US Army Corps of Engineers

Nashville District

ENVIRONMENTAL ASSESSMENT

Proposed Master Plan Update
J. Percy Priest Lake

October 2007

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PROPOSED MASTER PLAN UPDATE
J. PERCY PRIEST LAKE
ENVIRONMENTAL ASSESSMENT

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1.0 INTRODUCTION

The original JPP Master Plan was approved in 1966 and last updated in 1986. This document serves as a guide for coordination of project development and management of all land and water resources. The intent of an updated Master Plan is to present a current inventory and assessment of resources, provide an analysis of resource use, and evaluate existing and future needs required to protect and improve the value of resources at J. Percy Priest.

With the proposed Master Plan update, an Environmental Assessment (EA) is being completed to evaluate existing conditions and potential impacts of proposed alternatives. The EA is prepared pursuant to the National Environmental Policy Act (NEPA), CEQ regulations (40 CFR, 1500–1517), and the Corps implementing regulation, Policy and Procedures for Implementing NEPA, ER 200-2-2, 1988. Various documents are referenced in this EA as providing background or supplemental information. Those of primary importance include the following: J. Percy Priest Lake Master Plan (1986), Environmental Assessment for Continued Operation, Maintenance, and Management of J. Percy Priest Dam and Reservoir (1987), J. Percy Priest Operational Management Plan Part I Natural Resources Management (1990), and J. Percy Priest Operational Management Plan Part II Park Management (1986). Full citations are included in Section 10.

2.0 PURPOSE AND NEED FOR ACTION

2.1 Purpose and Need

The original Master Plan for J. Percy Priest was approved in 1966; this was followed by a single update in 1986. Since the update was completed, public use patterns have changed significantly and with population growth in the middle Tennessee region increasing tremendously, J. Percy Priest receives constant pressure for recreation and outgrants. With public use at project facilities changing, reallocations of services at these facilities need to be addressed. Changes involving recreation area closures and improvements have occurred since the previous update. In addition, environmentally sensitive areas have been identified that need protection and special consideration.

Master Plans are periodically updated to ensure focus on three primary components: regional and ecosystem needs, project resource capabilities and sustainabilities, and expressed public interests and desires. Updates also ensure environmental mandates and considerations are incorporated (USACE 1996a). Through the implementation of updated Master Plans, project managers can provide responsible and timely protection, conservation, and enhancement of project resources. Project resources include natural, cultural, and man-made features (USACE 1996b).

2.2 Project History

J. Percy Priest Reservoir is located in northern central Tennessee approximately ten miles southeast of Nashville on the Stones River (See Figure 1). This reservoir was authorized by the Flood Control Act of 1948 as one of six flood control reservoirs recommended for Cumberland River tributaries. Originally named Stewarts Ferry Reservoir, the name was changed in 1958 to honor a late Tennessee Congressman. Construction began in 1963 and was completed in 1968. J. Percy Priest was authorized to provide recreation, flood control, and hydroelectric power production. Land acquisition at this reservoir was accomplished under the 1962 Army/Interior Joint Acquisition Policy. This resulted in public ownership of significant amounts of lands surrounding the reservoir. These lands remain especially critical since the lake is set in the midst of a highly developed, rapidly growing urban area. Table 1 shows reference elevations and associated area statistics. Additional project statistics are discussed in Section 4.

For hydroelectric power production, Priest has a single unit for generating approximately 28,000 kilowatts. The yearly average for this unit is production of 70,000,000 kilowatt hours. The operation of J. Percy Priest powerhouse is remotely controlled from Old Hickory Lake. The operational framework for winter and summer pool elevations allows for the storage capacity of potential flood waters during the winter months when precipitation and runoff are the greatest.

Aside from hydropower and flood control, project operations can be divided into recreation and natural resource management. This includes operation and management of recreational facilities as well as outgrants to other public agencies and concessionaires to provide additional features. Natural resource management includes management of lands and waters and coordination with public agencies and non-profit organizations to protect, enhance, and conserve the environmental resources of the project.

Water supply has become an important issue as three municipalities withdraw water to supply drinking water. With increasing populations and development, these municipalities are requesting additional water withdrawals. Developmental pressure has also presented conflicts for recreational use. Most prominent is the loss of hunting lands and encroachment of development near public hunting lands. As private lands are developed, more hunters look to recreate on public lands. Associated with the development of private lands near the lake have been increased requests for development of greenways and use of public lands for utility corridors.

Visitation to the project averages 30+ million visitor hours annually; that equates to slightly more than seven million visitors in 2006. J. Percy Priest continues to provide a variety of recreational opportunities and quality recreational experiences. In order to maintain this quality of services provided to the visiting public and protect and conserve the environmental and man-made resources at this project, updates of the Project Master Plan are needed.

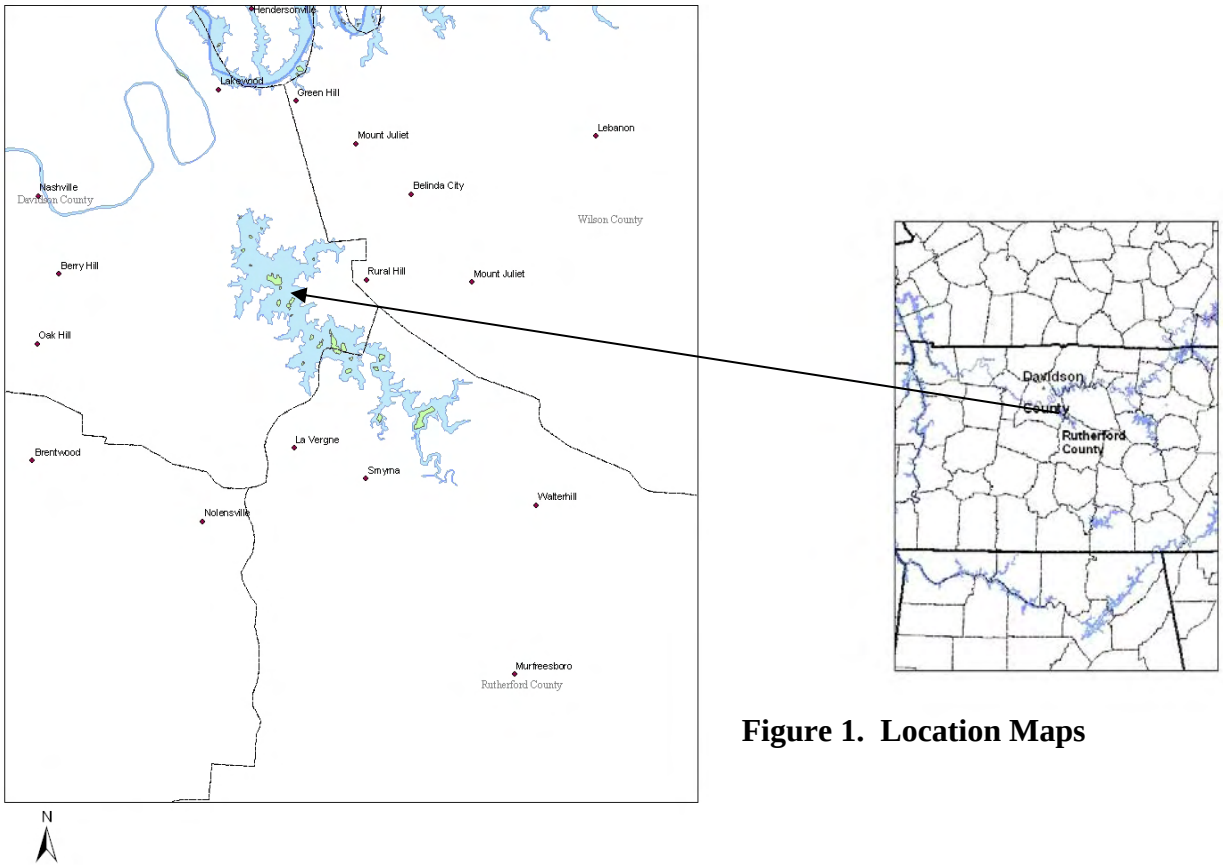

Figure 1. Location Maps

Table 1. Project Elevations and Statistics.

