
44	4 - Natural Resource Conservation	2.6
45	6 - Recreation	3.8
46	4 - Natural Resource Conservation	0.3
47	7 - Residential Access	<u> </u>
48	3 - Sensitive Resource Management	8.5
49	4 - Natural Resource Conservation	4.7
50	7 - Residential Access	<u> </u>
51	6 - Recreation	0.7
52	7 - Residential Access	1.1
53	4 - Natural Resource Conservation	3.4
54	5 - Industrial/Commercial Development	0.1
55	5 - Industrial/Commercial Development	0.3
56	7 - Residential Access	0.5
57	4 - Natural Resource Conservation	9.8
58	7 - Residential Access	2.7
59	6 - Recreation	59.2
60	4 - Natural Resource Conservation	1.1
61	3 - Sensitive Resource Management -	1.7
62	3 - Sensitive Resource Management	16.3
63	7 - Residential Access	2.7
64	3 - Sensitive Resource Management	3.1
65	4 - Natural Resource Conservation	52.5
66	3 - Sensitive Resource Management	8.7
67	4 - Natural Resource Conservation	16.3
68	3 - Sensitive Resource Management	0.4
69	3 - Sensitive Resource Management	1.4
70	4 - Natural Resource Conservation	<u>14.0</u> 3.2
71	2 - Project Operations	0.9
72	3 - Sensitive Resource Management	6.6
73	7 - Residential Access	7.1
73A	4 - Natural Resource Conservation	20,1
74	2-Project Operations	30.5
75	3 - Sensitive Resource Management	<u> </u>
76	7 - Residential Access	7.5
77	4 - Natural Resource Conservation	0.05
78	2 - Project Operations	3.3
79	6-Recreation	4.8
80	7 - Residential Access	2.9
81	3 - Sensitive Resource Management	17.0
82	7 - Residential Access	16.1
83	3 - Sensitive Resource Management	<u> </u>

Parcel	Proposed Land Use Zone	Acres
84	6 - Recreation	11.4
85	2 - Project Operations	0.2
86	3 - Sensitive Resource Management	27.7
87	3 - Sensitive Resource Management	12.3
88	4 - Natural Resource Conservation	68.6
89	3 - Sensitive Resource Management	43.5
90	3 - Sensitive Resource Management	123.2
91	6 - Recreation	37.4
92	4 - Natural Resource Conservation	13.4
93	3 - Sensitive Resource Management	8.4
94	4 - Natural Resource Conservation	8.3
95	2 - Project Operations	0.5
96	3 - Sensitive Resource Management	12.4
97	3 - Sensitive Resource Management	1.5
98	3 - Sensitive Resource Management	127.4
99	3 - Sensitive Resource Management	109.9
100	4 - Natural Resource Conservation	<b>31.1</b>
101	2 - Project Operations	0.6
102	4 - Natural Resource Conservation	15.5
103	4 - Natural Resource Conservation	14.8
104	3 - Sensitive Resource Management	1.7
105	4 - Natural Resource Conservation	12.7
106	3 - Sensitive Resource Management	<b>3.7</b>
107	5 - Industrial/Commercial Development	6.1
108	3 - Sensitive Resource Management	77.5
<b>109</b>	3 - Sensitive Resource Management	20.3
110	7 - Residential Access	1.4
111	4 - Natural Resource Conservation	3.1
112	2 - Project Operations	113
113	4 - Natural Resource Conservation	3.3
114	3 - Sensitive Resource Management	33.0
115	6 - Recreation	18.2
116	3 - Sensitive Resource Management	3.0
117	7 - Residential Access	4.3
118	3 - Sensitive Resource Management	2.9
119	6 - Recreation	10.3
120	7 - Residential Access	2.7
121	3 - Sensitive Resource Management	211.3
122	7 - Residential Access	2.1
123	4 - Natural Resource Conservation	
124	3 - Sensitive Resource Management	2.0
125	4 - Natural Resource Conservation	22.3
126	3 - Sensitive Resource Management	1.9
127	7 - Residential Access	5.1

Parcel	Proposed Land Use Zone	Acres
128	3 - Sensitive Resource Management	0.4
129	4 - Natural Resource Conservation	5.3
130	3 - Sensitive Resource Management	2.8
131	4 - Natural Resource Conservation	3.0
132	3 - Sensitive Resource Management	1.1
133	2 Project Operations	2.2
134	3 - Sensitive Resource Management	7.3
135	2 - Project Operations	0.1
136	4 - Natural Resource Conservation	10.9
137	7 - Residential Access	6.2
138	6 - Recreation	4.4
139	2 - Project Operations	1,0
140	4 - Natural Resource Conservation	6.6
141	4 - Natural Resource Conservation	4.0
142	5 - Industrial/Commercial Development	3.7
143	3 - Sensitive Resource Management	38.7
144	4 - Natural Resource Conservation	28.1
145	3 - Sensitive Resource Management	2.0
146	3 - Sensitive Resource Management	174.2
147	4 - Natural Resource Conservation	4.4
148	3 - Sensitive Resource Management	0.9
149	3 - Sensitive Resource Management	20.2
150	4 - Natural Resource Conservation	3.0
151	3 - Sensitive Resource Management	17.9
152	3 - Sensitive Resource Management	24.7
153	5 - Industrial/Commercial Development	11.6
154	6 - Recreation	2.0
155	4 - Natural Resource Conservation	2.4
156	3 - Sensitive Resource Management	1.9
157	4 - Natural Resource Conservation	0.8
158	3 - Sensitive Resource Management	3.8

#### Planned Land Use Zone Definitions

During the allocations meeting, the planning team allocated the TVA land to one of six planning zones defined as shown in Table 2.

Table 2 - Planned Land U	se Zone Definitions
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	Zone	Definition	
1	Non-TVA Shoreland	Shoreland located above summer pool elevation that TVA does not own in fee or land never purchased by TVA. TVA is not allocating private or other non-TVA land. This category is provided to assist in comprehensive evaluation of potential environmental impacts of TVA's allocation decision. Non-TVA shoreline includes:	
		<ul> <li>Flowage easement land—e.g., privately or publicly owned land where TVA has purchased the right to flood and/or limit structures. Flowage easement land is generally purchased to a contour elevation.</li> </ul>	
		<ul> <li>Privately owned reservoir land—Including, but not limited to, residential, industrial/commercial, or agricultural.</li> </ul>	
2	TVA Project Operations	All TVA reservoir land currently used for TVA operations and public works projects includes:	
		<ul> <li>Land adjacent to established navigation operations—Locks, lock operations and maintenance facilities, and the navigation workboat dock and bases.</li> </ul>	
		<ul> <li>Land used for TVA power projects operations—Generation facilities, switchyards, and transmissions facilities and rights-of-way.</li> </ul>	
		<ul> <li>Dam reservation land—Areas used for developed and dispersed recreation, maintenance facilities, Watershed Teams, research areas, and visitor centers.</li> </ul>	
		<ul> <li>Navigation safety harbors/landings—Sites used for tying off commercial barge tows and recreational boats during adverse weather conditions or equipment malfunctions.</li> </ul>	
		<ul> <li>Navigation dayboards and beacons—Areas with structures placed on the shoreline to facilitate navigation.</li> </ul>	
		• <b>Public works projects</b> —Includes fire halls, public water intakes, and public treatment plants, etc. (These projects are placed in this category as a matter of convenience and may not relate specifically to TVA projects.)	
		<ul> <li>Land planned for any of the above uses in the future.</li> </ul>	

	Zone	Definition
3	Sensitive Resource Management	Land managed for protection and enhancement of sensitive resources. Sensitive resources, as defined by TVA, include resources protected by state or federal law or executive order and other land features/natural resources TVA considers important to the area viewscape or natural environment. Natural resource activities such as hunting, wildlife observation, and camping on undeveloped sites can occur in this zone; but the overriding focus is protecting and enhancing the sensitive resource the site supports. Areas included are:
		<ul> <li>TVA-designated sites with potentially significant archeological resources.</li> </ul>
		<ul> <li>TVA lands with sites/structures listed on or eligible for listing on the National Register of Historic Places.</li> </ul>
		<ul> <li>Wetlands, i.e., aquatic bed, emergent, forested, and scrub-shrub wetlands as defined by TVA.</li> </ul>
		<ul> <li>TVA land under easement, lease, or license to other agencies/individuals for resource protection purposes.</li> </ul>
		<ul> <li>TVA land fronting land owned by other agencies/individuals for resource protection purposes.</li> </ul>
		<ul> <li>Habitat Protection Areas—These are areas managed by TVA to protect populations of species identified as threatened or endangered by the U.S. Fish and Wildlife Service (FWS), state-listed species, and any unusual or exemplary biological communities/geological features.</li> </ul>
		<ul> <li>Ecological Study Areas—These are designated areas that are suitable for ecological research and environmental education by a recognized authority or agency. Areas typically containing plant or animal populations of scientific interest or which are of interest to an educational institution that would utilize the area.</li> </ul>
		<ul> <li>Small Wild Areas—These are areas managed by TVA or in cooperation with other public agencies or private conservation organizations to protect exceptional natural, scenic, or aesthetic qualities that can also support dispersed, low-impact types of outdoor recreation.</li> </ul>
		• <i>River corridor with sensitive resources</i> —A river corridor is a linear greenspace along both streambanks of selected tributaries entering a reservoir managed for light boat access at specific sites, riverside trails, and interpretive activities. These areas will be included in Zone 3 when identified sensitive resources are present.
.		• <b>Significant scenic areas</b> —These are areas designated for visual protection because of their unique vistas or particularly scenic quality.
		Champion tree site—These are designated by TVA as sites that contain the largest known individual tree of its species in that state.

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	Zone	Definition	
3	Sensitive Resource Management (Cont'd)	<ul> <li>Other sensitive ecological areas—Examples of these areas include heron rookeries, nest colonies, and unique cave or karst formations.</li> <li>Land planned for any of the above uses in the future.</li> </ul>	
4	Natural Resource Conservation	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 harvest, wildlife observation, and camping on undeveloped sites. Areas included are: • <b>TVA land under easement, lease, or license</b> to other agencies for	
		wildlife or forest management purposes.	
		<ul> <li>TVA land fronting land owned by other agencies for wildlife or forest management purposes.</li> </ul>	
		<ul> <li>TVA land managed for wildlife or forest management purposes.</li> </ul>	
		<ul> <li>Informal recreation areas maintained for passive, dispersed recreation activities such as hunting, hiking, bird watching, photography, primitive camping, bank fishing, and picnicking.</li> </ul>	
		<ul> <li>Shoreline Conservation Areas—Narrow riparian strips of vegetation between the water's edge and TVA's backlying property that are managed for wildlife, water quality, or visual qualities.</li> </ul>	
		<ul> <li>Wildlife Observation Areas — Areas with unique concentrations of easily observed wildlife that are managed as public wildlife observation areas.</li> </ul>	
		• <i>River corridor without sensitive resources present</i> —A river corridor is a linear greenspace along both streambanks of selected tributaries entering a reservoir managed for light boat access at specific sites, riverside trails, and interpretive activities. River corridors will be included in Zone 4 unless sensitive resources are present (see Zone 3).	
		<ul> <li>Islands of 10 acres or less.</li> </ul>	
		<ul> <li>Land planned for any of the above uses in the future.</li> </ul>	
5	Industrial/ Commercial	Land managed for economic development purposes. Areas included are:	
	Development	<ul> <li>TVA land under easement, lease, or license to other agencies/individuals for industrial or commercial purposes.</li> </ul>	
		<ul> <li>TVA land fronting land owned by other agencies/individuals for industrial or commercial purposes.</li> </ul>	

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	Zone	Definition	
5	Industrial/ Commercial	<ul> <li>Sites planned for future Industrial use. Types of development that can occur on this land are:</li> </ul>	
	Development (Cont'd)	<ul> <li>Business parks—TVA waterfront land which supports industrial or commercial development.</li> </ul>	
		<ul> <li>Industrial access         <ul> <li>Access to the waterfront by backlying property owners across TVA property for water intakes, wastewater discharge, or conveyance of commodities (i.e., pipelines, rail, or road). Barge terminals are associated with industrial access corridors.</li> </ul> </li> </ul>	
		<ul> <li>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.</li> </ul>	
		<ul> <li>Fleeting areas—Sites used by the towing industry to switch barges between tows or barge terminals which have both off-shore and on- shore facilities.</li> </ul>	
		<ul> <li>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.</li> </ul>	
		(Commercial recreation uses, such as marinas and campgrounds, are included in Zone 6.)	
6	Recreation	All reservoir land managed for concentrated, active recreation activities that require capital improvement and maintenance, including:	
		<ul> <li>TVA land under easement, lease, or license to other agencies/individuals for recreational purposes.</li> </ul>	
		<ul> <li>TVA land fronting land owned by other agencies/individuals for recreational purposes.</li> </ul>	
		<ul> <li>TVA land developed for recreational purposes such as campgrounds, day use areas, etc.</li> </ul>	
		<ul> <li>Land planned for any of the above uses in the future.</li> </ul>	
		Types of development that can occur on this land include:	
		<ul> <li>Commercial recreation, e.g., marinas, boat docks, resorts, campgrounds, and golf courses.</li> </ul>	
		<ul> <li>Public recreation, e.g., local, state and federal parks, and recreation areas.</li> </ul>	
		<ul> <li>Greenways—Linear parks located along natural features such as lakes or ridges, or along manmade features including abandoned railways or utility rights-of-way, which link people and resources together.</li> </ul>	

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	Zone	Definition	
6	Recreation (Cont'd)	<ul> <li>Water access sites, e.g., boat ramps, courtesy piers, canoe access, fishing piers, vehicle parking areas, picnic areas, trails, toilet facilities, and information kiosks.</li> </ul>	
7	Residential Access	TVA-owned lands where Section 26a applications and other land use approvals for residential shoreline alterations are considered. Requests for residential shoreline alterations are considered on parcels identified in this zone where such use was previously considered and where the proposed use would not conflict with the interests of the general public. Under the Plan, residential access would be divided into three categories based on the presence and potential impacts to sensitive ecological resources such as endangered or threatened species, wetlands, and archaeological and historic sites. The categories are: (1) Shoreline Protection, where no residential alterations would be permitted; (2) Residential Shoreline Mitigation, where special analysis would be needed; and (3) Managed Residential Shoreline, where no known sensitive resources exist. Types of development/management that can occur on this land are:	
		<ul> <li>Residential water-use facilities, e.g., docks, piers, launching ramps/driveways, marine railways, boathouses, enclosed storage space, and nonpotable water intakes.</li> </ul>	
		<ul> <li>Residential access corridors, e.g., pathways, wooden steps, walkways, or mulched paths which can include portable picnic tables and utility lines.</li> </ul>	
		<ul> <li>Shoreline stabilization, e.g., bioengineering, riprap and gabions, and retaining walls.</li> </ul>	
		<ul> <li>Shoreline vegetation management on TVA-owned residential access shoreland.</li> </ul>	
		<ul> <li>Conservation easements for protection of privately owned shoreline.</li> </ul>	
		Other activities, e.g., fill, excavation, grading, etc.	