Elevations (above msl)	Description	Acres	River Miles	Shoreline Miles	Acre Feet
522.0	Top of Dam				
504.5	Top of Gates; Total Storage	22,700		265	652,000
463	Spillway Crest				
490	Maximum Power Pool; Normal Summer Pool	41,200	42	213	
480	Minimum Power Pool; Winter Pool	10,570		172	268,000
490-504.5	Flood Storage				260,000
480-490	Power Drawdown				124,000

3.0 ALTERNATIVES

Alternatives evaluated in the Environmental Assessment include the following:

3.1 Full Implementation of Proposed Master Plan Update

With full implementation of the proposed Master Plan Update, three actions would be incorporated: 1) outdated information would be revised to reflect current status and classification

of project facilities and lands, conditions, and usage, 2) future uses and demands would be outlined, and 3) corridors would be designated for existing and future outgrants of project lands.

Project lands are classified as operational/administrative areas, recreational lands, environmentally sensitive areas, and multiple resource management lands. Outgrant utility corridors are categorized as I, II, or III depending upon number of existing outgrants and impacts to the project. Greenway trails, potential routes, and criteria for evaluation are also designated. Additional descriptions of these classifications and project areas are provided in the Master Plan Update.

Full implementation of the proposed Master Plan Update is the preferred alternative. This would allow the most comprehensive update that best reflects environmental stewardship and conservation of J. Percy Priest project lands and waters while meeting public, social, and economic demands.

3.2 No-Action

The No-Action alternative is defined as the Corps taking no action and therefore not implementing an update to the J. Percy Priest Master Plan. With this action, no new resource analysis and allocation would occur, nor would a revision to project sites' inventory be completed. Operation and management of J. Percy Priest would continue as outlined in the 1986 Master Plan Update.

3.3 Implementation of Revised Scope of Master Plan Update

This alternative would include evaluating actions, comments, or requests that come from public review when the EA and Master Plan Update are made available for a 30-day comment period. All comments received during the scoping period for the EA have been addressed and included in this document. All comments received during the public workshop/open house at the J. Percy Priest Resource Manager's Office to discuss the Master Plan Update have been addressed in that document. Any additional information would be discussed in the EA and any additional action alternatives developed would be evaluated.

4.0 AFFECTED ENVIRONMENT

4.1 Project Setting

J. Percy Priest Dam is located on the Stones River at River Mile 6.8. The Stones River enters the Cumberland River at Mile 205.9 in Davidson County, Tennessee. J. Percy Priest Reservoir extends 22 miles up the Stones and continues 6 miles into the West Fork of the Stones River and 10 miles into the East Fork. The Stones River basin lies within Rutherford, Wilson, Cannon, and Davidson Counties. However, the reservoir lies primarily within Davidson (57%) and Rutherford (42%) Counties; one percent of the reservoir is within Wilson County. J. Percy Priest Lake covers 14,200 acres at normal pool elevation of 490 feet above mean sea level (msl). This area includes 42 river miles and 213 shoreline miles. Total project area at normal pool elevation

with public lands and waters is 33,054 acres. Winter pool elevation is held at/near elevation 483 msl to accommodate potential runoff during the flood season December through March.

The Corps operates and maintains five campgrounds, nine picnic/day use areas, and seven access ramps. There are five commercial marinas on the lake that provide services to the visiting public. Approximately 10,000 acres of project lands are outgranted to Tennessee Wildlife Resources Agency (TWRA) for wildlife management. In addition, Metropolitan Nashville Davidson County, State of Tennessee, and City of Smyrna provide recreational opportunities on J. Percy Priest through real estate instruments.

4.2 Climate, Physiography, Topography, Geology, and Soils

Climate. Summers in Metropolitan Nashville are moderately hot and humid with the temperature averaging in the 80's in July. Winters can be chilly to cold with average lows of 27 during January. Average annual rainfall is 48.1 inches, typically with winter and spring being the wettest and fall being the driest (TWC 2007).

Physiology and Topography. The reservoir lies within two ecoregions recognized by the Tennessee Department of Environment and Conservation (TDEC). The Outer Nashville Basin (Ecoregion 71h) is characterized by open hills, gently rolling to steep; some plains with hills; highly dissected escarpments; moderate gradient bedrock and gravel-bottomed streams. The Inner Nashville Basin (71i) consists of smooth to rolling plains, with some small hills and knobs. Streams are low gradient with clear water on bedrock substrate (EPA, 1997). Most of the land area lies between elevation 480 and 550 feet. The highest point in the watershed is Short Mountain, while the lowest occurs in the streambed at the mouth of the Stones River. Outstanding natural features within the project area include sinkholes and cedar glades, both results of the predominant limestone formations common to this area (USACE 1990).

The project area is divided into two sections, based on natural characteristics. The lower portion of the reservoir, from the dam site to Fate Sanders Bridge, is wide and deep and resembles the more typical lake setting. This section is more suitable to intensive recreational development and is located within or closer to the urban center of Nashville and major transportation routes. The upper portion of the reservoir, which extends from Fate Sanders Bridge to Walter Hill Dam on East Fork Stones River and to Nice Mill Dam on West Fork Stones River, is narrower and shallower. This area is more riverine. Though not as heavily populated and pockets of rural community remain, this section lies close to fast growing cities such as Murfreesboro and Smyrna. This portion of the reservoir is more suited to less intensive activities such as hunting, hiking, and canoeing. Additional descriptions are provided in the Master Plan Update.

Geology. Bedrock throughout the watershed is a Paleozoic limestone with minor shaley phases. Formations of Mississippian Age comprise a relatively small section of the basin. The entire reservoir lies within the Central Basin of Tennessee and formations are of Ordovician Age (USACE 1990).

Soils. A majority of project lands are thin clay soils. Soil depth ranges from less than six inches, which is most common, to several feet. Permeability is slow to moderate. Saturation is

reached immediately upon becoming wet, but moisture is lost very quickly. Percolation is limited due to the underlying limestone bedrock, with is often at or very close to surface. Low fertility and high susceptibility to erosion are characteristics of these clay soils. Soils of the project area severely limit vegetative growth (USACE 1990).

4.3 Aquatic Environment

Hydrology. In addition to recreation and aquatic habitat, water within the reservoir is needed to meet the demands of hydroelectric power production and water supply. In recent years, water supply has become an increasing demand for this resource. This issue was evaluated in 2003 through a water supply storage reallocation report and EA (USACE 2003). Demands for hydropower will continue to be met as this is one of the initial authorized purposes for this project.

Inflows to the reservoir during summer and fall months of some years are less than evaporation losses. The Stones River basin is naturally flashy due to shallow bedrock. As development around the lake continues and natural surfaces become more impervious as areas are converted to roads, driveways, and rooftops, periods where inflows to the reservoir are lessened could be extended. Runoff from impervious surfaces causes a higher peak inflow immediately following storm events, but does not allow for groundwater infiltration to supplement base flows. This issue would be more apparent in the headwaters and tributaries of the reservoir where reduced stream flows would be visible. Not only does this cause concern for providing suitable habitat for aquatic fauna, but reduced water levels would affect all uses of the lake—hydropower production, recreation, and water supply.

Water Quality. J. Percy Priest Reservoir is considered fully supporting designated uses. Livestock, urban runoff, and land development are the primary sources of pollution within the watershed (TDEC 2006).

J. Percy Priest Reservoir is a moderately deep, temperature-density stratified storage reservoir. Stratification typically begins in spring and lasts through fall. During this period, oxygen is quickly depleted below 20 to 25-foot depths. Oxygen depletion results from nutrient loading by tributary streams due to activities such as agriculture and urban runoff. Phosphate bearing, natural formations and wastewater effluents are also contributing factors. In addition, high nutrient levels trigger algal blooms, which increases biological oxygen demand and further reduces available oxygen.

Maintaining oxygen levels above TDEC recommendations of 5 milligrams per liter (mg/l) for sustaining aquatic life are possible within the reservoir's upper stratum. However, deeper reservoir stratums experience problems with depleted oxygen. In anaerobic conditions, metals such as iron and manganese can occur in high concentrations and can stay in solution. This situation occurs for at least five months while the lake is stratified and can create potential problems downstream during hydropower releases, as water for this operation is pulled from depths greater than 15 feet (USACE 1990, USACE 2003). Hydrogen sulfide odors are also noticeable during this same period and worsen as the season progresses.