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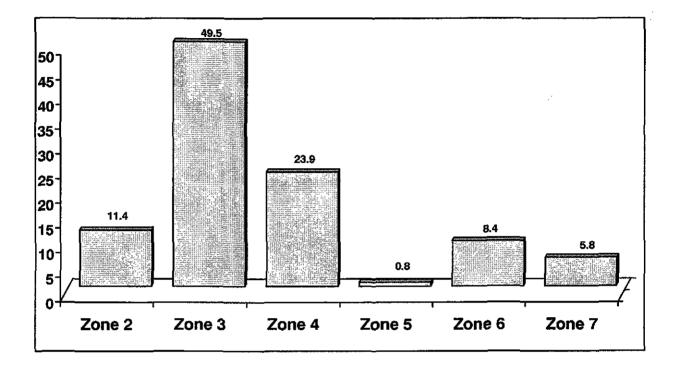


Figure 1. Melton Hill Reservoir - Land Management Plan -Percent of Land Allocated by Zone

## Parcel Descriptions [See Exhibit 2 (Plan) maps]

## Parcel 1 - (250.0 Acres)

## Zone 2, TVA Project Operations

Located on both the right and left banks of Clinch River mile (CRM) 23.5, this parcel begins at the Highway 95 Bridge. Known as the Melton Hill Dam Reservation, it includes the Melton Hill Dam facilities, visitor center, visitor overlook, TVA police office, boat launching ramp and parking lot, swimming beach, three picnic pavilions, and a 56-site campground with two toilet buildings. It is used extensively by fishermen, campers, sunbathers, and joggers. The northern portion (right bank) of this parcel was transferred to TVA from the Atomic Energy Commission on May 10, 1964. The Melton Hill Maintenance Base and Watershed Team is also located on the dam reservation. Because sensitive cultural resources have been identified on both the right and left banks of this parcel, any proposed land disturbance must be coordinated with TVA's Cultural Resources staff. This area was placed in Zone 2, Project Operations, because it has been used historically to maintain access for operation and maintenance of the dam/hydro turbines, and for public use.

Prior Forecast Designation: Dam Reservation

## Parcel 2 - (2.2 Acres)

## Zone 7, Residential Access

Parcel 2 is located on the left bank at CRM 24, fronting Beech Grove Subdivision, an area that has limited residential development. It is a heavily forested strip of shoreline which is part of a larger forested area. False foxglove (*Aureolaria patula*), a state-listed threatened plant species, was identified on this parcel. Any future requests for approval of activities/facilities on this parcel will be carefully evaluated to avoid adverse impacts. Navigation review will also be required. It is zoned residential because it fronts an existing subdivision. Additional requests for water-use facilities will be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 3 - (5.4 Acres)

Zone 3, Sensitive Resource Management • Heritage

Parcel 3 is a narrow strip located at approximately CRM 24.5 on the left bank, south of Hope Creek and just north of Interstate 40. This is a forested, steep river bank with rock outcroppings, undeveloped except for one existing dock. The site offers good riparian habitat, with a population of false foxglove *(Aureolaria patula)*, a state-listed threatened plant species on the west portion of the parcel. A 154-kV transmission line crosses the parcel at TVA property marker 18. An off-reservoir two-story farmhouse is visible from this site and is eligible for the National Register of Historic Places. Any TVA activities

would be designed to protect the viewscape of the offsite historic home. There are also two navigation day boards present. This parcel was zoned for Sensitive Resource Management to protect the state-listed plant. Requests for additional water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 4 - (3.8 Acres)

Zone 7, Residential Access

Parcel 4 is located at CRM 25, along the south bank of Hope Creek from the Buttermilk Road bridge to where the creek joins the Clinch River, extending from TVA property marker numbers 29 through 52. An old silo located in the water is visible from both the road and creek. This steep narrow strip of land provides river access for the residents of Hope Creek Subdivision. Numerous water-use facilities are present. Despite the presence of these docks and a cleared section, this shoreline strip is primarily forested. The parcel was zoned residential because it fronts an existing residential development. Requests for additional water-use facilities will be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 5 - (3.3 Acres)

Zone 3, Sensitive Resource Management

Wetlands

This small parcel is located on the south bank of Hope Creek upstream of the Buttermilk Road bridge and immediately north of Interstate 40. This strip is a jurisdictional shrubscrub wetland. About half is forested and the remainder is former pasture land. It was placed in Zone 3 to protect this wetland. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 6 - (2.3 Acres)

Zone 4, Natural Resource Conservation

Located in the upper reaches of the Hope Creek embayment, this undeveloped parcel includes a small portion approximately halfway to the Clinch River. As with Parcel 5, it is immediately north of Interstate 40 and is adjacent to a large cattle farm. About 30 percent of the area is in scattered trees or woods, with the remainder in cleared areas. Unauthorized cattle grazing has occurred on this parcel. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots

help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 7 - (10.1 Acres)

Zone 3, Sensitive Resource Management

Cultural

`Visual

This triangular-shaped parcel of land is located about midway along the north bank of the Hope Creek embayment. An abandoned, water-filled quarry occupies the majority of this site, sitting back from the creek. Visual quality will be preserved for boaters and the residential area located across the creek. This site will be managed to protect both cultural and visual resources. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 8 - (4.3 Acres)

#### Zone 4, Natural Resource Conservation

This narrow strip of land is located between the quarry and the navigation safety harbor at the mouth of Hope Creek. This site provides a buffer between the adjacent safety harbor and the sensitive resource management parcel. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This totally forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 9 - (2.7 Acres)

## Zone 2, TVA Project Operations

This parcel is located at approximately CRM 25.2 on the left bank between TVA property markers 83 and 85. This narrow strip of land has been designated as a TVA navigation safety landing since the 1960s. The parcel is about 90 percent wooded with trees of various ages. This parcel will remain undeveloped to allow for moorage of boats and barges during inclement weather. This parcel was zoned Project Operations due to its

current safety landing designation. No water-use facilities will be permitted on this parcel.

Prior Forecast Designation: Safety Landing

#### Parcel 10 - (182.7 Acres)

Zone 4, Natural Resource Conservation

Located on the left bank at approximately CRM 26, in a hairpin bend of the river, this peninsula is one of the largest undeveloped pieces of TVA-owned land on the Melton Hill Reservoir. This large upland parcel is totally forested. Forest cover types include planted pine and abandoned fields that have reverted to young pine/hardwood stands. It also includes one of the oldest hardwood stands on Melton Hill Reservoir. The adjacent private property is a large farm that is used for livestock pasture. The ridge crest extends from the southeast margin of the parcel to its midpoint. In addition, several karst sinks are present in the eastern half of the parcel. However, soils in these areas are marginal. Because of its size, topography, and land cover, this is the best undeveloped timber, wildlife, and informal public use parcel on Melton Hill Reservoir. The area receives occasional picnicking and some hunting, especially turkey and deer. TVA holds legal access through a road right-of-way, from the paved road at Parcel 13 and across the adjacent private lands, to access this parcel. Intensive forest resource data were collected on this parcel in 1994. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation and Reservoir Operations

#### Parcel 11 - (62.4 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Heritage

On the left bank of the Clinch River between mile 26 and 27, this parcel is the northern end of the peninsula described in Parcel 10. Like the adjacent Parcel 10, this sizable upland parcel is currently forested, with a variety of hardwoods and pines both natural and planted. This portion of the peninsula has a gradual slope down to the bank of the river. Moderate-to-severe shoreline erosion has occurred along the west and north banks. Pink lady slippers, a state-listed endangered plant species, is found on this parcel. This parcel will be managed to protect sensitive cultural sites and the endangered plant species. Water-use facilities will not be considered on this parcel.

Prior Forecast Designation: Public Recreation and Reservoir Operations

#### Parcel 12 - (24.0 Acres)

Zone 3, Sensitive Resource Management

- Visual
- Heritage

Parcel 12 is heavily forested with a steep limestone bluff on the left bank of the Clinch River, across the river from Hickory Creek Bend extending to the mouth of Hickory Creek. This distinctive bluff area is home to several sensitive plants including Appalachian bugbane (*Cimicifuga rubifolia*), a state-listed threatened plant, and saxifrage (*Saxifraga careyena*), a state-listed Special Concern plant species. Two navigation day boards are located on this parcel at CRM 27.9 and 28.1. The parcel will be managed to protect the plant species and visual features of the site. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

## Parcel 13 - (6.1 Acres)

#### Zone 4, Natural Resource Conservation

This parcel is adjacent to Hickory Creek Park and forms a narrow strip along the south bank of Hickory Creek, from the mouth to about the midpoint of the embayment. A road leads out of this parcel at its midpoint, near the Knox and Loudon County lines. This road is important because it provides the legal road access to Parcels 10, 11, and 12. This parcel is approximately 85 percent forested with trees of various ages. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish and their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. This parcel will be managed for natural resource conservation. One water-use facility exists near TVA property marker 21 on this site; however, no further requests for water-use facilities will be considered.

Prior Forecast Designation: Public Recreation and Reservoir Operations

Parcel 14 - (1.7 Acres) Zone 6, Recreation

This parcel is on both the north and south banks of Hickory Creek, about midway on the embayment. Access on the south bank is from Everett Road and on the north bank from Hickory Creek Road. It fronts land that was transferred to Knox County for public recreation purposes. The park, known as Hickory Creek Park, includes a boat-launching ramp and picnic facilities. It is approximately 80 percent wooded. A buffer has been established to protect the scrub-shrub wetland along the creek. This parcel was placed in Zone 6 to reflect the backlying land use.

Prior Forecast Designation: Public Recreation

#### Parcel 15 - (13.3 Acres)

<u>Zone 3</u>, Sensitive Resource Management • Wetlands

This parcel wraps around the upper reaches of Hickory Creek embayment, adjacent to Hickory Creek Park. It is near the intersection of Buttermilk and Everett Roads. The area will be managed to protect wetlands both upstream and downstream of Buttermilk Road. One alternative for the Knoxville Beltway would cross this parcel. Some of the area is in the floodplain; much is forested. Existing unauthorized uses on this parcel will be dealt with as encroachments. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 16 - (6.3 Acres)

Zone 6, Recreation

Beginning at Hickory Creek Road, this parcel goes east along the north creek bank almost to Buttermilk Road. It was licensed to Knox County for public recreation purposes. The flat terrain has provided excellent soccer fields. A buffer has been established to protect the scrub-shrub wetlands along the creek. This parcel was placed in Zone 6 to reflect the current use.

Prior Forecast Designation: Reservoir Operations

#### Parcel 17 - (1.0 Acres)

Zone 4, Natural Resource Conservation

This small parcel forms a narrow strip along the north bank of Hickory Creek, about midway up the embayment. It is important to protect the viewscape of Hickory Creek Park and the river corridor (no development occurs on the opposite bank). This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for

diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 18 - (0.5 Acres)

Zone 7, Residential Access

Located on the north bank of Hickory Creek, about midway up the embayment, this small parcel has approved water-use facilities. The parcel is almost completely wooded, with a forested strip along the shoreline. This was placed in Zone 7 because of existing shoreline development. If space allows, additional facilities will be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 19 - (1.2 Acres)

## Zone 4, Natural Resource Conservation

Located on the north bank, close to the mouth of Hickory Creek, this area is sandwiched between two residential parcels. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 20 - (4.2 Acres)

Zone 7, Residential Access

This parcel is a narrow strip located at the mouth of Hickory Creek, on the north bank between TVA property markers 77 and 98. The backlying property is developed for residential use. This parcel is about 60 percent wooded. Although numerous shoreline permits have been issued for water-use facilities, the shoreline is mostly forested, with a few cleared for lawn areas. Subdivisions that are located behind this parcel are W. L. Ogle Estates and Misty Harbor. Due to the close proximity of the navigation channel, private water-use facilities that are constructed on the upstream portion of this parcel will require navigation review. This parcel was placed in Zone 7 due to existing residential development. Additional water-use facilities will be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 21 - (51.8 Acres)

Zone 6, Recreation

This parcel is located on the left bank of CRM 28.6. It includes portions of both banks of the Lovelace Creek embayment. The west bank includes a 50-acre area that slopes gently to the river. This area is completed forested with trees of various ages. It is one of the few potential marina sites (on TVA land) that remain on Melton Hill Reservoir. The east bank is a narrow wooded strip that adjoins the Misty Harbor Subdivision at about TVA property marker 98. Forested and aquatic bed wetlands occur at the head of the large cove. Access to this portion is by Lovelace Road which dead-ends at the reservoir. Because of this access, the river bank is frequently used by local fishermen. The land base is suitable for development and has a protected harbor and road access. There is a navigation safety harbor located on the main channel at the southern-most end of the parcel. Intensive data have been collected for forest resources on this parcel. Until recreation opportunities occur, this parcel will provide informal recreational uses. Requests for recreational development of the shoreline must be coordinated with TVA Navigation and Wetlands staff. Requests for private water-use facilities will not be considered.

Prior Forecast Designation: Commercial Landing, Public Recreation, and Safety Landing/

## Parcel 22 - (12.6 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands

This parcel is located on the left bank of CRM 29. The terrain slopes gently to the river. The site is completely wooded. It has sensitive cultural resources and some small aquatic bed wetlands are present offshore. Any activities proposed for this site must carefully evaluated. This parcel was placed in Zone 3 to protect cultural sites and wetlands. Requests for private water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

## Parcel 23 - (4.2 Acres)

Zone 7, Residential Access

Located in a bend of the river on the left bank at CRM 29.2, this parcel forms a narrow shoreline strip. A portion of the parcel fronts Shoreline Estates Subdivision, beginning half way between TVA property markers 112 and 113 and extending to 4-40. It is mostly wooded, except for a cleared area on the western-most portion. The shoreline is

steep, with several permitted docks on the eastern half of the parcel. This parcel was placed in Zone 7 to reflect the existing backlying residential use. Additional requests for water-use facilities will be considered but must be coordinated with TVA Navigation staff due to navigation restrictions.