Aquatic Resources. Previous studies of benthic macroinvertebrates, phytoplankton, and fisheries have been completed in J. Percy Priest Reservoir. Phytoplankton taxa found are common throughout all Cumberland River Basin lakes, and communities present can be considered typical for the waterbody. Macroinvertebrate communities sampled in the five major tributaries to the reservoir are diverse. Most major taxa expected were represented. Differences in species composition represented different substrate types found in the tributaries. A high number of organisms indicates overall high productivity in the watershed. Fisheries within the reservoir are typical of those found in reservoirs of the southeastern US. Numerous species of forage, rough, and game and sport fish were represented (USACE 2003). The project Operational Management Plan (OMP), Part I (USACE 1990) gives additional detail of fisheries within the reservoir. Largemouth bass (*Micropterus salmoides)*, crappie (*Pomoxis* spp.), rockfish (*Morone saxatilis*), and catfish are important sport fish within the lake (USACE 2003). Tailwater fish species are similar to those within the reservoir. Additional sport fish include sauger (*Stizostedion canadense*) and trout (*Oncorhynchus mykiss*); however, these are seasonal due to sauger spawning migration and winter releases for trout. Much of the Stones River below the dam becomes slackwater from Cheatham Lake. Tennessee Wildlife Resources Agency is responsible for fisheries management as specified in the OMP, Part I for J. Percy Priest (USACE, 1990). Management techniques include fish stocking and habitat enhancement. The Corps works with TWRA to stabilize water elevations, especially during spring spawning seasons as well as manage water releases as necessary.

4.4 Terrestrial Resources and Land Use

Vegetation. Detailed descriptions of terrestrial resources, both vegetative and wildlife can be found in the OMP, Part I (USACE 1990). Where lands are designated as recreational areas, these sites are identified and discussed in the OMP, Part II (USACE 1986).

Approximately 12,250 acres of the public lands are forested. Much of this area is secondary succession from former agriculture or logging operations. Predominant species include oaks (*Quercus* spp) and hickories (*Carya* spp) interspersed with sassafras (*Sassafras albidum*), sweetgum (*Liquidambar styracfula*), hackberry (*Celtis occidentalis*), and dogwood (*Cornus florida*).

Cedar glades are dispersed throughout the project area and occur on shallow, poor soils. Aside from the dominant eastern redcedar (*Juniperus virginiana*), winged elm (*Ulmus alata*), post oak (*Quercus stellata*) and pignut hickory (*Carya glabra*) are common. Common shrubs include glade privet (*Forestiera ligustrina*), snowberry (*Symphoricarpos albus*), and fragrant sumac (*Rhus aromatica*).

Cedar glades are identified as environmentally sensitive areas and provide habitat for several rare plant species, many of which are endemic to Middle Tennessee. Many areas within the project lands are identified as state natural areas, state forest, or conservation sites. These sites are shown on maps within the Master Plan Update. Protection and conservation of this unique ecosystem is a priority.

Project resources are under continual pressure for outgrant to municipalities and others for construction of roadways and utility corridors. The proposed Master Plan Update outlines areas where these types of outgrants and associated land disturbance could occur.

Wildlife. TWRA manages approximately 10,896 acres of J. Percy Priest lands for wildlife management and providing recreational opportunities. Lands within the lower reaches of the project area receive intensive recreational use, primarily due to being within a highly populated area. Wildlife most compatible for habitats in this reach are small animals, such as rabbit (*Sylvilagus floridanus*), squirrel (*Sciurus carolinensis*), opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), fox (*Vulpes vulpes/Urocyon cinereoargentus)*, coyotes (*Canis latrans*) and songbirds. Deer (*Odocoileus virginianus*) are also common as they have adapted to an urban environment. In the upper reaches of the lake, where there are larger tracts of natural habitat, game species such as deer and wild turkey (*Meleagris gallopavo*) are common. This area is also popular for hunting both small and large game. TWRA has designated a waterfowl resting area within the Poole Knobs area of the reservoir.

In addition to management efforts by TWRA, the Corps wildlife management program includes providing food plots, nesting structure, and cover habitat.

4.5 Threatened and Endangered Species

As taken from project documents, Appendix 2 includes a comprehensive list of species of concern occurring within Davidson, Wilson, and Rutherford Counties. Many of the species are plants that occur in cedar glade habitats. Cedar glades, and associated threatened and endangered species, are designated in the proposed Master Plan update as environmentally sensitive areas. This designation outlines restrictions and limitations to land uses for the protection and conservation of these areas and species.

4.6 Archaeological and Historic Resources

The Stones River Basin plays a significant role in Middle Tennessee history, both frontier era and Civil War period (USACE 1987). J. Percy Priest has several significant cultural sites. These range from ancient Native American sites to settlement sites abandoned with lake impoundment. Many of the sites are now inundated by the reservoir. Inventory and surveying was conducted prior to inundation in coordination with National Park Service and the University of Tennessee. The project has developed a Cultural Resources Management Plan as an appendix to the Master Plan that further outlines management and protection of this resource.

4.7 Air Quality

Rutherford County is considered in attainment with national ambient air quality standards (NAAQS) for which attainment designations have been issued (correspondence TDEC, Division of Air 2007). Per a 2005 Metro/Davidson County report, the county is in attainment with NAAQS for the 2005 or 2003-2005 monitoring period for ozone, particulate matter $(PM)_{10}$ and $_{2.5}$, sulfur dioxide, nitrogen dioxide, and carbon dioxide.

4.8 Socio-Economic Resources

In 2006, J. Percy Priest recorded 32 million visitor hours. This translates to $61 million economic benefit to the local economy. Given the populations of Davidson and Rutherford Counties exceed 650 million residents as shown in the table below, the visitor base to the project is easily recognized.

Table 2. Population Statistics for J. Percy Priest Reservoir Area

	Davidson County	**Nashville**	**Rutherford County**	**Murfreesboro**	**Tennessee**
Population	575,261 (2005)	544,765 (2003)	218,292 (2005)	78,074 (2003)	5,962,959 (2005)
Housing Units	270,516 (2005)	242,451 (2000)	90,147 (2005)	28,815 (2000)	2,637,441 (2005)
Person Per Square Mile	1,135.2 (2000)	1,152.6 (2000)	294.1 (2000)	1,764.9 (2000)	138.0 (2000)
Median Household Income	$40,878 (2003)	$39,232 (1999)	$48,545 (2003)	$39,705 (1999)	$37,925 (2003)
Information provided by US Census Bureau					

4.9 Recreation Resources

In addition to flood control and hydropower, recreation is an authorized purpose of J. Percy Priest. There are many recreational opportunities at this project. Fishing, swimming, boating, hiking, horseback riding, picnicking, camping, sightseeing, and hunting are a few. The Corps operates and maintains five campgrounds, nine picnic/day use areas, and seven access ramps. There are five commercial marinas on the lake that provide services to the visiting public. Approximately 10,000 acres of project lands are outgranted to TWRA for wildlife management, environmental education, and hunting. In addition, Metropolitan Nashville Davidson County, State of Tennessee, and City of Smyrna provide recreational opportunities on J. Percy Priest through real estate instruments.

With limited funding sources available, operation and maintenance of recreational facilities has been challenging. This intensifies with increased population of this region and residential development within the project area. As an effort to better use project facilities and meet the publics' requests for recreation, the Nashville District Corps of Engineers developed its Recreation Excellence at Army Lakes (REAL) Program. Under this program, one recreation area was closed and others reduced to boat launching. At other locations amenities are proposed for relocation or construction. All of these actions were implemented to achieve more efficient use of intensively used areas while providing improved facilities and services to project visitors.

A trend of recent years that has been growing in intensity is the construction of greenway trails and corridors. These include pathways to link parks and cities via a walking or biking pathway. A popular feature with greenways is to parallel streams or rivers. Nashville, Murfreesboro,

LaVergne, and Smyrna are all growing cities within the J. Percy Priest area and are rapidly building greenways. To accomplish their proposed plans, these cities have requested or plan to request use of Corps-managed lands for construction of greenways.

Currently as listed in the Master Plan Update, there are four existing greenways on project lands: Stones River greenway (3 miles in length below the dam), Alta Lake connector (1.2 miles in the vicinity of Bell Road/Dodson Chapel Road), Smyrna (4 miles between Sam Ridley Parkway and Stewart Creek), and Long Hunter State Park (various sections). There are four proposed greenways that would make use of J. Percy Priest lands: LaVergne greenway in the Parthenon Boulevard vicinity; North Murfreesboro greenway in the vicinity of Walter Hill Recreation Area; Smyrna greenway along Stewart Creek and Weakley Road; and Long Hunter State Park greenway using portions of existing trails in Couchville, Bakers Cove and Bryant Grove.