Prior Forecast Designation: Reservoir Operations

#### Parcel 24 - (14.2 Acres)

Zone 3, Sensitive Resource Management

- Heritage
- Visual Protection

This parcel, known for its steep, rocky, and heavily wooded distinctive bluff, is commonly referred to as Stubbs Bluff. It is the home of several sensitive plant species, including saxifrage (*Saxifraga careyana*), and smooth-leaf honeysuckle (*Lonicera dioica*), both listed as Special Concern plants in Tennessee. A navigation day board (river mile 30.5) is also present. This parcel is in Zone 3 to protect the visual quality of the bluff and the rare plants. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

## Parcel 25 - (10.7 Acres)

Zone 7, Residential Access

This narrow strip of shoreline is located along the west side of Gallaher Bend, from TVA property marker 4-30 and extending north to TVA property markers 6. Access is off Gallaher Ferry Road beginning at CRM 30.6. A navigation day board (river mile 31.2) also present. The adjacent private land is residential and many water-use facilities are present. The shoreline viewscape is primarily docks with lawns, with intermittent wooded sections. Forested and aquatic bed wetlands are located in the back of the northern-most cove near TVA property marker 5. Butternut (*Juglans\_cinerea*), a tree listed as Threatened in Tennessee, occurs in the center of this parcel between TVA property markers 4-6 and 4-12. Due to their rarity and because of their state of decline from butternut canker, they will be preserved. Requests for additional water-use facilities will be considered but must be carefully evaluated to minimize impacts in the cove area.

Prior Forecast Designation: Reservoir Operations

## Parcel 26 - (1.9 Acres)

Zone 2, TVA Project Operations

This narrow strip is located on the left bank at CRM 32 on the southern tip of Gallaher Bend. The shoreline is largely wooded or in scattered trees, while the backlying land is cleared. Access is provided by Gallaher Ferry Road. Because it is designated as a navigation safety landing, requests for water-use facilities will not be considered.

Prior Forecast Designation: Safety Landing

## Parcel 27 - (2.6 Acres)

Zone 4, Natural Resource Conservation

This parcel is a narrow shoreline strip at the tip end of Gallaher Bend located at CRM 33. The vegetation cover is mixed, with areas of scattered trees and shrubs, small woodlots, and open areas. The backlying land is nonforested. The soils are varied and access is provided by Gallaher Ferry Road. This TVA land provides a buffer for the sensitive ecological area on Parcel 28 that includes osprey nests. The shoreline also provides a buffer for the cultural sites on the islands. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 28 - (0.7 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Heritage
- Wetlands

These small islands are located at CRM 33 in Gallaher Bend. The vegetation is a mixture of hardwoods, softwoods, and shrubs. Aquatic bed and forested wetlands are present. This parcel is in Zone 3 to protect cultural sites on the islands, wetlands, and an osprey nesting site. Osprey is a species listed as Threatened by the state of Tennessee. Because of the increase in development along the reservoir, small islands are especially important nesting sites for osprey and a variety of wetland species that are sensitive to human disturbance. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations - Islands

#### Parcel 29 - (2.6 Acres)

#### Zone 7, Residential Access

This parcel is located between TVA property markers 17 and 21 and includes a small cove located just below the northern-most tip of Gallaher Bend between TVA property markers 20 and 21. It is accessible by Gallaher View Road. The shoreline is mostly lawns with scattered trees. An unauthorized fence exists on this parcel and will be dealt with as an encroachment. Forested wetlands are present. Private water-use facilities will be considered, but must be carefully evaluated. Upon approval of plans by TVA, improvements on this parcel must be conducted from September to March, because of adjacent osprey nesting.

Prior Forecast Designation: Reservoir Operations

#### Parcel 30 - (11.4 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands

This parcel forms a pie-shaped area on the northern-most tip of Gallaher Bend at around CRM 33.9 on the left bank. It is completely wooded, including a variety of both pine and hardwood. A small forested wetland occurs on the eastern-most portion of the parcel. Access is provided by Gallaher View Road and an old dirt road through the parcel provides access to the lake. It receives some informal use. The shoreline fronting this parcel is restricted by TVA Navigation. This parcel has been designated as Zone 3 to protect the sensitive cultural site and wetland. In the past, requests for private water-use facilities have been denied. Private water-use facilities will not be considered.

Prior Forecast Designation: Commercial Landing and Public Recreation/

## Parcel 31 - (11.4 Acres)

#### Zone 7, Residential Access

This long, narrow shoreline strip stretches from TVA property markers 25 through 71, excluding the area at the head of Conner Creek embayment (TVA property markers 52 through 66). The parcel includes C.W. Peake Subdivision fronting the reservoir and Rippling Waters Subdivision fronting Conner Creek. The shoreline is forested bluffs except for Conner Creek embayment, which has numerous docks and lawns interrupting the generally wooded shoreline. Although this parcel is in Zone 7 due to existing residential development, it is considered to be a sensitive ecological area due to the presence of three known rare plants (*Saxifraga careyana, Aureolaria patula, Cimicifuga rubifolia*). In the vicinity of Rippling Waters Subdivision, there are multiple encroachments including driveways and decks. Therefore, future request for water-use facilities on this parcel (excluding Conner Creek) can be considered but must be carefully evaluated to avoid adverse impacts to these rare plant species. Also, there are two day boards present at CRM 34.9 and 35.2. This parcel was placed in Zone 7 due to existing residential development. A small forested wetland occurs in a small cove at

approximately CRM 35.2. Requests for additional water-use facilities from approximately TVA property markers 36 through 46 must be carefully evaluated.

Prior Forecast Designation: Reservoir Operations

#### Parcel 32 - (3.0 Acres)

Zone 3, Sensitive Resource Management

- Wetlands
- Visual

This parcel is located at the head of Conner Creek, opposite CRM 35.5, between TVA property markers 52 and 66. The cove is wooded, except for a small cleared area with a old mill race creating an attractive waterfall. Scrub-shrub wetlands occur over much of the parcel. Road access is provided by Gallaher Ferry Road. Although there is adjacent residential development, this parcel at the head of the creek has been placed in Zone 3 to protect its wetlands and scenic value. Requests for water-use facilities on this parcel will not be considered.

Prior Forecast Designation: Public Recreation

#### Parcel 33 - (2.8 Acres)

Zone 7, Residential Access

This parcel is located on the north bank of Conner Creek. This parcel is mostly wooded with a few existing water-use facilities. A portion of this parcel borders Gallaher Ferry Road. Requests for additional water-use facilities will be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 34 - (5.5 Acres)

Zone 4, Natural Resource Conservation

This parcel begins at the mouth of Conner's Creek on the left bank of the reservoir, opposite CRM 35.5, and runs north to TVA property marker 4. The shoreline cover is scattered trees and shrubs. Also, a picnic area and a mowed area will be dealt with as encroachments. The backlying land is forested. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 35 - (1.5 Acres)

# Zone 3, Sensitive Resource Management Heritage

Parcel 35 is located on the left bank at CRM 36.3, just south of the Knox County Park. This is a narrow wooded shoreline strip with limestone outcrops. It is designated as a habitat protection area to protect a rare plant (false foxglove, *Aureolaria patula*) which is listed as Threatened in Tennessee. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 36 - (5.5 Acres)

## Zone 6, Recreation

This parcel is a narrow strip of shoreline located at CRM 37. It fronts land transferred to Knox County for public recreation purposes. It is commonly referred to as Melton Hill Park and has access off Williams Bend Road. The shoreline, which extends from TVA property marker 7 to 9, is mostly wooded with some cleared sections. Erosion is occurring at several locations on this parcel. Significant scrub-shrub wetlands occur at two locations. Lake access is provided by two boat launching ramps, one on the east side of the peninsula and one on the west which includes a courtesy pier. Park facilities include pavilions, picnic tables, and open spaces for informal recreation such as frisbeetossing and soccer. Future recreational activities at the wetland sites will be carefully evaluated. This parcel is in Zone 6 to support the backlying land use. A municipal water intake facility is located on the western side of the tract. This area is restricted by TVA Navigation due to the close proximity of the channel. Private water-use facilities on this parcel will not be considered.

Prior Forecast Designation: Public Recreation

## Parcel 37 - (1.2 Acres)

Zone 3, Sensitive Resource Management

- Cultural Resources
- Wetlands

This parcel is a thinly wooded island in Williams Bend at CRM 37.5, opposite Melton Hill Park. Most of the parcel supports forested wetlands. It has cultural resources that will be protected by its placement in Zone 3. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations - Islands

#### Parcel 38 - (3.3 Acres)

## Zone 3, Sensitive Resource Management

Heritage

Parcel 38 stretches from TVA property marker 9 to 24 and includes the shoreline strip known as Hewitt Bluff, a heavily wooded, steep, rocky bluff. This parcel has been designated as a habitat protection area to protect two state-listed plant species *Saxifraga careyana* and *Cimicifuga rubifolia*. This area is restricted by TVA Navigation due to the close proximity of the channel and there are two navigation day boards (38.9 and 39.4) located on the site. This parcel was placed in Zone 3 to protect the rare plant species listed above. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 39 - (4.1 Acres)

Zone 7, Residential Access

This narrow strip begins at a slough just south of the mouth of Beaver Creek at TVA property marker 24 and extends into Beaver Creek on the south bank to TVA property marker 39. Forested wetlands occur in the head of the slough. The shoreline is mostly forested, with some water-use facilities in the slough. Access to this area is by Couch Mill Road. Beaver Point and Old Mill Crossing Subdivisions are located behind this parcel. Additional requests for water-use facilities will be considered; however, the area between TVA property markers 31 and 35 is restricted and must be coordinated with TVA Navigation. Requests for facilities in the wetland area must be carefully evaluated. This parcel is in Zone 7 due to existing residential development.

Prior Forecast Designation: Reservoir Operations

#### Parcel 40 - (99.1 Acres)

Zone 3, Sensitive Resource Management

- Heritage
- Wetlands
- Cultural
- Visual

This parcel includes most of the TVA land in the Beaver Creek embayment except for Parcel 41. The south bank is a forested bluff with young woods on the bottomland at the head of the embayment. The western end is forested with shortleaf pine, which gives way to cedar and hardwoods to the east in the embayment. The low areas along the creek are relatively flat, with well developed soils; whereas, the upland portions are very rocky with poor soil development. The Beaver Creek embayment forms a unique, landscaped, river corridor, with important riparian habitats and numerous forested wetlands. Parcel 40, together with Parcel 42, is the fifth-highest-ranked parcel for forest-based resource management on Melton Hill Reservoir. The upper reaches of the creek becomes more narrow and is no longer navigable due to a rocky shelf. Views in this area have a notable scenic value to both the homeowners and the recreational boater. This area is habitat for Aureolaria patula, listed as Threatened in Tennessee and Saxifraga careyana, listed as Special Concern in Tennessee. The shores of the creek also include the site of a Civil War-era grist mill, three historic structures, and some prehistoric sites. There is a Navigation safety landing on the main channel side of the northern-most peninsula. This parcel was placed in Zone 3 to protect cultural, rare plant species, wetland, and the visual integrity of the parcel. Requests for private wateruse facilities will not be considered.

Prior Forecast Designation: Public Recreation

## Parcel 41 - (4.0 Acres)

## Zone 7, Residential Access

Located on the north shore of Beaver Creek, in the second bend of the river, this parcel is approximately 50 percent wooded. Houser Subdivision is located behind the TVA property between TVA property markers 80 and half-way between 67 and 68. The shoreline strip along the embayment fronts the subdivision where numerous docks have been approved. There are mowed lawns close to the shoreline and some vegetation and tree cover exists. A forested wetland occurs along a portion of the shoreline. Access is provided by Couch Mill Road. Requests for future shoreline development on this parcel will be carefully evaluated.

Prior Forecast Designation: Reservoir Operations

## Parcel 42 - (29.0 Acres)

## Zone 4, Natural Resource Conservation

Located on the left bank at CRM 40, this totally forested parcel is predominately hardwood. The lower portion of this parcel, about 12.3 acres, lies behind the northern rim of Parcel 40. The upper portion, 16.6 acres, is just north of the small cove opposite CRM 40. A small forested wetland is located at the head of this the cove. It is an attractive cove suitable for informal recreation. Parcels 42 and 40 were rated the fifthhighest for forest-based resource management. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for private water-use facilities will not be considered.

## Parcel 43 - (3.1 Acres)

#### Zone 7, Residential Access

This shoreline strip extends from TVA property markers 7-6 to 7-72, fronting Morgan Place Subdivision. The vegetation is primarily lawns with scattered trees. There are numerous water-use facilities located on this parcel. Requests for additional water-use facilities will be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 44 - (2.6 Acres)

#### Zone 4, Natural Resource Conservation

Parcel 44 is located on the left bank at CRM 40.7. It is a small, wooded area that provides a buffer between Morgan Place Subdivision and Guinn Road Park. In the past, private water-use facilities have been removed from this parcel. Dispersed, informal recreational activities occur. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for private water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

#### Parcel 45 - (3.8 Acres)

## Zone 6, Recreation

This narrow strip of shoreline on the left bank at CRM 40.8, includes a shallow cove and fronts Guinn Road Park. This park was transferred to Knox County. It is a wooded shoreline strip with a cleared area around the boat ramp and parking area. A small forested wetland is located in the northern portion of the parcel. The launching ramp receives informal recreation use. This parcel was placed in Zone 6 due to the existing backlying land use. However, any further recreational development of Parcel 45 must be coordinated with the TVA Cultural Resources staff due to the presence of a cultural site eligible for the National Historic Register. Development must also be carefully evaluated.

#### Parcel 46 - (0.3 Acres)

#### Zone 4, Natural Resource Conservation

Parcel 46 is a small, wooded island complex located just north of Guinn Road Park at CRM 41.1. Depending on lake elevation, one or more islands that support forested wetlands may be present. All islands of 10 acres or less that had no other commitments were placed in Zone 4 for resource management and to enhance the scenic character of the river. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Private water-use facilities will not be considered.