In response to scoping for this EA, the cities of LaVergne and Smyrna responded that their future development plans would include requests for use of Corps lands for recreational development. LaVergne has interest in the Hurricane Creek ramp area for low impact development, such as greenways, trails, playgrounds, canoe access, and other features. In addition, the Parks and Recreation Department may want to consider an area in the vicinity of Poole Knob Recreation Area for greenway development. LaVergne eventually plans to link its greenway trail system with Smyrna's. Smyrna indicated interest in a greenway for connecting Sharp Springs to Jefferson Springs Recreation Areas and greenways along the river to connect Florence Road with the city of Murfreesboro's trail system.

A recreation and environmental concern associated with proposed greenway corridors is the bisecting or total loss of large tracts of public lands. In additional to environmental impacts, loss of hunting lands is a concern. Hunting lands are receiving additional pressures as residential developments continue to creep closer to the boundaries of Corps-managed lands. Directly associated with land development is the loss of private hunting lands. As these lands are no longer available, more hunters are moving to public lands. With increased use of lands for hunting and increase use of hiking and horseback riding trails comes a concern of conflicting uses of project lands.

4.10 Health and Safety

Safety of project visitors and project staff are highest priority in daily project operations. Facilities and recreational areas are routinely evaluated to ensure sites are safe for visitor use. In implementing the REAL program, safety is better achieved where resources are allocated to areas most needed. Project staff conducts numerous water safety programs and public announcements to educate children and project visitors about ways to be safe on the lake.

In coordination with TWRA, water safety hazards and no wake zones are marked with buoys. Park Rangers provide visitor assistance and work with Metro and county law enforcement agencies to ensure public safety. TWRA and Metro police provide water safety patrols on the reservoir.

4.11 Aesthetics

Management objectives include maintaining scenic vistas while limiting impacts that would negatively affect aesthetics. Aesthetics is an important feature that enhances the recreational experience. The perimeter lands around J. Percy Priest Reservoir provide a natural setting that is aesthetically pleasing as well as buffering the lake from development and negative impacts such as erosion and stormwater runoff. However, there are problems in maintaining these aesthetic qualities. Project resource staff is continually investigating trespasses that include activities such as timber cutting and land destruction by unauthorized off road vehicles. In addition, litter and illegal trash dumping both on project lands and project waters are continual problems. Vandalism within recreation areas also occurs frequently.

Other concerns that impact aesthetics are demands put upon project resources for uses such as road and utility line corridors. As J. Percy Priest is surrounded by residential, commercial, and industrial development, these demands are continually increasing. In many instances, these requests are in areas where the natural vegetation and landscape would be disturbed.

5.0 ENVIRONMENTAL CONSEQUENCES

The following table summarizes which resources are likely to be affected by implementation of a Master Plan Update or No Action. Discussion of potential impacts then follows.

Table 3: Resources Likely Affected With Proposed Implementation

Affected Environment	Likely to be Affected
Climate, Physiography, Topography, Geology and Soils	Yes
Aquatic Environment	Yes
Terrestrial Resources/Land Use	Yes
Threatened & Endangered Species	Possibly
Archaeological & Historic Resources	Possibly
Air Quality	No
Socio-economics	Yes
Recreation Resources	Yes
Health & Safety	Yes
Aesthetics	Yes

5.1 Climate, Physiography, Topography, Geology, and Soils

5.1.1 Full Implementation of Proposed Master Plan Update

Areas of geological or soils concerns would be protected with implementation of the proposed Master Plan Update. In addition to designating environmentally sensitive areas, such as cedar glades, designating utility and greenway corridors could prevent encroachment into incompatible areas where soils, geology, or topography need to be protected. Designated areas would also limit the cumulative area of potential disturbance by keeping the infrastructures within a banded area and not looking at individual routes that could further impact topography, geology and/or soils.

5.1.2 No-Action

With no action implemented, areas of special concern for topography, geology, and soils could still be protected based on the 1986 Master Plan and individual review of proposals. However without special consideration or designation of corridor routes, these areas of concern are more likely to be encroached upon or damaged. Individual assessment of utility or greenway routes would likely result in multiple sites being proposed by potential outgrantees, therefore the footprint and magnitude of environmental damage is increased. In addition without implementation of the proposed update, areas of special interest not already discussed in the 1986 Master Plan, such as cedar glades, would not be formally recognized as environmentally sensitive areas, nor would the ranking criteria for these areas be adopted.

5.2 Aquatic Environment

5.2.1 Full Implementation of Proposed Master Plan Update

Aquatic resources are less likely to receive direct impacts from a proposed Master Plan Update. However, secondary impacts to this resource would be realized. These impacts would be concentrated to the transitional zone adjacent to the shoreline. With designated land uses and development corridors, potential erosion and stormwater runoff to J. Percy Priest would be limited and reduced. With designated areas for corridors and areas of special concern identified, impacts to the riparian corridor surrounding the lake can be minimized. Protection or conservation of the riparian area around the lake provides positive impacts to aquatic resources by providing canopy cover, thereby providing reduced temperatures around the waters edge and a source of detritus, as well as tree roots holding the banks in place. In addition, a wider riparian corridor with mature trees serves to filter runoff before reaching the reservoir. As impervious surfaces increase, the amount of runoff increases and the quality of this water source is impaired with sediment, oils, and other pollutants. An area surrounding the reservoir to capture this runoff becomes increasingly important.

5.2.2 No-Action

Impacts to aquatic resources would most likely be affected through increased land disturbance if utility and greenway corridors are not limited to designated areas. With the potential for multiple areas to be considered, runoff from land disturbance is increased, thereby causing additional non-point source pollution to reach the lake. Impacts to aquatic resources would be limited to the zones along the shoreline. This could negatively impact both the availability of habitat being lost due to siltation as well as macroinvertebrate and fisheries that use this area. There would be no impacts to the open water habitat.

5.3 Terrestrial Resources and Land Use

5.3.1 Full Implementation of Proposed Master Plan Update

Terrestrial resources would receive the greatest amount of disturbance from approved requests for utility and greenway corridors. Impacts to this resource would be limited most with implementation of the full proposed update. Greenway corridors and routes for proposed or future utility lines would be designated. Resource management staff have proposed the route locations such that disturbance to project resources would be avoided or limited to the greatest extent possible. Therefore, by implementing these designations to outline routes of access, impacts to terrestrial resources and wildlife can be concentrated in the most suitable areas.

Classification or reclassification of project lands as proposed in the update would allow proper designation of lands as they are currently being used or have future potential for use. By properly designating the lands, protection and proper use could more easily be accomplished.

5.3.2 No-Action

With no implementation of a Master Plan Update, requests for use of project lands for utility and greenway corridors would be reviewed on a case by case basis. There would be no predetermined layout for these routes; therefore potential impacts to the resource could be significant. In addition there would be no classification or reclassification of project lands to

better represent current or future uses. Similarly, as this update is being made available to the public, they would not be advised of various changes that have occurred at recreation and management areas at J. Percy Priest.

5.4 Threatened and Endangered Species

5.4.1 Full Implementation of Proposed Master Plan Update

Threatened and endangered species would benefit most from full implementation of a proposed Master Plan update with the designation of Environmentally Sensitive Areas. Many of the plant species of concern occur in cedar glade habitat, which would have special designation. With this special designation there would be limitations and restrictions to land uses that would further protect and conserve species of concern. Designated utility and greenway corridors would limit disturbance to areas where species of concern most likely occur. However, more detailed evaluation of each proposal would occur to ensure impacts were avoided.

5.4.2 No-Action

Threatened and endangered species would continue to be protected. In addition, sensitive areas such as cedar glades would still be considered areas of special significance. However, without the Master Plan update, there would not be a formal designation Environmentally Sensitive Areas.

5.5 Archaeological and Historic Resources

5.5.1 Full Implementation of Proposed Master Plan Update

Management and protection of archeological and historic resources would benefit with full implementation of a proposed Master Plan update. Utility and trail corridors that have been designated with the update have been routed to avoid disturbance to these resources. Each request for land use would also be further evaluated to ensure avoidance of historic resources.

5.5.2 No-Action

Management and protection of archeological and historic resources would continue without an updated Master Plan. Without designated areas for utility and trail corridors, there would be the need for more extensive review and evaluation to ensure no sites of interest are likely to be affected with each outgrant request.

5.6 Socio-Economic Resources

5.6.1 Full Implementation of Proposed Master Plan Update

Full implementation of the proposed Master Plan Update would accurately reflect project facilities inventory and conditions. In addition this would allow allocation of resources to project facilities that are used most by project visitors. This in turn addresses socioeconomic benefits gained from project visitation. It is understood that municipalities lying in close proximity to J. Percy Priest reservoir receive economic benefits from visitors to the lake. As project facilities are best managed to provide for recreation and environmental conservation, adjacent municipalities could continue to benefit from the visitation.

In addition to revenue to the locally economies, these cities may rely upon the reservoir for water supply and dilution of wastewater discharges. Proposals from these municipalities are expected for real estate instruments for activities such as roads, utility lines, parks, and greenways. Growth within these cities and counties increases the pressure and use of project resources and facilities. With full implementation of the update, areas for requests such as those named above would be designated where these requests could be accommodated to the fullest extent possible while not comprising project resources and authorized purposes.

5.6.2 No-Action

By implementing no action, the Master Plan would not be updated to accurately reflect current project inventories, classification, and future needs. Project facilities in need of reallocation would remain as outlined in the 1986 Master Plan update. Therefore optimization of project resources would be limited. Economic benefits to surrounding municipalities would continue based on visitation to J. Percy Priest Reservoir. Outgrants requested by municipalities would continue to occur, however review of each request would not be as expeditiously evaluated with no designated corridors for project use.

5.7 Recreation Resources

5.7.1 Full Implementation of Proposed Master Plan Update

Recreation needs of the visiting public would be better accommodated with implementation of a Master Plan update. Reallocation of facilities and services would be reflected in the master plan by having an inventory and assessment that accurately reflects existing project facilities as well as those proposed to accommodate future needs and demands.

With this update, greenway and trail corridors within J. Percy Priest managed lands have been assessed and a category level (I, II, or III) assigned. This categorization includes amount of impact, trail surface, trail width, and number of uses with level I being the highest impacting. More detailed discussion of this assessment is available within the Master Plan Update.

With full implementation of the proposed update, currently proposed and future greenways and trails would be evaluated based on the established categorization. Implementation of the Nashville District Corps Mitigation policy would require that proposals consider avoidance, minimization, and then mitigation for impacts from greenway construction projects to Corps managed lands and resources. In addition, corridor routes have been designated around project lands that delineate where trails should be located to accommodate requests while protecting and conserving the natural resources and limiting possible environmental impacts.

In addition to avoiding environmental impacts, proposed routes for greenways address loss of other recreational uses, such as public hunting. Trail designs, such as that proposed for North Murfreesboro greenway where parallel trails are proposed to the greatest extent possible, would accommodate various uses and avoid conflicts, such as with horse riders and hikers.

To further address potential loss of public hunting lands, the Master Plan update outlines change in designation of project lands from recreation areas to lands within TWRA wildlife management

areas. Areas such as Fall Creek, Fate Sanders, Lamar Hill, Stewart Creek, and Poole Knobs would be considered for change in designation. This would serve to offset loss of acreage due to greenways or other uses that would inhibit hunting.

5.7.2 No-Action

Provision of recreational facilities and services would continue at J. Percy Priest Reservoir without an update to the J. Percy Priest Master Plan. However, the plan by which the Resource Manager and staff operate would not accurate reflect the current status of project facilities. Nor would there be additional measures in place, such as trail corridors and additional land use designations, to better accommodate recreational needs while protecting the natural resources.

5.8 Health & Safety

5.8.1 Full Implementation of Proposed Master Plan Update

As status and classification of project land and facilities are revised and future needs and demands are outlined, resource staff at the reservoir would be more readily prepared to address health and safety issues. As outlined in the Master Plan update, health and safety of project visitors and staff have been considered in the analysis of current and future needs of project resources. Therefore, implementation of the update would assist resource staff in ensuring health and safety is addressed.

By outlining designated areas for trail corridors and trail design, safety of project visitors is also addressed. Corridors have been placed along areas to avoid conflict of use.

5.8.2 No-Action

Safety will remain highest priority for daily park operations. Projects and programs to promote visitor safety and awareness would continue even with no implementation of a Master Plan update. Review of reach trail proposal would include evaluation to limit conflicts of use to the greatest extent possible.

5.9 Aesthetics

5.9.1 Full Implementation of Proposed Master Plan Update

With continual requests for outgrants of project lands, implementation of the proposed update would reduce potential impacts to the aesthetics of J. Percy Priest Reservoir. By developing corridors for activities such as trails, greenways, and utility lines, these activities are concentrated such that there would be less potential for land disturbance. With less land disturbance, aesthetic qualities are retained.

In addition with an updated inventory and resource analysis, those areas providing quality aesthetics are more accurately identified.

5.9.2 No-Action

Without implementation of a Master Plan Update, there is potential for increased impacts to aesthetics of the reservoir. Outgrants would continue to be requested. If these are not

concentrated within a designated area, there is additional likelihood of land disturbance; this in turn could negatively affect aesthetic qualities.

5.10 Cumulative Impacts

Cumulative impacts would result from the incremental impact of the proposed action added to those of other past, present, or reasonably foreseeable future actions in the local area. Geographical boundaries for this discussion of cumulative impacts are J. Percy Priest Reservoir and counties the project lies within. Temporal boundaries established span from reservoir impoundment (1968) to fifty years future projection.

Past and Present Actions
Stones River was impounded for the creation of J. Percy Priest Reservoir. Authorized purposes for construction were flood control, hydropower generation, and recreation. Allocation of water within the reservoir for water supply to municipalities and private interest has also placed a demand on project resources. Project purposes for recreation and associated natural resource management is the focus of the Master Plan Update.

Recreational usage of J. Percy Priest has been tremendous due to close proximity to downtown Nashville. Visitation to recreation areas has been steady and/or increasing. As a result, the reservoir contributes heavily to the local economy in visitor spending and local jobs. Associated with the high volume of visitation is use of recreational facilities. Many areas reach and sometimes exceed capacities for parking, camping and picnicking facilities. Boat traffic on the reservoir is often in heavy volume.

Also because of close proximity to the metropolitan area, urban and suburban development around the reservoir has been tremendous. As this development has increased, so have requests for rights-of-way and licenses on public lands for community infrastructures such as utility lines, greenways, and roadways. This impacts land and aquatic resources. However, the reservoir is fully supporting designated uses as outlined by TDEC (2006).

Reasonably Foreseeable Future Actions
Urbanization is expected to continue. Therefore pressures on the lake's resources are expected to continue. Carrying capacities of each resource would continue be maximized and/or exceeded. In addition, damages such as water quality due to runoff, continual requests for outgrants, encroachments on public lands, etc are expected to continue and possibly become worse. Necessary precautions would need to be implemented to ensure the resources are not overused or damaged to an unacceptable level. The Master Plan Update is one tool that Resource staff implements to ensure optimal use of facilities and resources and conservation and protection of natural resources while providing recreational opportunities to the visiting public.

Effects
As the area around J. Percy Priest continues to experience pressure from residential development, terrestrial resources surrounding the reservoir become even more of a limited resource. With the loss of vegetated land area outside Corps boundaries, wildlife is likely to be

concentrated in the remaining forested lands. In addition, more pressure is placed on the public lands for the facilities and activities that are provided.

Water quality and aquatic resources within the lake have been termed as generally good. Land development, livestock, and urban runoff are primary pollution sources. As development around the reservoir continues to increase, urban runoff will continue to be a source of pollution that could affect water quality of the lake. This increases the need to maintain the forested buffer surrounding the lake. With urban development and loss of pervious surfaces such as grass and trees comes loss of water being infiltrated into groundwater. This will place additional pressures on the reservoir to meet water demands.

With the increase in residential development in the surrounding counties, visitation to J. Percy Priest Reservoir will continue to increase. Demands for recreational facilities will also continue to increase. Facilities will need continual repair and upgrade to satisfactorily meet visitor expectations. In additional there will be conflicting demands for recreational opportunities on the reservoir and project lands. The continued request for various uses of project lands by municipalities and other interests will also add more demands on the limited project lands and waters.