Prior Forecast Designation: None

## Parcel 47 - (21.3 Acres)

## Zone 7, Residential Access

Parcel 47 is a long narrow shoreline strip extending from TVA property marker 7-21 to around 8-60A and fronting Sasa Landing Subdivision. It is easily accessible by Guinn Road. The southern end of this parcel abuts Guinn Road Park. The shoreline is about 40 percent wooded, with numerous docks and lawns. There have been several incidents of unauthorized tree cutting on this parcel. A navigation day board (42.6) is also present. This parcel was placed in Zone 7 due to existing residential development. However, since there are several significant forested and aquatic bed wetlands on this parcel, any proposed shoreline development must be carefully evaluated to minimize adverse impacts.

Prior Forecast Designation: Reservoir Operations

## Parcel 48 - (8.5 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Heritage
- Wetlands
- Visual

Goose Island is a fairly large island located at CRM 41.7 opposite Sasa Subdivision. The island is an intact and stable upper terrace land-form, currently being eroded as a result of inundation. Sparsely wooded and relatively flat, this island has a unique visual quality. There is a deep inlet on the west side of the island reaching to its center. This island supports numerous scrub-shrub and emergent wetlands. An osprey nest is located on the north side of the island. Multiple cultural sites also exist on this parcel. Parcel 48 was placed in Zone 3 to protect the above-mentioned sensitive resources. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations - Islands

#### Parcel 49 - (4.7 Acres)

Zone 4, Natural Resource Conservation

This parcel is located at CRM 42.8 and is accessible by Guinn Road. It is completely wooded and receives informal use from the public. Because this is a high growth area of Knox County and close to Pellissippi Parkway, Knox County originally expressed interest in this site for day use recreational activities. Subsequently, the draft EA allocated this parcel as Zone 6, Recreation. A neighborhood meeting was held on March 25, 1999, in which 32 people voiced their objection to the allocation of this parcel to Zone 6, due to past abuses. These citizens prefer to have this parcel designated to Zone 4 to reflect its current use. Based on the community opposition, Knox County withdrew its interest in the parcel. Since this was the overriding reason for the designation to Zone 6, Recreation, we changed our allocation to Zone 4, Natural Resource Conservation, which will more accurately reflect current informal activities such as hiking, fishing, and swimming. Informal activities will continue to occur. A navigation day board (at CRM 42.7) is also present on this parcel. A navigation safety landing exists along the main channel. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Commercial Landing, Public Recreation, and Safety Landing

#### Parcel 50 - (9.2 Acres)

Zone 7, Residential Access

This narrow band of shoreline strip begins at approximately CRM 43 and extends north to TVA property markers 8 through 16. Several small forested wetlands occur on this parcel. A navigation safety landing extends from Parcel 49 onto the southern-most portion of this parcel. Numerous shoreline facilities exist on Parcel 50 and additional facilities will be considered, but must be carefully evaluated. This parcel was placed in Zone 7 to reflect the existing residential development.

Prior Forecast Designation: Reservoir Operations

#### Parcel 51 - (0.7 Acres)

Zone 6, Recreation

This parcel includes one of the two existing marinas on Melton Hill Reservoir and is approximately 50 percent wooded. It is located at CRM 43.3L, south of Solway Bridge, and is easily accessible from Pellissippi Parkway and Highway 62. Some aquatic bed wetlands occur offshore. Melton Hill Marina, formerly known as Kern's Boat Dock, houses numerous boatslips, gasoline services, and other typical marina amenities. This parcel is in Zone 6, Recreation, to reflect the current use of the marina.

Prior Forecast Designation: Reservoir Operations

#### Parcel 52 - (1.1 Acres)

Zone 7, Residential Access

Located at CRM 43.4L, this narrow stretch of shoreline is approximately 80 percent forested with some cleared sections. Only a few water-use facilities exist along this stretch of shoreline; however, two derelict docks are present and will be dealt with as violations. This parcel was placed in Zone 7 to reflect existing residential development. Requests for additional water-use facilities will be considered.

Prior Forecast Designation: Public Recreation and Reservoir Operations

#### Parcel 53 - (3.4 Acres)

#### Zone 7, Residential

A partially wooded area, this parcel is located south of Solway Bridge at CRM 43.5L. Two small parcels—54 and 55, which are Zone 5, Industrial/Commercial—are located within this parcel boundary. This parcel receives frequent informal use and supports a small forested wetland. No ground-disturbing activities should be permitted or licensed directly behind the existing gasoline station at 9212 Oak Ridge Highway until the remediation of gas/petroleum-contaminated soil is completed. Existing water-use facilities have been approved for this parcel. Future requests for water-use facilities will be considered but must be carefully evaluated to avoid adverse impacts to the wetlands.

Prior Forecast Designation: Reservoir Operations

#### Parcel 54 - (0.1 Acres)

#### Zone 5, Industrial/Commercial

This small narrow strip of land located south of Solway Bridge at CRM 43.5L, is a cleared site that is licensed to the Tennessee Laborers Union for a hazardous materials training facility. No hazardous materials are present on the site. This parcel was put in Zone 5, Industrial/Commercial, because of the current use of the property. No water-use facilities will be considered on this parcel.

Prior Forecast Designation: Reservoir Operations

## Parcel 55 - (0.3 Acres)

Zone 5, Industrial/Commercial

This small parcel, located at CRM 43.5L behind Parcel 53, was placed in Zone 5 to accommodate the existence of a sewage facility. Since this parcel is not located on the shoreline, water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

## Parcel 56 - (0.5 Acres)

## Zone 7, Residential Access

This parcel is a small, wooded area just south of Solway Bridge. One water-use facility currently exists. If space allows, other water-use facilities will be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 57 - (9.8 Acres)

Zone 4, Natural Resource Conservation

This parcel includes the old Solway Bridge approach and a small portion of the river bank which crosses under the new Solway Bridge to the south. The old bridge approach is heavily wooded, providing a visual buffer between the adjacent residential area, Burchfield Heights Subdivision, and the new bridge. Informal uses of this site include fishing and hiking. Also included in this parcel are three small, backwater areas that are on the west side of Bethel Valley Road. This parcel was placed in Zone 4 to protect the shoreline vegetation zone and to reflect existing informal recreation use. This forested zone along the shoreline contributes to the ecology of the reservoir by providing habitat and food for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation and Reservoir Operations

## Parcel 58 - (2.7 Acres)

Zone 7, Residential Access

This parcel is located immediately north of the old Solway Bridge at CRM 44, from TVA property markers 8-2-3 to 8-2-20. It fronts Burchfield Heights Subdivision and has many existing water-use facilities. Much of this parcel is mowed with scattered trees. It supports aquatic bed and forested wetlands. A cultural resource site was identified on the eastern-most portion of the parcel. Therefore, any activities proposed for this area

must be carefully evaluated. Additional requests for water-use facilities will be considered, provided they do not negatively impact the sensitive resources.

Prior Forecast Designation: Reservoir Operations

## Parcel 59 - (59.2 Acres)

## Zone 6, Recreation

This narrow band of land fronts Solway Park and Haw Ridge Park, extending from just west of the Solway Bridge around the shoreline to CRM 47.2. The property for both parks was transferred to the city of Oak Ridge for public recreation purposes. There are several roadside pull-offs on the west end of the parcel, which provide public boat launching, bank fishing, parking for bikers, and picnicking. The rest of the shoreline is undeveloped with a mixture of pines and hardwoods. Numerous wetlands, including aquatic bed, forested, and scrub-shrub wetlands occur on or offshore of the parcel. Several TVA power transmission lines cross this parcel, and one cultural resource site has been identified. Any recreational development proposed on this site must be carefully evaluated. This parcel was placed in Zone 6 to reflect the existing and potential recreation uses.

Prior Forecast Designation: Public Recreation

## Parcel 60 - (1.1 Acres)

#### Zone 4, Natural Resource Conservation

This parcel is located midway along the Burchfield Heights Subdivision shoreline at CRM 44.3, directly across from Holt Island, from TVA property markers 8-2-41 to 8-2-42. This parcel was originally set aside for public recreation and has never been available for private development. It is a gently sloping and partially wooded site. It is used informally by boaters and adjacent homeowners for informal activities such as fishing, walking, and picnicking. This parcel was placed in Zone 4 to protect the shoreline vegetation zone and reflect existing informal recreation use. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

## Parcel 61 - (1.7 Acres)

## Zone 3, Sensitive Resource Management

Wetlands

This parcel is located on a backwater area on the left bank at CRM 44.3 in Burchfield Heights Subdivision, behind Parcel 60. It is located between TVA property markers 8-2-21 and 8-2-40. This parcel was placed in Zone 3 due to sensitive forested wetlands. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 62 - (16.3 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands

Holt Island is located at CRM 44.4L. This island is under water for much of the year and supports only aquatic bed vegetation. This island was placed in Zone 3 to protect sensitive cultural resources and wetlands. Requests for water-use facilities will not be considered.

Prior Forecast Designation: None

## Parcel 63 - (2.7 Acres)

Zone 7, Residential Access

This parcel is a narrow band of TVA shoreline located directly across from Holt Island (Parcel 62) at CRM 44.5L, located between TVA property markers 8-2-42 and 8-2-88. It is the eastern-most part of Burchfield Heights Subdivision. The shoreline is a mixture of mowed lawns and trees. It supports several small, forested wetlands and an offshore aquatic bed wetland. It is developed with many existing water-use facilities. This parcel was placed in Zone 7 because of its current residential use. Requests for additional water-use facilities will be considered but must be carefully evaluated.

Prior Forecast Designation: Reservoir Operations

## Parcel 64 - (3.1 Acres)

Zone 3, Sensitive Resource Management
Cultural

This sensitive cultural site is located on the left bank at CRM 45. It is a small, forested area that was zoned for Sensitive Resource Management to protect cultural resources. Requests for water-use facilities will not be considered.

#### Parcel 65 - (52.5 Acres)

#### Zone 4, Natural Resource Conservation

This large parcel is located at CRM 45. The northern portion of this parcel is forested and the southern is an old field. Parcel 65, together with parcels 67 and 70, ranked the fourth-highest parcels for forest-based resource management on Melton Hill. Resource data were collected on both parcels as a unit. Investments have been made in gates, wildlife habitat development, and annual maintenance. This parcel was placed in Zone 4 to continue wildlife habitat development and protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

#### Parcel 66 - (8.7 Acres)

# Zone 3, Sensitive Resource Management Cultural

This completely forested parcel is located at CRM 45.0L. It was placed in Zone 3 to protect sensitive cultural resources. Knox County has recently purchased the backlying property and expressed an interest in using a portion of this parcel for future informal recreation purposes, such as a trail. To avoid potential adverse impacts, any recreational development plan must be carefully evaluated. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Commercial Landing and Public Recreation

## Parcel 67 - (16.3 Acres)

#### Zone 4, Natural Resource Conservation

This parcel begins at CRM 45.0L and ends at a power line crossing at approximately CRM 45.8L. A portion of this parcel is forested with an old field that is dominated by kudzu. The most easterly section of this parcel is very steep and has navigation restrictions. Scrub-shrub wetlands occur on the parcel, and extensive aquatic bed wetlands occur offshore. Parcel 67, together with parcels 65 and 70, ranked the fourth-highest parcels for forest-based resource management on Melton Hill Reservoir. Resource data were collected on both parcels as a unit. Investments have been made in gates, wildlife habitat development, and annual maintenance. This parcel was placed in Zone 4 to continue wildlife habitat development and protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other

pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Commercial Landing and Public Recreation

## Parcel 68 - (0.4 Acres)

Zone 3, Sensitive Resource Management

Heritage

This small parcel is located at CRM 45.9L, between two power lines. It is totally forested with a steep rocky slope. This area was designated as a natural area (habitat protection area) for butternut (*Juglans cinerea*) trees. There is no evidence of butternut canker disease. This parcel was placed in Zone 3 to protect these rare trees. Requests for private water-use facilities will not be considered.

Prior Forecast Designation: Commercial Landing and Public Recreation

## Parcel 69 - (1.4 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands

This small parcel is located east of the railroad at CRM 46.1L across from Haw Ridge Park. It was placed in Zone 3 to protect a cultural site. It supports forested and scrubshrub wetlands. Request for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 70 - (14.0 Acres)

Zone 4, Natural Resource Conservation

This parcel begins at CRM 46.3L and goes just past the mouth of Bull Run Creek. This area is mostly forested with aquatic bed wetlands occurring offshore. A pumping station is located at CRM 46.1 (Parcel 71) and is accessed by a road through this parcel. Parcel 70, together with parcels 65 and 67, ranked the fourth-highest parcels for forest-based resource management on Melton Hill Reservoir. Resource data were collected on these parcels as a unit. This parcel was placed in Zone 4 to continue wildlife habitat development and protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their

roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Commercial Landing and Public Recreation

## Parcel 71 - (3.2 Acres)

Zone 2, TVA Project Operations

This parcel is located just south of Bull Run Creek at CRM 46.1L and consists of a pumping station and access road. It was transferred to West Knox Utility District. Parcel 70 is located directly behind and fronting this parcel.

Prior Forecast Designation: None

## Parcel 72 - (0.9 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands

This parcel is a narrow strip of land partially forested between the railroad and the shoreline. Aquatic bed wetlands occur offshore. It was placed in Zone 3 to protect a sensitive cultural resources site and wetlands. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 73 - (6.6 Acres)

Zone 7, Residential Access

This parcel goes from TVA property markers 94 to just north of 149A. This narrow strip of shoreline begins at the first bridge entering Bull Run Creek at TVA property marker 94. Henderson Bend Subdivision is located between TVA property markers 94 and 85. This portion of this parcel has been heavily modified due to residential development. Emergent wetlands occur on the parcel. Two additional docks have been approved upstream of Henderson Bend Subdivision. A power line crosses this parcel just east of Henderson Bend Subdivision. Requests for additional water-use facilities will be considered. Any requests for facilities must be carefully evaluated.