A Master Plan Update would provide a tool for the Resource staff of J. Percy Priest to ensure natural resources and project facilities are being used to the greatest extent possible without degradation to the resource. Revising existing data to reflect current status and classification as well as project future uses and demands would better provide for accommodating demands for varying recreational opportunities while avoiding potential conflict. Designating areas for existing and future outgrants of project lands would limit locality and severity of potential impacts while expediting evaluation period for requests.

6.0 ENVIRONMENTAL COMPLIANCE

Compliance with Federal Acts and Executive Orders are summarized in Table 4.

6.1 Fish and Wildlife Coordination Act

The Corps is required to coordinate with the USFWS and TWRA under the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 USC 661 et seq.). Coordination was initiated with a scoping notice; no concerns were raised. Review of the Environmental Assessment is pending; no concerns are anticipated.

6.2 Endangered Species Act

The Endangered Species Act (ESA) requires the determination of possible effects on or degradation of habitat critical to Federally-listed endangered or threatened species. Implementation of an updated Master Plan would not affect threatened or endangered species. Individual requests for use of project lands would be evaluated to ensure compliance with this Act.

6.3 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, requires Federal agencies to promote "nondiscrimination in Federal programs substantially affecting human health and environment". In response to this directive, Federal Agencies must identify and address disproportionately high and adverse human health and environmental effects of their programs, policies, and activities on minority and low-income populations. The final step in the environmental justice evaluation process is to evaluate the impact of the project on the population and to ascertain whether target populations are affected more adversely than other residents.

Implementing the proposed Master Plan Update would not disproportionately affect minority or low-income populations.

6.4 Cultural Resource Requirement

Section 106 of the National Historic Preservation Act of 1966 requires the Corps to identify historic properties affected by the proposed action and to evaluate the eligibility of those properties for the National Register of Historic Places. The Act also requires Federal agencies to provide the Advisory Council on Historic Preservation an opportunity to comment on undertakings through the process outlined in the Council's regulations (36 CFR 800).

There would be no affect to cultural resources with implementation of an updated Master Plan. Individual requests for use of project lands would be evaluated to ensure compliance with this Act.

Table 4: Federal Act/Executive Order Compliance

Act/Executive Order	Status	Compliance
Wetlands (EO 11990)		
Prime/Unique Farmlands	N/A	N/A
Floodplain Management (EO 11988)	N/A	N/A
Clean Water Act		
Section 404	No effect	N/A
Section 401	No effect	N/A
NPDES	No effect	N/A
Fish and Wildlife Coordination Act	No effect	C
Endangered Species Act	No effect	C
National Historic Preservation Act	No effect	C
Environmental Justice (EO 12898)	No effect	C
Clean Air Act	No effect	C
Comprehensive Environmental Response Compensation and Liability Act (CERCLA)	N/A	N/A
Resource Conservation and Recovery Act (RCRA)	N/A	N/A
Wild and Scenic Rivers Act	N/A	N/A
Rivers and Harbors Act	N/A	N/A
N/A—not applicable C--Compliant		

7.0 SCOPING AND PUBLIC CONCERN

7.1 Public Involvement

Scoping letters were mailed to state and federal governments with jurisdiction by law or special expertise and members of the public. (See Appendix 1 for mailing list.) This EA and unsigned FONSI are being circulated for a thirty-day comment period.

In addition an open house was held at the J. Percy Priest Resource Manager's Office on 26 April 2007. The public was invited to attend and discuss the 2007 revision to the J. Percy Priest Master Plan and any other issues of concern. Approximately six people were in attendance. There were no specific issues related to the Master Plan or where there concerns expressed that should be addressed in this EA.

7.2 Scoping Responses

A scoping letter was issued on February 26, 2007. Comments are summarized below; full comments are included in Appendix 1. These issues have been addressed in this Environmental Assessment.

- Tennessee Department of Environment and Conservation (TDEC), Air Pollution Control Division provided air quality monitoring status information. This office does not expect the action alternative to adversely impact local air quality if adequate measures are employed to control fugitive emissions and waste is properly disposed.

- Tennessee Historical Commission stated that the project may affect properties eligible for listing in the National Register of Historic Places and coordination with this office should continue. *Response: a copy of the EA is being provided to this office.*

- Consolidated Utility District (CUD) provides water supply to Rutherford County through withdrawals from J. Percy Priest Lake. CUD expressed concerns for water quantity as it sees a need for additional withdrawals. CUD is also concerned for water quality from erosion and sedimentation as well as chemical spills from truck wrecks on Interstate 840. *Response: use of project waters for water withdrawals are discussed in this EA; however requests for withdrawals are beyond the scope of this review and would be addressed through the Corps Hydrology and Hydraulics Branch. Water quality is a concern addressed in this EA.*

- TDEC, Division of Natural Areas commented in favor of updating the Master Plan due to outdated document and recent growth and land use changes in the Stones River watershed. The Division notes there are several populations of rare species identified near J. Percy Priest Lake and has special concern for cedar glades. The Division asks that the Corps use previously provided data as well as new information provided with its

response to consider rare species habitat protection in the Master Plan update. *Response: this information was considered during the preparation of the Master Plan update.*

- Tennessee Wildlife Federation commented it strongly supports the alternative to update the master plan. The agency requested the EA address the following issues: impacts of land uses on the resource, impacts on natural resources management, and greenway connection corridors. *Response: these issues were discussed within the EA.*

- TDEC, Division of Solid Waste did not see anything of concern for its office with the proposed Master Plan update.

- TDEC, Division of Recreation Educational Services commented that it sees no involvement by this office for this project.

- TDEC, Division of Water Supply (DWS) provided a review of wells and municipal water supplies located within the project area. In addition, DWS commented that any work planned within the project area should address construction and drainage around/through sinkholes and provided a list of erosion control requirements in the vicinity of sinkholes. This office also requires pre and post construction mapping where sinkholes are affected. *Response: there are no activities proposed at this time. Review of actions will consider potential impacts to sinkholes.*

- Smyrna Department of Parks commented they are interested in ensuring continued execution of outgrant proposals they have initiated with the Corps. The Department of Parks in very interested in expanding greenways within the City's area of responsibility. *Response: requests for proposed and future uses of Corps' lands acknowledged. Initial coordination will be with J. Percy Priest Resource Manager.*

- LaVergne Department of Parks commented they are interested in continued and future coordination to acquire real estate instruments for Corps managed lands for greenways and possibly park facilities. *Response: requests for proposed and future uses of Corps' lands acknowledged. Initial coordination will be with J. Percy Priest Resource Manager.*

7.3 Environmental Assessment Responses

The Environmental Assessment is being circulated for a 30-day comment period. Responses will be summarized and all letters and transmittals will be included in Appendix 1.

8.0 CONCLUSIONS

This Environmental Assessment did not reveal significant onsite impacts with the preferred alternative, full implementation of the proposed Master Plan Update. By adopting this preferred alternative, the resources at J. Percy Priest Reservoir would be allocated to best provide services for public recreation as well as ensuring environmental protection and conservation. In addition the classification and inventory of the resources would be updated to reflect the most accurate use of project lands. The Master Plan Update has evaluated past, present, and anticipated future uses of project lands and resources. Implementation of this proposed update would provide the best representation of the project can best carry out its authorized purposes while ensuring best use and conservation of all resources, natural, cultural, and man-made.

This EA evaluates potential impacts that would occur with proposed and future requests for project lands for activities such as utility lines, roads, and greenways. The proposed Master Plan update has identified corridors where these activities would be allowed. In addition, levels of impacts are outlined based on previous disturbance for utility lines and design features (such as surface material, trail width, etc) for greenways. Requests will be evaluated to ensure proposed design location and layout meet criteria outlined in the Master Plan and this EA. Those meeting criteria may require additional coordination with agencies such as US Fish and Wildlife Service and Tennessee Historical Commission to ensure compliance with applicable Acts. Proposals that do not meet the criteria will be further evaluated and may require additional environmental assessments.

9.0 REFERENCES

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The Weather Channel (TWC), 2007. Monthly Averages for Nashville, Tennessee. www.weather.com.