Prior Forecast Designation: Reservoir Operations

#### Parcel 73A - (7.1 Acres)

Zone 4, Natural Resource Conservation

This parcel is divided into two sections. The first section located between TVA markers 144WC and 149A is a small, backwater area directly behind Parcel 73. The second portion of Parcel 73A is located northeast and adjacent to Parcel 73. These parcels were placed in Zone 4 to protect the shoreline vegetation zone and reflect existing informal uses. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 74 - (20.1 Acres)

Zone 2, TVA Project Operations

This parcel extends from approximately CRM 48.8L to just east of the first bridge on Bull Run Creek. The backlying property is TVA's Bull Run Coal-fired Power Plant. Most of the parcel is highly disturbed and cleared, but the southeast portion of this parcel is forested. There is a navigation safety harbor located at approximately CRM 46.5. Bull Run Coal-fired Power Plant is one of the world's largest, most fuel-efficient, coal-fired generating plants. Bull Run Coal-fired Power Plant was placed in operation in 1966, because rapid growth of civilian and defense requirements outstripped to power capabilities of the river. This allowed TVA to meet its legal power responsibilities for furnishing power to an area of 80l,000 square miles, over a seven-state region.

Prior Forecast Designation: None

#### Parcel 75 - (30.5 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands

This parcel is mostly forested and adjoins the Bull Run Coal-fired Power Plant Reservation, just east of the first bridge in Bull Run Creek. Access to this parcel has been blocked due to abuse of the area (i.e., dumping and other abuses). There are sensitive cultural resource sites and forested and scrub-shrub wetlands present on the site. It has been placed in Zone 3 to protect the sensitive cultural resource and wetlands. One unauthorized water-use facility exists at approximately TVA property marker 17 on this parcel and will be treated as a violation. Requests for water-use facilities will not be considered.

#### Parcel 76 - (5.9 Acres)

#### Zone 7, Residential Access

This parcel is a narrow strip of shoreline which partially fronts Meadowlake Subdivision on the southern-most portion. The shoreline is mowed with existing docks. Access to this subdivision is via Old Edgemoor Road. The northern-most section of this parcel remains wooded. A power line crossing exists between TVA property markers 38 and 39. Requests for additional water-use facilities will be considered.

Prior Forecast Designation: Reservoir Operations

## Parcel 77 - (7.5 Acres)

Zone 4, Natural Resource Conservation

This parcel was previously licensed to Anderson County for public use. Recently the decking of the old derelict pier located in this cove (old Bull Run Boat Dock) was removed for safety reasons. The posts of this pier were in good condition and were allowed to remain to enhance the fishing habitat. The west side of this parcel is covered with kudzu, and there is heavy vegetation on both sides of the cove which accounts for only a small amount of erosion. Bank fishing occurs along the shore at locations which are easily accessible. Three very small backwater areas are located on the northeast side of New Henderson Road. This parcel was placed in Zone 4 to protect the shoreline vegetation zone and reflect existing informal recreation use. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for private water-use facilities will not be considered.

Prior Forecast Designation: Commercial Recreation and Public Recreation

#### Parcel 78 - (0.05 acres)

Zone 2, Project Operations

This very small parcel located adjacent to Parcel 77 is on a graveled pull off area adjacent to New Henderson Road, bordering Bull Run Creek. A permanent easement was granted to Alltel Tennessee, Inc., due to the increased need for telephone services.

Prior Forecast Designation: Commercial Recreation

## Parcel 79 - (3.3 Acres)

#### Zone 6, Recreation

This parcel is currently licensed to Anderson County for public recreation purposes. An existing launching ramp and gravel parking lot receive medium-to-heavy use. Also, a power line crosses about midway of this parcel. Severe erosion was occurring on the exposed point but was stabilized by the placement of riprap through a partnership between TVA and Anderson County. The reduced erosion improved aquatic habitat and water guality. This parcel was placed in Zone 6 to reflect the existing recreational use.

Prior Forecast Designation: Public Recreation

#### Parcel 80 - (4.8 Acres)

#### Zone 7, Residential Access

Located just east of the second bridge in Bull Run Creek, this parcel is a narrow strip of land that fronts Springhill Lakeside Subdivision. Access to this property is via Henderson Road. It is located between TVA property markers 151WC and 78, and water-use facilities are present. The land cover includes small trees and vegetation, with some mowed lawn areas. There are emergent wetlands present on this parcel. Requests for additional water-use facilities will be considered but must be carefully evaluated to avoid adverse impacts to the wetlands.

Prior Forecast Designation: Reservoir Operations

#### Parcel 81 - (2.9 Acres)

Zone 3, Sensitive Resource Management • Wetlands

This small parcel is located on the lakeward side of McHaffey Road across the street from Spring Hill Church. This parcel was placed in Zone 3 to protect three emergent wetland areas. The east side of this small embayment consists of a steep, rocky, forested area. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 82 - (17.0 Acres)

Zone 7, Residential Access

This parcel is located approximately midway on both the north and south banks of Bull Run Creek. Some of the shoreline is still forested; however, most of it is maintained as lawns with many water-use facilities present. This developed shoreline consists of Melton View Addition (between TVA property markers 71 and 77 [Map 9D]) and Lake Shore Estates (between TVA property markers 77 and 134 [Map 10D]) Subdivisions on the north side. Just west of Melton View Addition is a residential area located between TVA property markers 62 and 71 that is not referred to as a subdivision but has many water-use facilities present. The subdivisions are accessed via Bull Run Valley Road. The residential section on the south side is accessed from McHaffey Road. This parcel was placed in Zone 7 due to the existing backlying residential development. There are emergent wetlands present on this parcel. Requests for additional water-use facilities will be considered but must be carefully evaluated to avoid adverse impacts.

Prior Forecast Designation: Reservoir Operations/

## Parcel 83 - (16.1 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands
- Heritage

The most northern portion of this parcel is located at Bull Run Creek mile 3.5 and has sensitive cultural resources and aquatic bed and emergent wetlands present. It includes an agricultural license of 8 acres with a vegetation buffer around the shoreline. The most southern portion of this parcel is recommended for designation as a natural area (habitat protection area) for rare plants. This parcel was placed in Zone 3 to protect the sensitive cultural resources, wetlands, and rare plant species. Requests for private water-use facilities will not be considered.

Prior Forecast Designation: Commercial Recreation and Reservoir Operations

## Parcel 84 - (11.4 Acres)

## Zone 6, Recreation

This parcel is located between Bull Run Valley Road and the lake and is known as Brushy Valley Park. It is licensed to Anderson County (Contract No. TV-23679A) for public recreation purposes; however, the only development is a small roadside launching area on the western portion. A power line crosses at the most northern section of this parcel. A large aquatic bed wetland area has been identified on the southern-most portion of the parcel. Future requests for additional recreational development must be carefully evaluated to avoid adverse impacts to the wetlands. This parcel was placed in Zone 6 to reflect the existing and potential recreation uses.

Prior Forecast Designation: Public Recreation and Reservoir Operations

## Parcel 85 - (0.2 Acres)

Zone 2, TVA Project Operations

This small parcel is located in Bull Run Creek at mile 3.9. It is a pumping station for the Hallsdale-Powell Utility District (Tract No. XMHR-7PS). This parcel was put in Zone 2 to accommodate the existing project operations use.

Prior Forecast Designation: None

## Parcel 86 - (27.7 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands

This narrow parcel in Bull Run Creek is mostly forested and joins Parcels 84 to the west and 88 to the east. It consists of emergent wetlands along the shoreline and a sensitive cultural site. This parcel was placed in Zone 3 to protect the sensitive wetlands and cultural site. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

## Parcel 87 - (12.3 Acres)

Zone 3, Sensitive Resource Management

- Wetlands
- Heritage
- Cultural

This parcel is located along Bull Run Creek at mile 4.0 and extends up toward the head of the creek to the third bridge. The shoreline is relatively steep with both emergent and scrub/emergent wetlands present. This parcel is also designated as a natural area (habitat protection area) for rare plants. This parcel was placed in Zone 3 to protect the wetlands, a cultural site, and rare plant species. Requests for private water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 88 - (68.6 Acres)

Zone 4, Natural Resource Conservation

This parcel is located at the upper end of Bull Run Creek. This parcel is the secondhighest-ranked parcel for management of wildlife species that favor early successional or nonforest habitat. Investments have been made in fencing and buffer signs to protect extremely important wetlands and riparian habitat. Multiple agricultural licenses are in place with provisions that protect wetlands and shoreline vegetation. This tract is an integral part of cooperative efforts between TVA, TWRA, and USDA to manage selected tracts of TVA lands to help reduce nuisance Canada goose problems. This parcel was placed in Zone 4 to provide wildlife habitat and protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

#### Parcel 89 - (43.5 Acres)

Zone 3, Sensitive Resource Management

- Wetlands
- Cultural
- Heritage

This parcel is located on the north side of Bull Run Creek, going eastward to the end of the TVA property on Bull Run Creek, and coming back down on the other side to the third bridge. It consists of multiple agricultural licenses and forested/scrub and scrub/emergent wetlands. Also present on this parcel are sensitive cultural resources and sensitive rare plants. This parcel was zoned for Sensitive Resource Management to protect the wetlands, cultural sites, and rare plants. Requests for water-use facilities will not be considered. One alternative for the Knoxville Beltway would cross this parcel.

Prior Forecast Designation: Public Recreation

## Parcel 90 - (123.2 Acres)

Zone 3, Sensitive Resource Management

- Heritage
- Wetlands
- Cultural

This parcel is located at CRM 48.0R and just north of Haw Ridge Park. A small portion at the southern end of this parcel has been recommended as a natural area (habitat protection area) to protect three plants—tall larkspur *(Delphinium exaltatum)*, Appalachian bugbane *(Aureolaria patula)*, and Canada lily *(Lilium canadense)*—listed as Endangered in Tennessee. These plants are not located in the area that has been licensed for agricultural purposes. Sensitive cultural resources have been identified and multiple power lines cross the parcel. In addition, emergent, scrub/emergent, and aquatic bed wetlands are present. This parcel is the third-highest-ranked parcel for wildlife species that favor nonforest habitat. This parcel is the largest cooperative agricultural license on Melton Hill Reservoir. Approximately 90 acres of this parcel is currently under agricultural license for pasture. In addition to being an integral part of the Melton Hill goose management plan, major investments have been made in fencing and shoreline buffers. This parcel was placed in Zone 3 to protect the sensitive plant, cultural, and wetland species. Requests for private water-use facilities will not be considered.

Prior Designation: Power Transmission System and Public Recreation

## Parcel 91 - (37.4 Acres)

Zone 6, Recreation

This parcel begins at the intersection of Bethel Valley Road and Melton Hill Drive, and extends upstream for 3 miles to just above CRM 51 and is known as Melton Lake Park. It contains Oak Ridge Marina and offers lake access, day use facilities, and a 1.2-mile, 8-foot-wide, paved greenway trail. It is fronted by a navigation safety harbor at CRM

50.5R. This parcel from the road down to the lake is licensed to the city of Oak Ridge for public recreation purposes and fronts additional property also transferred to the city for public recreation purposes. The greenway receives heavy pedestrian and bicycle use. Proposals for additional recreation development have been discussed. Aquatic bed wetlands exist fronting this shoreline. Some endangered plants (*Diervilla lonicera, Saxifraga careyana, and Cimicifuga rubifolia*) exist below the road; therefore, additional requests for improvements along this stretch of the river must be carefully evaluated. This parcel was placed in Zone 6, to reflect the existing and potential recreation uses.

Prior Forecast Designation: Power Transmission System/Public Recreation/Reservoir Operations

## Parcel 92 - (13.4 Acres)

Zone 4, Natural Resource Conservation

The parcel is located just behind Parcel 91 and was placed in Zone 4 to provide a vegetative buffer. This forested zone contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for private water-use facilities will not be considered.

Prior Forecast Designation: Power Transmission System and Public Recreation

## Parcel 93 - (8.4 Acres)

Zone 3, Sensitive Resource Management

- Heritage
- Wetlands

This parcel is located at CRM 48.9L, known as Wolf Creek. Access to this parcel is via Wolf Creek and Emory Roads. This site is recommended as a natural area (habitat protection area) and is home to a rare plant *(Aureolaria patula)*, listed as Endangered in Tennessee. Also located on this parcel are forested/scrub and aquatic bed wetlands. This parcel was placed in Zone 3 to protect the rare plants and the wetlands. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Industrial and Reservoir Operations

## Parcel 94 - (8.3 Acres)

Zone 4, Natural Resource Conservation

This parcel is located at CRM 49.2L and includes several small backwater areas and a narrow band of land fronting the railroad. The property along the lake is within the railroad right-of-way. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of

the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for private water-use facilities will not be considered.

Prior Forecast Designation: Industrial

#### Parcel 95 - (0.5 Acres)

Zone 2, TVA Project Operations

This small parcel is located on the backwater at CRM 49.5R. The city of Oak Ridge was granted an easement (TV-74164A) for a road and utilities rights-of-way. This parcel was placed in Zone 2 to reflect the existing use.

Prior Forecast Designation: Public Recreation

#### Parcel 96 - (12.4 Acres)

Zone 3, Sensitive Resource Management

- Heritage
- Wetlands

This parcel is located at CRM 49.4R. This parcel is recommended as a designated natural area (habitat protection area) for protection of a rare plant and scrub-shrub wetlands. This parcel as placed in Zone 3 to protect the rare plant and wetland species. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

#### Parcel 97 - (1.5 Acres)

Zone 3, Sensitive Resource Management

• Heritage

This small parcel is located at CRM 49.9R and is recommended for designation as a natural area (habitat protection area for protection of a rare plant *(Cimicifuga rubifolia).* The TVA land fronting this parcel is in Zone 6 to reflect the current license agreement to the city of Oak Ridge for a greenway trail. This parcel was placed in Zone 3 to protect the rare plant. Requests for water-use facilities will not be considered.

#### Parcel 98 - (127.4 Acres)

- Zone 3, Sensitive Resource Management
  - Cultural Resources
  - Wetlands

This large parcel spans between CRM 49.3L and 51.3L, just south of the railroad bridge. A forested area is located just below the railroad bridge. Much of this has sensitive cultural resources. Numerous aquatic bed, emergent, scrub/emergent, aquatic beds, and emergent wetlands are present. This parcel, along with Parcel 99, makes up the highest-ranked open land habitat complex on Melton Hill Reservoir. It is the most critical part of the Melton Hill goose management plan. Approximately 67 acres are currently licensed for hay production and wildlife crops for cooperative wildlife benefits. Investments have been made in road construction, habitat management, and gates. This is a pilot cooperative resource management and agricultural license. Recent resource data have been collected on this parcel. Ground-disturbing activities will not be permitted or licensed on the northern-most sections of this parcel until more definitive information is available about the migration of toxic and radiological materials from the adjacent closed Anderson County Landfill. This parcel was placed in Zone 3 to protect the sensitive cultural and wetlands resources while maintaining our current cooperative investments. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Industrial - Islands

#### Parcel 99 - (109.9 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands

This large parcel is located south of Braden Branch on the east side of the railroad. It has multiple agricultural licenses in place totaling 65 acres. The agricultural licenses are for hay and wildlife crops. Five sensitive cultural sites were located on this parcel. Where agricultural licenses do not exist, it is mainly woods. A large forested scrubshrub wetland exists on the northeast portion of Braden Branch. This parcel, along with Parcel 98, makes up the highest-ranked open land habitat complex on Melton Hill Reservoir. A fenced and posted area restricts public access to a spring and stream (Braden Branch) because of contamination by low-level radiological material through the groundwater by an adjacent property owner. The site continues to be monitored; there should be no unauthorized access within this area. This parcel was placed in Zone 3 to protect the sensitive cultural resources and wetlands on the site. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Industrial

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## Parcel 100 - (31.1 Acres)

Zone 4, Natural Resource Conservation

This area is located behind Parcel 99 and is predominantly a deciduous forest. It was placed in Zone 4 to facilitate forest wildlife management. This forested zone contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. It is an essential part of a natural and sensitive resource management unit which includes Parcels 98 and 99.

Prior Forecast Designation: Industrial

## Parcel 101 - (0.6 Acres)

## Zone 2, TVA Project Operations

This small parcel located behind Parcel 99 is accessed by Blockhouse Valley Road and is licensed to the city of Claxton for a fire station (TV-88688V). Due to the construction of the fire station, the site is mostly cleared of trees. It has been placed in Zone 2 because of the existing use.

Prior Forecast Designation: Industrial

## Parcel 102 - (24.8 Acres)

## Zone 4, Natural Resource Conservation

This parcel is located on a creek embayment west of Oak Ridge Marina and fronts adjoining property which was transferred to the city of Oak Ridge for public recreation purposes and is known as Emory Valley Greenway. Access is via Emory Valley Road just north of the creek. An unimproved trail exists on the transferred property. This narrow portion of shoreline is mostly forested with emergent wetlands existing from the road on the north side of the slough to the back. A large area at the back of the creek is habitat for red iris (Iris fulva), listed as Special Concern in Tennessee. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Any development proposals from the city of Oak Ridge (i.e., trail improvement) must be carefully evaluated to protect the wetlands and plant species of special concern. Requests for private water-use facilities will not be considered.

#### Parcel 103 - (14.8 Acres)

#### Zone 4, Natural Resource Conservation

This parcel is adjacent to Melton Lake Drive and spans between TVA property markers MH-406 and MH-424 (Map 12D). The parcel is mostly wooded and separated from the lake by Melton Lake Drive. This parcel was placed in Zone 4 to protect the vegetation zone. This forested zone contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

#### Parcel 104 - (1.7 Acres)

Zone 3, Sensitive Resource Management

• Heritage

This small parcel is located at approximately CRM 50.9R (directly behind Parcel 91). Recommended designation is a natural area (habitat protection area) for the protection of habitat for saxifrage (*Saxifraga careyana*), listed as Threatened in Tennessee. This parcel was placed in Zone 3 to protect the above-mentioned rare plant. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

# Parcel 105 - (12.7 Acres)

Zone 4, Natural Resource Conservation

This parcel is located on both sides and in the very back of a cove on the west side of Melton Lake Drive at CRM 51.1R. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Industrial and Public Recreation

#### Parcel 106 - (3.7 Acres)

Zone 3, Sensitive Resource Management

- Heritage
- Wetlands

This parcel is located in the back of a cove on the west side of Melton Lake Drive at CRM 51.1R. It is recommended for designation as a natural area (habitat protection area) and is the home for red iris *(Iris fulva)*, listed as Special Concern in Tennessee. There is also an emergent wetland on the north bank of this site. The parcel was placed in Zone 3 to protect the rare plant species and wetlands. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Industrial and Public Recreation

# Parcel 107 - (6.1 Acres)

Zone 5, Industrial/Commercial

This parcel is located at CRM 51.2R. Numerous attempts at operating a restaurant in the existing building have been unsuccessful. There is also an adjacent parking lot which was licensed for associated restaurant parking. This parcel has been cleared for the building and parking lot, but forested/emergent and emergent wetlands exist behind and to the north side of the restaurant site. Aquatic bed wetlands occur just south of the property. It has been paced in Zone 5 to reflect current designation of the property. Future requests associated with this development must be carefully evaluated to avoid impacts to the wetlands.

Prior Forecast Designation: Commercial Landing

#### Parcel 108 - (77.5 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Heritage
- Wetlands

This parcel is located between CRM 51.2R and 52.3R. Beginning at the southern-most portion of this parcel, behind the unoccupied restaurant building (Parcel 107) and just south of a railroad bridge are forested and emergent wetlands. Worthington Cemetery Cedar Barrens, a TVA natural area, is located directly south of the railroad to TVA property marker MH-450 and includes barrens, wetlands, pines, cedar thickets, and a small cemetery adjacent to Melton Hill Reservoir within the city limits of Oak Ridge. It is accessed from a spur road off Oak Ridge Turnpike and a small city park (Elza Gate Park). The central feature of this small urban natural area is a 5-acre cedar barren. Cedar barrens are a unique plant community in East Tennessee. Cedar barrens are openings dominated by Eastern red cedar, with shallow soils over limestone and habitat-restricted plant species. Open woodlands, brush piles, grassy barrens, mudflats, conifers and deciduous trees, dense shrubs, short-lived puddles, the reservoir, and a mowed cemetery provide a mosaic of habitat. This area provides an opportunity to view

a variety of small wildlife, especially insects, birds, and amphibians. This area was previously a dump site for household and landscaping refuse. Several local groups have joined efforts to clean it up and maintain it as a natural area. Local residents and high school and junior high school students have also cleaned up trash and are conducting biological inventories; TVA has gated the road to the cemetery, erected signs and printed an interpretive brochure; Boy Scouts of America have built a short loop trail, erected nest boxes, and repaired damaged grave markers; Tennessee Citizens for Wilderness Planning has sponsored natural history events; the city of Oak Ridge has assisted with maintenance and has changed the zoning to a Greenbelt. The cemetery provides an opportunity for historical and cultural interpretation. Descendants have also been involved in restoration and protection of the site as a natural area. The large section of this parcel located just north of the railroad bridge has numerous cultural sites and a large area of scrub-shrub and forested/emergent wetlands. This section (27 acres) is also under agricultural license for pasture. The northern-most section of this parcel (16 acres) is also under agricultural license for hay production. Both agricultural licenses have substantial buffers and/or fences to protect the shoreline from erosion. In 1963, several water-use facilities were approved, about midway of this parcel (in a cove) between TVA markers 59 and 96. Visually, this parcel provides scenic value to both boaters and area residents. This parcel was placed in Zone 3 to protect sensitive heritage and cultural resources and significant wetlands. Navigation restrictions apply to the main channel portion of this parcel. Requests for additional water-use facilities will not be considered.

Prior Forecast Designation: Industrial

#### Parcel 109 - (20.3 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Heritage
- Wetlands

This parcel begins at the north end of the railroad bridge at TVA property marker 18, CRM 51.4L and extends, with the exception of two small residential areas, to TVA property marker 13-24. This parcel has cultural resources present. Two state-listed rare plants also exist on this site: bugbane (*Cimicifuga rubifolia*) and wedge-leafed whitlow grass (*Draba ramosissima*). This site is also forested and has significant scrub-shrub wetlands. In the northern-most portion of this parcel, a cooperative project was undertaken with backlying property owners to stabilize a severely eroding shoreline by means of biostabilization and riprap. The southern portion of this parcel is predominantly wooded. No ground-disturbing activities would be permitted or licensed on this parcel south of the cove, until more definitive information is available about the migration of toxic and radiological materials from the adjacent closed Anderson County Landfill. This parcel was placed in Zone 3 to protect the sensitive cultural resources, rare plants, and wetlands. Request for water-use facilities will not be considered.

Prior Forecast Designations: Public Recreation and Reservoir Operations

# Parcel 110 - (1.4 Acres)

# Zone 7, Residential Access

These two small parcels are located at CRM 51.8L. This area has been placed in Zone 7 to reflect existing approved water-use facilities. *No ground-disturbing activities* will be permitted on this parcel south of the cove until more definitive information is available about the migration of toxic and radiological materials from the adjacent closed Anderson County Landfill. Requests for additional water-use facilities will be considered *only* on the southern portion of this parcel due to sensitive cultural resources and must be carefully evaluated.

Prior Forecast Designation: Reservoir Operations

# Parcel 111 - (3.1 Acres)

# Zone 4, Natural Resource Conservation

This parcel is located at CRM 52.2L. This thin narrow strip of TVA land is mostly nonforested. A cooperative project with adjoining property owners stabilized eroding shoreline by means of biostabilization and riprap. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

# Parcel 112 - (11.3 Acres)

# Zone 2, TVA Project Operations

This parcel is located at CRM 52.5R and has been licensed to Anderson County Utility Board for a water treatment plant. There are forested wetlands at the southern-most portion of this parcel. This parcel was placed in Zone 2 to reflect the existing backlying use. Future activities proposed by Anderson County for the southern portion of the parcel must be carefully evaluated to avoid adverse impacts to the wetlands. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Industrial

# Parcel 113 - (3.3 Acres)

Zone 4, Natural Resource Conservation

This parcel is located at CRM 53.0R and was placed in Zone 4 to protect the shoreline vegetation zone. This zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade,

cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

# Parcel 114 - (33.0 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Heritage
- Wetlands

This parcel is located in a bend in the river at CRM 53.0L. This parcel is known as the Lost Bottoms area. This parcel is mostly nonforested. The southern-most section of this parcel has been designated as a habitat protection area and is habitat for saxifrage *(Saxifraga careyana).* This parcel also has several cultural sites. Emergent wetlands are present on this parcel. Two agricultural licenses exist for pasture/hay production. Shoreline buffers have been established to control erosion and reestablish shoreline vegetation. This parcel was placed in Zone 3 to protect the sensitive cultural, plant, and wetlands resources. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

# Parcel 115 - (18.2 Acres)

Zone 6, Recreation

This parcel is located in the bend of the river at CRM 53.5R. The western portion is licensed to Anderson County for Gibbs Ferry Park (Contract No. TV-23679A), and the eastern portion is used for hay production under an agricultural license. Existing uses include lake access and picnicking. The undeveloped portion offers a logical opportunity for future park development to accommodate a variety of day use activities. Small wetland areas are present. This parcel was placed in Zone 6 to reflect existing and potential recreation uses. Any requests for improvements or expansion of Gibbs Ferry Park should be carefully evaluated to avoid adverse impacts to the wetlands.

Prior Forecast Designation: Public Recreation

#### Parcel 116 - (3.0 Acres)

Zone 3, Sensitive Resource Management

Wetlands

This small parcel is located at CRM 53.5R and is separated from the reservoir by Highway 61. Forested/scrub wetlands exist on the site. This parcel was placed in Zone 3 to protect the wetlands. Requests for water-use facilities will not be considered.

# Parcel 117 - (4.3 Acres)

# Zone 7, Residential Access

This parcel is located at CRM 53.7L and fronts Johnson Heights Subdivision, between TVA property markers 13-48 and 13-58. The shoreline is a mixture of trees and mowed lawns. This parcel has many existing water-use facilities. It was placed in Zone 7 to reflect the backlying residential development. Requests for additional water-use facilities will be considered.

Prior Forecast Designation: Reservoir Operations

# Parcel 118 - (2.9 Acres)

Zone 3, Sensitive Resource Management

Wetlands

This parcel is located at CRM 53.8L between TVA property markers 13-58 to 13-67. It has been placed in Zone 3 to protect the existing aquatic bed and emergent wetlands. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

# Parcel 119 - (10.3 Acres)

# Zone 6, Recreation

This parcel, known as Lost Bottom Park, is located at CRM 54.0L and is licensed to the Anderson County Conservation Board for public recreation purposes. The property is primarily used for lake access. Due to the presence of two significant cultural sites, requests for additional development must be coordinated with TVA's cultural resources staff to ensure they are not adversely impacted. This parcel was placed in Zone 6 to reflect existing recreation use.

Prior Forecast Designation: Public Recreation

# Parcel 120 - (2.7 Acres)

Zone 7, Residential Access

Located at CRM 54.0R, this narrow shoreline parcel is located between TVA property markers 13-5 (TVA map 13D) and 5 (TVA map 14D). The parcel fronts Tacora Hills and Lewis Subdivisions and is quite developed with lawns and scattered trees along the shoreline. This parcel was placed in Zone 7 due to existing residential uses. Requests for additional water-use facilities will be considered.

# Parcel 121 - (11.3 Acres

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands

This parcel is located at CRM 54.1L and is nonforested except for vegetation and trees along the shoreline. There are two sensitive cultural resource sites and forested/emergent wetlands present. This parcel was placed in Zone 3 to protect the cultural and wetland sites. A few existing water-use facilities are present. Requests for additional water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation and Reservoir Operations

# Parcel 122 - (2.1 Acres)

Zone 7, Residential Access

This parcel is a narrow strip of land located at CRM 54.4L and extends between TVA property markers 13-92 (Map 13D) and 57 (Map 14D). This parcel also fronts Iroquois Way Subdivision and is located between TVA property markers 13-91 and 13-94. Most of the parcel is nonforested with scattered trees along the shoreline. This parcel was placed in Zone 7 to reflect the backlying residential development. Requests for additional water-use facilities will be considered.