10.0 LIST OF PREPARERS

Kim Franklin, Biologist
EA Preparation

Tim Higgs, Environmental Engineer
EA Review

Maurice Simpson, Conservation Biologist
EA Review for Natural Resources Management Branch

Mark Vaughn, Conservation Biologist
Master Plan Preparation

APPENDIX 1

Environmental Assessment Review Responses
Scoping Letter and Responses
Mailing Lists

Scoping Letter and Responses
Mailing Lists

DEPARTMENT OF THE ARMY
NASHVILLE DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1070
NASHVILLE, TENNESSEE 37202-1070

FEB 26 2007

IN REPLY REFER TO

Project Planning Branch

To All Interested Parties:

The U.S. Army Corps of Engineers (Corps), Nashville District, in accordance with the National Environmental Policy Act (NEPA) is preparing an Environmental Assessment (EA) to assess impacts of a proposed supplement to the J. Percy Priest (JPP) Master Plan.

The original JPP Master Plan was approved in 1966 and last updated in 1986. This document serves as a guide for coordination of project development and management of all land and water resources. The intent of an updated Master plan is to present a current inventory and assessment of resources, provide an analysis of resource use, and evaluate existing and future needs required to protect and improve the value of resources at J. Percy Priest.

By way of this letter, we are soliciting public and agency comments concerning environmental issues that should be addressed. We encourage comments not only about JPP lands and waters, but also of plans or proposals for any other development that may impact or influence project resources.

Two alternatives will be evaluated: No action and updating the Master Plan. No Action means that there would be no supplement to the existing Master Plan and no new resource classification, assessment, and inventory would occur. Updating the Master Plan would mean permanent changes to the existing document.

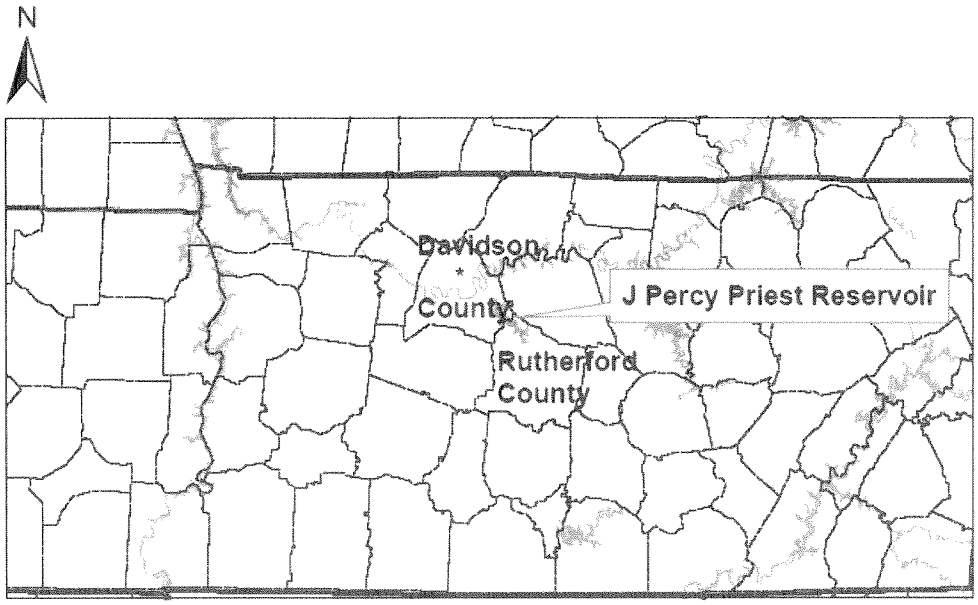
This letter serves to initiate public involvement requirements of Section 106 of the National Historic Preservation Act of 1966, as amended. Section 106, implemented by regulations at 36CFR800, requires the Corps of Engineers to consider the effects of its undertakings on historic properties. Updating the Master Plan will not constitute an undertaking; however implementation of any changes in land use may require further coordination and consultation with the Tennessee State Historic Preservation Officer. This letter also serves to initiate public involvement that is an integral part of supplementing or updating Nashville District project master plans.

If you have any information, comments, or questions, please contact Kim Franklin by writing to the above address or calling (615) 736-7954. Please submit your comments no later than March 30, 2007, to assure evaluation and inclusion in the process. Your participation is appreciated.

Sincerely,

Douglas L. Radley

Douglas L. Radley, AICP
Chief, Project Planning Branch



J Percy Priest Vicinity Map

30 April 2007

MEMORANDUM FOR RECORD

SUBJECT: J. Percy Priest Master Plan Update

1. On 26 April 2007 an open house was held at the Resource Manager's Office from 5PM until 8PM. The public was invited to attend and discuss the 2007 revision to the J. Percy Priest Master Plan and any other issues of concern.

2. Approximately six people attended the open house. Questions and comments were general in nature. There were no specific issues related to the Master Plan nor where there concerns expressed that should be addressed in the Environmental Assessment (EA) for the Master Plan Update.

3. A copy of this memorandum will be included in the EA Appendix for Scoping and Public Involvement.

Kim Franklin

Kim Franklin
Biologist
Project Planning Branch
(615) 736-7954

Franklin, Kimberly S LRN

From: Robin Grubb [rgrubb@lavergne.org]
Sent: Friday, April 20, 2007 5:38 PM
To: Franklin, Kimberly S LRN
Subject: City of La Vergne and J. Percy Priest

Hello Kim,

Thank you for taking the time to speak with me earlier this week.

The City of La Vergne would like to make sure we are included as a consideration for future partnership and development around Hurricane Creek Boat Ramp area.
We are in the early discussion stages of our plan and therefore don't have specific requests at this time. We do however have some general guidelines and ideas as to the kinds of low-impact improvements we might elect to include.

Here is a non-inclusive list of some of the items of consideration:

Greenway
Greenway Trail Head
Restrooms
Picnic Shelter(s)
Playground Area
Parking Area
Outdoor Amphitheatre
Nature Center
Nature Trail
Canoe Ramp/Access
Dog Off-Leash Area
Disc Golf

An initial Greenway request has been submitted to the Corp for this area, and as we update our Greenway Master Plan, we may also want to consider some of the Corp property on the other side of La Vergne towards Poole Knob. It is part of the overall plan that we link to the Smyrna Greenway System, but this connection point has not been determined at this time, so we may also need to negotiate with the Corp on some Greenway Trails in this area as well.

We are excited about the opportunity to have a positive working relationship with the Corp as we collaborate our resources to meet the needs of the citizens and user groups in the area. The City of La Vergne is well aware of the extensive environmental concerns and approval procedures of the Corp, and we are looking forward to submitting our plans and requests to the Corp in the near future so that we can begin the process of hashing out a great plan.

Thank you so much for your time and consideration on this matter, and if you have any questions please feel free to call.

Robin Grubb, CPRP

Director

La Vergne Parks & Recreation

5093 Murfreesboro Road

La Vergne, TN 37086

Phone: (615)793-3224

Fax: (615)793-9213

Date: 30 March 2007		**Telephone Number:** 615.459.9773	
Visit:		**Incoming:** XX	**Outgoing**:
NAME OF CONTACT: Mike Moss			
ORGANIZATION: City of Smyrna, Dept of Parks			
ADDRESS:	**Street:** 100 Sam Ridley Pkwy		
	Street 2: Town Centre		
	City, State, Zip: Smyrna, TN 37167		
E-MAIL:	Mike.moss@townofsmyrna.org		
SUBJECT:	JPP Master Plan Update		

SUMMARY: Mr. Moss was responding to the scoping notice his office had received. Parks main concern is continued execution of outgrant proposals by Smyrna. Areas where Parks has specific interest include: 1)greenway corridor to connect Sharp Springs to Jefferson Springs; 2)greenways along the river—connect with Florence Rd and City of Murfreesboro system; Parks also sees Jefferson Springs as possible connector; 3)parcel of land at Florence Road in vicinity of Nissan and new subdivision. Parks has interest in parcel if Corps willing to consider. Area is currently agriculture; Parks has identified in its Master Plan.

Mr. Moss may follow up conversation with letter. He is also providing a copy of Smyrna's Parks and Recreation Master Plan.

Kim Franklin

Kim Franklin

4 Apr 2007

Date

Date: 29 March 2007	**Telephone Number:**	
Visit:	**Incoming:** xx	**Outgoing**:
NAME OF CONTACT: Al Majors		
ORGANIZATION: TDEC Div of Solid Waste		
ADDRESS:	**Street:**	
	Street 2:	
	City, State, Zip: Nashville, TN	
E-MAIL:		
SUBJECT:	Responding to JPP Master Plan Scoping Letter	

SUMMARY:

Mr. Majors acknowledged a scoping letter had been received by the Division of Solid Waste, attention Mr. Mike Apple.