Prior Forecast Designation: Reservoir Operations

# Parcel 123 - (7.5 Acres)

Zone 4, Natural Resource Conservation

This parcel is located at CRM 54.7R just west of Mariner Point Subdivision. Navigation restrictions are present on this parcel due to the close proximity of the navigation channel. This parcel has a mixture of trees and mowed areas. This parcel was placed in Zone 4 to protect the remaining shoreline vegetation zone. This zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

# Parcel 124 - (2.0 Acres)

Zone 3, Sensitive Resource Management • Wetlands

This parcel is located at CRM 54.7R between TVA property markers 11 and just north of 18. It is a small cove located in the center of parcel 123. Emergent wetlands occur on this parcel. Another very small emergent wetland occurs at approximately CRM 54.9R just east of TVA property marker 20. Navigation restrictions are present on this parcel, due to the close proximity of the navigation channel. Water-use facilities will not be considered. These two sites were placed in Zone 3 to protect the sensitive wetlands.

Prior Forecast Designation: Public Recreation

# Parcel 125 - (22.3 Acres)

# Zone 4, Natural Resource Conservation

Located at CRM 55.0L, this parcel is located in the bend of the river. Most of this parcel is separated from the reservoir by Ridgeview Drive. Navigation restrictions are present on this parcel, due to the close proximity of the navigation channel. Vegetation along the main channel is predominately young trees. The embayment shoreline, known as Yarnel Branch, includes both wooded and nonforested sections, with two existing water-use facilities, and receives informal bank fishing where the property is easily accessible. This parcel was placed in Zone 4 to protect the shoreline vegetation zone and reflects existing informal recreation use. This zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for additional water-use facilities will not be considered.

Prior Forecast Designation: Industrial and Reservoir Operations

# Parcel 126 - (1.9 Acres)

<u>Zone 3</u>, Sensitive Resource Management • Wetlands

This parcel is located at CRM 55.0L entirely in the embayment area. It has been placed in Zone 3 to protect both emergent and scrub/emergent wetlands. Request for water-use facilities will not be considered.

Prior Forecast Designation: Industrial

#### Parcel 127 - (5.1 Acres)

#### Zone 7, Residential Access

Located at CRM 55.3R, this TVA shoreline fronts the heavily developed Mariner Point Subdivision. For the most part, this narrow strip of shoreline is nonforested with many water-use facilities present. Two existing cultural sites were identified on this parcel. In addition, several scattered emergent wetlands are also present. Requests for additional water-use facilities will be considered but must be carefully evaluated to avoid adverse impacts to the cultural and wetlands sites. Also, because this parcel is located in a bend of the river and close to the navigation channel, requests for water-use facilities must be coordinated with TVA's navigation staff.

Prior Forecast Designation: Reservoir Operations

#### Parcel 128 - (0.4 Acres)

Zone 3, Sensitive Resource Management • Wetlands

This very small island parcel is located at CRM 55.6L at TVA property markers 149 to 150. It lies close to the shoreline and is completely forested. This parcel was placed in Zone 3 to protect an emergent wetland. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 129 - (5.3 Acres)

Zone 4, Natural Resource Conservation

This parcel is located at CRM 56.0L, between TVA property markers 150 and 119. It is a narrow band of shoreline mostly forested with shrubs and trees. This parcel was previously part of the Melton Hill Golf and Country Club which no longer exists. It also is restricted due to navigation concerns. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

# Parcel 130 - (2.8 Acres)

Zone 3, Sensitive Resource Management

Wetlands

This small cove area is located at CRM 56.2R and is dissected by Highway 61. This parcel extends from TVA property marker 41 to 161 (Map 14D). One floating boathouse was approved in 1986 on the most westerly section of the parcel (above the road). Also, an old ramp and derelict dock exist on the most easterly section (below the road) and will be dealt with as violations. Scrub-shrub wetlands exist on both the lakeward and the area above Highway 61. It has been placed in Zone 3 to protect these wetlands. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

# Parcel 131 - (3.0 Acres)

# Zone 4, Natural Resource Conservation

This parcel is located at CRM 56.4R. This narrow band of shoreline has young plant growth along the shoreline below Highway 61. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Existing vegetation protects water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. It provides shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

#### Parcel 132 - (1.1 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands

This parcel is located at CRM 56.4L, between TVA property markers 119 and 123 (Map 14D). The shoreline has intermittent scattered trees. A sensitive cultural site and emergent wetlands are present. This parcel was placed in Zone 3 to protect the above mentioned cultural and wetland sites. Requests for private water-use facilities will not be considered.

# Parcel 133 - (2.2 Acres)

Zone 2, TVA Project Operations

This parcel is located at CRM 56.6R. This parcel was licensed to the state of Tennessee for State Highway 61 readjustments. This parcel has been placed in Zone 2 to reflect the current use.

Prior Forecast Designation: Public Recreation

# Parcel 134 - (7.3 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands

This shoreline strip is located at CRM 56.9R. A cultural site is located on the most easterly portion of the parcel. In addition, forested/emergent wetlands are also present. Several old water-use facilities were approved in 1963 and 1979, between TVA property markers 6 and 10. However, due to sensitive wetlands that were identified on this parcel, additional requests for water-use facilities will not be considered. This parcel has been placed in Zone 3 to protect both the cultural and wetland sites.

Prior Forecast Designation: Commercial Landing and Reservoir Operations

Parcel 135 - (0.1 Acres)

Zone 2, TVA Project Operations

Located within the boundary of Parcel 134, this parcel is located near the mouth of a branch at CRM 57.0R (Map 14-3D). This small area consists of an easement that was granted to Clinton Utility Board for a sewer line and pumping station (Contract No. TV-72218A). This parcel was placed in Zone 2 to reflect the existing use.

Prior Forecast Designation: Reservoir Operations

# Parcel 136 - (10.9 Acres)

Zone 4, Natural Resource Conservation

This long, narrow band of shoreline extends from CRM 56.5L to 58.7L and borders TVA property markers 123 (Map 14D) to 40 (Map 15D) just south of the Highway 25 bridge. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish.

Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

# Parcel 137 - (6.2 Acres)

Zone 7, Residential Access

This parcel consists of two areas. The first is located inside a branch within the boundary of Parcel 134 at CRM 57.0R (between TVA property markers 6 and 10). Facilities that were approved for this small area were approved in 1963 and 1979, and forested/emergent wetlands are now present. The second portion of this parcel is located in a bend of the river just upstream at CRM 57.5R. The backlying property is known as Clinch View and Lakeview Acres Subdivisions. Numerous water-use facilities exists on this portion of the parcel. Requests for additional water-use facilities in the branch section will be considered due to existing approvals but must be carefully evaluated to avoid impacting the wetlands. Water-use facilities will also be considered on the main channel portion but must be coordinated with TVA navigation staff due to navigation restrictions.

Prior Forecast Designation: Reservoir Operations

# Parcel 138 - (4.4 Acres)

Zone 6, Recreation

This parcel is located at CRM 58.6R and adjoins land transferred to the city of Clinton for public recreation purposes (Contract No. TV-23759A). This area is heavily used for picnicking and other family activities. A launching ramp, courtesy pier, and two ball fields are also present. A portion of this parcel has been filled to allow for parking. This parcel was placed in Zone 6 to reflect the existing recreation uses.

Prior Forecast Designation: Public Recreation

# Parcel 139 - (1.0 Acres)

Zone 2, TVA Project Operations

This small parcel is located opposite CRM 58.9R just west of Highway 61. This parcel has been transferred to the state of Tennessee (TV-63274A) for highway improvements. This parcel was placed in Zone 2 to reflect the current use of the property.

#### Parcel 140 - (6.6 Acres)

#### Zone 4, Natural Resource Conservation

This narrow stretch of shoreline is located at CRM 58.8L between TVA property markers 42 and 52 (Map 15D). This parcel fronts Riverview Addition Subdivision. Located adjacent to this parcel is an unusual brick and stone house, constructed between 1910 and 1920, with a stone facade. It is a substantial, two-story dwelling in excellent condition. Consideration should be given to protect the viewscape of this offsite historic structure. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Activities proposed adjacent to this parcel will require notification to TVA's historic architect to avoid adverse impacts. Even though several water-use facilities exist at this time, no additional water-use facilities will be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 141 - (4.0 Acres)

#### Zone 4, Natural Resource Conservation

This parcel is located from CRM 58.9R northward to 60.1R. A navigation buoy is located at the northern-most end of this parcel. Two historic structures are located adjacent to this parcel of TVA land. The first one is located in Clinton Residential Historic District along Eagle Bend Road. The second structure is known as Magnet Knitting Mills. Even though a portion of this structure has recently been demolished, consideration should still be given to protect the viewscape of these two offsite historic structures. Activities proposed adjacent to this parcel will require notification to TVA's historic architect to avoid adverse impacts. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Commercial Landing and Reservoir Operations

#### Parcel 142 - (3.7 Acres)

#### Zone 5, Industrial/Commercial

This narrow strip of land begins at CRM 59.0L and proceeds around the bend of Carden Farm Industrial Park to approximately CRM 60.4L. A narrow band of vegetation and

trees exist on the shoreline. Significant mitigation measures have been implemented for wetland mitigation from industrial development. This parcel has been placed in Zone 5 to reflect the current backlying industrial use.

Prior Forecast Designation: Industrial

# Parcel 143 - (38.7 Acres)

Zone 3, Sensitive Resource Management

- Wetlands
- Visual

This parcel is located in a bend of the river at CRM 60.2R. The island known as Clinton Island is predominately forested and is important riparian wildlife habitat. Forested and emergent wetlands are present. There is currently an agricultural license for hay on 11 acres directly behind the island. Buffers have been established to protect shoreline vegetation. The agricultural license is an important part of the Melton Hill goose management plan. This island and slough should be given visual protection because they are within the viewscape of waterfront homes in Clinton and offer a scenic change to boaters. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations-Islands

#### Parcel 144 - (28.1 Acres)

Zone 4, Natural Resource Conservation

This forested parcel is located at CRM 60.2R directly behind parcel 143. It was placed in Zone 4 to provide habitat for forest wildlife. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations-Industrial

#### Parcel 145 - (2.0 Acres)

<u>Zone 3</u>, Sensitive Resource Management • Heritage

This very small, wooded parcel is located at CRM 60.2R directly behind parcel 144. It is recommended for designation as a natural area (habitat protection area) and is the home for Canada lily *(Lilium canadense)*, listed as Threatened in Tennessee. This parcel was placed in Zone 3 to protect this rare plant. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations-Industrial

# Parcel 146 - (174.2 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Heritage
- Visual

This parcel is located at CRM 60.5L. This forested parcel is located at CRM 60.9L. This parcel is also known as Lost Ridge. The southern-most section of this parcel is very steep and cliff-like. Six sensitive cultural sites are located on this parcel. A power line crossing is just below Clinton Island with a cave system and a stream leading into it. Also, rare plants on this parcel are *Lilium canadense* and ginseng *(Panax quinquefolius)*. There is a large canebrake, which is considered to be a rare community, on the south shore. This is the second-highest-ranked parcel on Melton Hill Reservoir for forest-based resource management. Resource management data have been collected on this parcel. In addition, this area is visually unique and provides a buffer between Carden Farm Industrial Park and Eagle Bend Industrial Park. Navigation restrictions occur along the shoreline of the entire parcel. Two navigation buoys are also present. This parcel has been placed in Zone 3 to protect cultural sites, rare plants, wetlands, and preserve the visual integrity of the parcel. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Industrial

# Parcel 147 - (4.4 Acres)

Zone 4, Natural Resource Conservation

This parcel consists of three separate areas and is located at CRM 60.5R. This narrow strip of land begins at TVA property marker 85 and extends to TVA property marker 16-1-14 (Map 16D). A navigation buoy is located on the northern-most portion of this parcel. A very small forested wetland is located at markers 84 to 81. Navigation restrictions are present on the shoreline. The most downstream tract is the site of a shoreline stabilization project. An important island for riparian wildlife habitat is included. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations-Industrial

# Parcel 148 - (0.9 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands

Located at CRM 60.5R, these two small parcels have been placed in Zone 3 to protect a sensitive cultural resource sites and a small forested wetland is located at TVA property markers 84 - 81. This parcel was placed in Zone 3 to protect the sensitive resources previously mentioned.

Prior Forecast Designation: Reservoir Operations-Industrial

# Parcel 149 - (20.2 Acres)

Zone 3, Sensitive Resource Management

Cultural

This parcel is located at CRM 61.2R and is located between TVA property markers 16-1-14 and 126 (Map 16D). An agricultural license is in place for hay crops, with appropriate shoreline buffers. This parcel was placed in Zone 3 to protect a large cultural resources site. Any impacts to this area must be coordinated with Cultural Resources staff to avoid adverse impacts. The shoreline fronting this parcel is restricted by navigation. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Commercial Landing

# Parcel 150 - (3.0 Acres)

Zone 4, Natural Resource Conservation

This parcel is located at CRM 61.4L. This narrow parcel, in the bend of the river, is located just south of Parcel 146, between TVA property markers 31 and 25 (Map 15D). The shoreline is very wooded and steep with an outcrop of rock. This parcel also has navigation restrictions along the shoreline. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Located in the center of this parcel (between TVA markers 15-109 and 15-25 southward to TVA markers 18-107 and 15-108) is a tract of land (1.5 acres) that was sold for industrial purposes. Requests for water-use facilities will not be considered.

# Parcel 151 - (17.9 Acres)

Zone 3; Sensitive Resource Management

- Wetlands
- Visual
- Heritage

This parcel is located at CRM 61.8L. This parcel consists of one large island (Aulton Island) and an adjacent smaller island to the west. The island is a forested wetland. A small pond area has been created by beavers. These islands are unique and should be preserved because they are visually distinctive. This parcel was placed in Zone 3 to protect the sensitive wetlands and rare plants. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations-Island

# Parcel 152 - (24.7 Acres)

Zone 3, Sensitive Resource Management

- Heritage
- Wetlands

This parcel is located at CRM 63.0L. Most of this shoreline is forested. It is located directly across from Eagle Bend Industrial Park and has two power lines crossing the parcel. Forested wetlands are located on both banks of Little Dismal Creek. Located adjacent to Little Dismal Creek is the Yarnel farmhouse. The house was constructed in 1850 after the family moved away from the low-lying flatlands. The barn located behind the house is constructed of the same logs that were used in the house previously located in the flood region. Consideration should be given to protect the viewscape of the offsite historic home. Activities proposed adjacent to this parcel will require notification to TVA's historic architect to avoid adverse impacts. This parcel was placed in Zone 3 to protect sensitive rare plants and wetlands. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Industrial, Public Recreation, and Reservoir Operations

# Parcel 153 - (11.6 Acres)

Zone 5, Industrial/Commercial

This narrow strip of shoreline begins at TVA property marker 126 (Map 16D) and extends to marker 17 (Map 17D), which is the limit of our landrights. This narrow strip fronts Eagle Bend Industrial Park where numerous industries have located. This land was placed in Zone 5 to reflect the backlying industrial use. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Industrial

# Parcel 154 - (2.0 Acres)

# Zone 6, Recreation

This parcel is located at CRM 63.8L between TVA property markers 6 and 16 (Map 16D) and is leased by the Tennessee Wildlife Resources Agency (TWRA) for public recreation purposes. A paved public launching ramp and gravel parking area are located onsite. An old farmhouse, constructed between 1910 and 1920, is located on private land behind this parcel and overlooks the Eagle Bend Industrial Park. Consideration should be given to protect the viewscape of the offsite historic farmhouse. Activities proposed adjacent to this parcel will require notification to TVA's historic architect to avoid adverse impacts. The shoreline is mostly forested, except for the launching ramp area. This parcel has been placed in Zone 6 to reflect the current use. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Public Recreation

# Parcel 155 - (2.4 Acres)

Zone 4, Natural Resource Conservation

This parcel is located at CRM 64.0L. This parcel was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

# Parcel 156 - (1.9 Acres)

Zone 3, Sensitive Resource Management

Cultural

This parcel is located at CRM 64.1L and is a narrow shoreline strip with shrubs and trees. The backlying private property is relatively flat and used for agricultural purposes. This parcel has been placed in Zone 3 to protect a sensitive cultural resource. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

# Parcel 157 - (0.8 Acres)

Zone 4, Natural Resource Conservation

This parcel is located at CRM 64.5L and was placed in Zone 4 to protect the shoreline vegetation zone. This forested zone along the shoreline contributes to the ecology of

the reservoir by providing food and habitat for diverse populations of plants and animals. Trees and understory vegetation protect water quality by filtering nutrients, sediments, and other pollutants from runoff before they reach the lake. They also provide shade, cover, and a food source for fish. Their roots help bind soil particles together and minimize soil erosion. In addition, vegetation preserves shoreline beauty for lake users. Requests for water-use facilities will not be considered.

Prior Forecast Designation: Reservoir Operations

#### Parcel 158 - (3.8 Acres)

Zone 3, Sensitive Resource Management

- Cultural
- Wetlands

This parcel is located at CRM 65.0L, extending from approximately TVA property marker 24 to 44 (Map 17D). It is a narrow forested strip along the lake which is part of a river bluff forest. A sensitive cultural site is also present on this parcel. Scrub-shrub wetlands are located in the cove area. Requests for water-use facilities will not be considered.

# Glossary

# GLOSSARY OF TERMS

- **100-year floodplain** the area inundated by the 1 percent annual chance (or 100-year) flood.
- **agricultural licensing** Some parcels or portions of parcels designated for other purposes or uses may also be suitable for interim agricultural licensing. These parcels have been identified, using the criteria contained in TVA's agriculture instruction. Normal tenure for a TVA agricultural license is five years. Land with extreme erosion potential may not be licensed for agricultural use unless erosion and sediment controls, including the use of BMPs, can be successfully implemented. Further investigation and/or mitigation of adverse impacts to natural or cultural resources may be required prior to approval of license agreements.
- benthic refers to the bottom of a stream, river, or reservoir.
- cumulative impacts impacts which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions, regardless of what agency or person undertakes such actions (40 CFR 1508.7).
- **dam reservation** lands generally maintained in a park-like setting by TVA to protect the integrity of the dam structure, hydroelectric facilities, and navigation lock. The reservation also provides for public visitor access to the TVA dam facilities and recreation opportunities, such as public boat access, bank fishing, camping, picnicking, etc.
- **direct impacts** effects which are caused by the action and occur at the same time and place (40CFR 1508.4).
- **dissolved oxygen** the oxygen dissolved in water, necessary to sustain aquatic life. It is usually measure din milligrams per liter or parts per million.
- drawdown area of reservoirs exposed between full summer pool and minimum winter pool levels during annual drawdown of the water level for flood control.
- **dredging** the removal of material from an underwater location, primarily for deepening harbors and waterways.
- embayment a bay or arm of the reservoir.
- emergent wetland wetlands dominated by erect, rooted herbaceous plants such as cattails and bulrush.
- fecal coliform common intestinal bacteria in human and animal waste.
- **flood plains** any land area susceptible to inundation by water from any source by a flood of selected frequency. For purposes of the National Flood Insurance Program, the floodplain, as a minimum, is that area subject to a 1 percent or greater chance of flooding (100-year flood) in any given year.
- flowage easement tracts privately owned lakeshore properties where TVA has (1) the right to flood the land as part of its reservoir operations, (2) no rights for vegetation management, and (3) the authority to control structures, under Section 26a of the TVA Act.

- **Forecast Process** process used for planning the use of TVA reservoir lands. TVA staff would provide a record of actual and prospective uses indicated for particular properties. A forecast record book was prepared for each TVA reservoir to serve as a general guide for use or development to benefit TVA staff interests and the local or regional economy. Decisions on the best use of the property were made, using internal agency expertise. The new land use planning process will eventually replace the Forecast system as the mechanism for identifying acceptable uses of TVA reservoir land. A major difference between the two methods is the involvement of the public in the planning process.
- fragmentation the process of breaking up a large area of relatively uniform habitat into one or more smaller, disconnected areas.
- indirect impacts effects which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable (40 CFR 1508.4).
- macroinvertebrates aquatic insects, snails, and mussels whose species, genus, etc., can be determined with the naked eye.
- mainstream reservoirs impoundments created by dams constructed across the Tennessee River.
- **marginal strip** the narrow strip of land owned by TVA between the water's edge and the adjoining private property, on which the property owner may construct private water-use facilities upon approval of plans by TVA.
- neotropical migrant birds birds which nest in the United States or Canada and migrate to spend the winter in Mexico, Central America, the Caribbean, or South America.
- **physiographic provinces** general divisions of land with each area having characteristic combinations of soil materials and topography.
- plan tract a numbered parcel of TVA fee-owned land which, prior to the plan, has had no long-term commitments affecting future land uses as assigned through the reservoir land planning process.
- **prime farmland** generally regarded as the best land for farming, these areas are flat or gently rolling and are usually susceptible to little or no soil erosion. Prime farmland produces the most food, feed, fiber, forage, and oil seed crops with the least amount of fuel, fertilizer, and labor. It combines favorable soil quality, growing season, and moisture supply and, under careful management, can be farmed continuously and at a high level of productivity without degrading either the environment or the resource base. Prime farmland does not include land already in or committed to urban development, roads, or water storage.
- **Reservoir Operations tracts** Prior to the reservoir lands planning process (1979), TVA made land-use decisions based on a forecast system approach. The term *reservoir operations* was used to identify specific TVA land where the field District Manager had been given the authority by the TVA Board of Directors to approve or deny minor shoreline alterations requested by adjacent private landowners. In cases where property owners had no rights of ingress or egress across TVA property but owned land adjacent to a Reservoir Operations tract, the agency could provide a letter permit, allowing the property owner the right to construct preapproved private shoreline improvements. In most cases, TVA retained the

right to request the removal of the improvements upon 30 days' written notice. If the property owner did not comply within the designated grace period, TVA could remove them at the owner's expense.

During TVA's formative years (1930s and 1940s) when public land was more abundant, the agency wanted to assist in providing recreation access to the reservoir wherever feasible. Reservoir Operation tracts provide this opportunity and are disbursed throughout the entire TVA Valleywide reservoir system. Some reservoirs had few, while others had large numbers of these tracts. Under the forecast system, Reservoir Operation tracts and other land uses were selected by TVA staff with no formal public participation or external involvement.

Over the years, TVA has sold, transferred, or otherwise committed both large and small blocks of public land. Today TVA is at a point where the agency has only scattered remnants of land remaining for public use and other benefits. TVA's initial reservoir land base of 600,000 acres above normal pool elevation has been reduced Valleywide to less than 80,000 acres of uncommitted public land. Because of increased public pressure placed on TVA's shrinking land resources, the agency no longer recognizes Reservoir Operation tracts as a viable land use. In 1993, a policy decision was made that any undeveloped areas designated as Reservoir Operations would remain undeveloped.

All uncommitted TVA land, including Reservoir Operation tracts, are included as planned land under TVA's current reservoir land management planning process. There were 58 tracts around Melton Hill formerly identified for Reservoir Operations. Collectively these tracts account for 450 acres of TVA public land on Melton Hill Reservoir.

- residential access Prior to development of the Melton Hill Reservoir plan, TVA permitted owners of private land which adjoined certain parcels of TVA land to construct and maintain facilities for private use. These facilities, some of which are boat docks, boat houses, picnic shelters, decks, walkways, sea walls, and landscaping, were only permitted under certain conditions and at certain locations. Consistent with this plan's objectives to determine the most suitable use for remaining public reservoir land, TVA will continue to consider such requests for private use only on selected parcels or portions of parcels where such use was previously considered and where the proposed use will not conflict with the interests of the general public. The Plan map and parcel descriptions identify where TVA will consider requests for such improvements. On some parcels where such improvements have been permitted in the past, no new requests will be considered. Existing improvements which have not been formally approved by TVA will either be officially permitted (where the parcel descriptions indicate that additional requests will be considered) or will be dealt with as violations, as the parcels indicate. Consideration of future requests on tracts so identified in the plan will be handled on a case-by-case basis and will be reviewed by appropriate TVA staffs, specifically including—but not limited to—cultural resources, heritage, and navigation operations. Further investigation or mitigation of adverse impacts to natural or cultural resources may be required before approval of individual requests for private shoreline improvements.
- **riparian zone** an area of land that has vegetation or physical characteristics reflective of permanent water influence. Typically a streamside zone or shoreline edge.
- riprap stones placed along the shoreline for bank stabilization and other purposes.

- riverine having characteristics similar to a river.
- Section 26a review process Section 26a of the TVA Act requires TVA review and approval of plans for obstructions such as docks, fills, bridges, outfalls, water intakes, and riprap before they are constructed across, in or along the Tennessee River and its tributaries. Applications for this approval are coordinated appropriately within TVA and USACE. USACE issues a joint public notice for those applications that are not covered by a USACE nationwide, general, or regional permit. The appropriate state water pollution control agency must also certify that the effluent from outfalls meets the applicable water quality standards.
- scrub-shrub woody vegetation less than about 20 feet tall. Species include true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions.
- **shoreline** the line where the water of a TVA reservoir meets the shore when the water level is at the normal summer pool elevation.
- significant cultural resources Some of the tract descriptions state that "the tract contains significant cultural resources" or that "cultural resource considerations may affect development of the tract." However, many of the parcel descriptions contain no reference to archaeological or other cultural resources. The lack of such references within a tract description does not necessarily indicate that significant cultural resources do not exist. The use of any tract for developmental purposes may require additional archaeological testing or mitigation of adverse impact to archaeological sites. The costs of required testing or mitigation would be the responsibility of the developer.
- stratification the seasonal layering of water within a reservoir due to differences in temperature or chemical characteristics of the layers.
- substrates the base or material to which a plant is attached and from which it receives nutrients.
- summer pool elevation the normal upper level to which the reservoirs may be filled. Where storage space is available above this level, additional filling may be made as needed for flood control.
- tributary reservoirs impoundments created by dams constructed across streams and rivers that eventually flow into the Tennessee River.
- **turbidity** all the organic and inorganic living and nonliving materials suspended in a water column. Higher levels of turbidity affect light penetration and typically decrease productivity of water bodies.

upland - the higher parts of a region, not closely associated with streams or lakes.

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

# ACRONYMS

- AEC Atomic Energy Commission
- ARPA Archaeological Resources Protection Act
- **BMPs (Best Management Practices)** a practice, or combination of practices, that has been determined, after problem assessment and examination of alternatives, to be the most effective, practical means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality.
- cfs cubic feet per second
- **CRM** Clinch River mile
- **DOE** Department of Energy
- EA environmental assessment
- EDE effective dose equivalent
- **EIS** environmental impact statement
- **IDT** interdisciplinary team
- **msc** (maximum shoreline contour) an elevation typically 5 feet above the top of the gates of a TVA dam. It is often the property boundary between TVA property and adjoining private property.
- msi mean sea level +
- NAGPRA Native American Graves Protection and Repatriation Act
- NEPA (National Environmental Policy Act) legislation signed into law in 1970 which, among other provisions, requires U.S. government agencies to prepare environmental reviews on proposed policies, procedures, plans, approvals, and other proposed federal actions. Approval of a private water-use facility or sale of an easement to use federal land are examples of federal actions subject to NEPA.
- NHPA National Historic Preservation Act
- **PCBs** polychlorinated biphenyls
- **PSD** Prevention of Significant Deterioration
- SAHI (Shoreline Aquatic Habitat Index) the index used to determine quality of shoreline aquatic habitat, based on seven characteristics important to support good populations of sport and commercial fish.
- SMC Species of Management Concern
- **SMI** (Shoreline Management Initiative) an assessment of residential shoreline development impacts in the Tennessee Valley. TVA is completing an EIS on residential shoreline development impacts throughout the Tennessee Valley
- **TDEC** Tennessee Department of Environment and Conservation.
- **TVA** Tennessee Valley Authority
- TWRA Tennessee Wildlife Resources Agency

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USACE - U.S. Army Corps of Engineers

USDA - U.S. Department of Agriculture

USEPA - U.S. Environmental Protection Agency

USFWS - U.S. Fish and Wildlife Service



<u>U.S. Unit</u>	Metric Equivalent
acre	0.405 hectares, 4,047 sq.meters
foot	30.48 centimeters
inch	2.54 centimeters
mile	1.609 kilometers
ton	0.907 metric tons
yard	0.9144 meters
square foot	0.093 square meters
cubic yard	0.765 cubic meters
centimeter	0.39 inches
hectare	2.47 acres
kilometer	0.62 miles
meter	39.37 inches
metric ton	1.102 tons
square meter	1.196 square yards
cubic meter	1.30 cubic yards