Per review, this office did not see anything of concern regarding a proposed master plan update for J. Percy Priest Reservoir.

I informed Mr. Majors I would make a record of our conservation to be included as Division of Solid Waste's comment during the scoping period.

Kim Franklin

Kim Franklin

30 March 2007

Date

TENNESSEE WILDLIFE FEDERATION
Conserving Our Wildlife & Natural Resources Since 1946

29 March 2007

Attn: Project Planning Branch
Department of the Army
Nashville District, Corps of Engineers
P.O Box 1070
Nashville, Tennessee 37202-1070

RE: Scoping letter soliciting comment for EA on J. Percy Priest Master Plan Update

This letter is in reference to the scoping process, required by the National Environmental Policy Act (NEPA) and to voice those issues which the Tennessee Wildlife Federation (TWF) has concern about and would like to see individually addressed in the Environmental Assessment.

TWF's mission is champion the conservation, sound management and enjoyment of Tennessee's wildlife and natural resources for current and future generations through stewardship, advocacy, and education. We at the Federation have been heavily engaged with the J. Percy Priest (JPP) resource staff in the development of the master plan draft, and offer the following comment.

We believe it is in the best interest of wildlife, sportsmen and women, the USACE, all lease holders and the other property users that the **Alternative: "Updating the Master Plan"** be drafted and adopted as the document that will guide the resource into the years ahead. For example, it has been over 20 years since the last update to the JPP plan and many new techniques, research and policies have changed/improved. Thus, we strongly support this update.

It is evident that the JPP resource is being impacted by the growth occurring in surrounding cities and counties. We would ask that the Environmental Assessment take special note to address several issues which we will outline below.

1. ***Impacts of land uses on the resource:***

   The Tennessee Wildlife Resources Agency has long been the major partner and lease holder of lands within this resource. Nearly 11,000 acres of land and over 14,000 surface acres of water are currently managed by the TWRA and are available to the sportsmen and women of Tennessee to use for the purpose of

300 Orlando Avenue • Suite 200 Nashville, Tennessee 37209 Telephone: (615) 353-1133 Fax: (615) 353-0083 Web: www.tnwf.org

recreational hunting and fishing (which has been defined as the two major land uses of importance to this resource.)

With adjacent undeveloped private lands being lost as a direct result of development, not having a place to hunt and fish is becoming a reality. In recent years, sportsmen of middle Tennessee have fallen victim to other uses that have resulted in the loss of public hunting and fishing lands within this resource. We ask that the EA take measures to identify the impacts of future land uses upon existing hunting and fishing lands owned by USACE. Additionally, we would ask that these analyses consider economical, social and natural recourse (e.g., fish, wildlife, and their habitats) factors.

More specifically, municipalities that request use of existing USACE lands for other recreational activities are creating a dramatic effect upon USACE public lands, those who use the lands, and those who live near the lands. We ask that the impacts of past supplements to the JPP Master plan since 1986, which grant land to these municipalities and has created a net loss of hunting and fishing opportunities and wildlife habitat, be reviewed. We also request that the dramatic effect upon USACE public lands, those who use the lands, and those who live near the lands be reviewed from financial, social and natural resource management perspective.

Other impacts that surrounding growth is creating such as water withdrawal, sewage treatment effluent, storm water run-off, caring capacity of recreational watercraft and marina expansion, should also be addressed in depth.

In regards to the marinas currently using the resource, we feel that it is necessary to address practices which could have negative impact on the water resource such as sewage dumping, gasoline and oil leakage, and other normal operating procedures that routinely take place with a marina.

2. *Impacts on Natural Resources Management:*

As previously stated, TWRA has been a long time partner with the USACE and has provided a sound wildlife and fisheries management. As a result of this management, TWRA and USACE have engaged sportsmen as the primary tool used to apply management strategies.

Without public land access for hunting and fishing, the managing partner (TWRA) has a difficult time managing the resource. Furthermore, when lands are taken out of management and placed into other public or private entities, where the attention to wildlife and their habitats are not a priority consideration, the loss of habitat is a foregone conclusion.

The most effective method for conserving our natural lands is to do just that, conserve them in their original state and not alter or permanently remove habitat

or the ability to manage habitat. Additionally, we also believe managing natural landscapes can be more cost effective long-term, when compared to managing properties with recreational amenities.

The loss of management tools, and the ability to manage, coupled with the loss of habitat will have long-reaching effects on the habitat itself, the wildlife and the users of the resource. Without these tools, TWRA and USACE cannot effectively mange the resource. A fragmented habitat intertwined with open, park like areas, trails, concrete paths and other amenities invite further human disturbance as well as exotic and invasive species.

3. ***JPP Greenway Connection Corridors as proposed:***

It is widely known that plans are being developed to design, propose, and construct a series of greenways and their extensions in an effort to connect from Nashville through La Vernge and Smyrna and into Murfreesboro.

Through many conversations and correspondence with many of the stakeholders, we feel it imperative this Environmental Assessment address the entire project, as opposed to small scale proposals that are submitted from each of the individual stakeholders. As you may be aware, NEPA specifically forbids federal agencies from "piecemealing" the application of environmental reviews that it (NEPA) requires. We view small scale individual review of these greenways proposals on a case by case basis, as a potential "piecemealing" in the application of NEPA.

This is one basis for requesting a wholistic approach to this project and a NEPA process that takes into account the entirety of the project and its cumulative impacts. The impact that a project of this magnitude will have on the resource is large enough that we believe it warrants this approach.

While we support greenways and trails and we realize their importance especially in a growing community. We also believe that a majority of these proposed systems on the USACE lands must be carefully considered and designed, so that not to interfere with existing habitat needs and recreational uses.

The Tennessee Wildlife Federation would like to thank the staff of the JPP resource for their courteous correspondence regarding this matter, and the attention to our previous comments regarding this and other issues. We feel that this resource is a valuable asset to the fish and wildlife and sportsmen and women of Tennessee. Major alteration or loss of these habitats or lands is a drastic measure that should be fully reviewed via the NEPA process.

Sincerely,

Chad Whittenburg

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
WATER SUPPLY
9th Floor, 401 Church Street
Nashville, Tennessee 37243-1549
Phone: (615) 532-0191; Fax: (615) 532-0503

March 29, 2007

Mr. Douglas L Radley AICP
Chief Project Planning Branch
Department of the Army
Nashville District, Corps of engineers
P.O. Box 1070
Nashville, Tennessee 37202-1070

RE: Request for Comments, J. Percy priest (JPP) Master Plan, Nashville (Davidson County) Tennessee

Mr. Radley:

The Division of Water Supply thanks you for the opportunity to provide comments on the J. Percy Priest Master Plan. We have received and reviewed the Request for Comments, on the plan.

Safe Dams Program: A file review was conducted of all registered sites in the Safe Dam Program. None were located within this proposed location. If at any time Mr. Lyle Bentley of the Division of Water Supply needs to be contacted he can be reached at Lyle.Bentley@state.tn.us or by telephone at 615-532-0154.

Wellhead Protection Program: A file review was conducted of all registered sites in the Wellhead Protection/Source Water Protection Area Program. You will be located within the Source Water Protection Areas for LaVergne Water Department, Smyrna Water Department, and Consolidated Utility District. These systems should be notified of any activity that may produce any discharge to surface or ground water in that area. For additional information please contact Mr. Scotty Sorrells at scotty.sorrells@state.tn.us or by telephone at 615-532-9224.

Water Well Program:

A file review was conducted of all the registered private water wells within this proposed location. A copy of the file is attached to this letter. Please be advised that not all the water wells that are in existence are on this database and that there may be older wells that we have no record of as well as hand dug wells whose existence we would not have recorded. Please be advised that there are several springs in the area that may also be used as private water supplies.

Please see Attachment A for a list of wells in the area. All water wells that are encountered should be plugged and abandoned by a licensed well contractor.

The plan for the proposed project locates the project in a karst area, the county you are working in is in mature karst terrain and has abundant sinkholes and other karst features. The plan should address construction and drainage around/through sinkholes.

In Tennessee the modification of sinkholes is regulated under the Underground Injection Control (UIC) Program, which is housed in the Ground Water Management Section. If there is to be a modification of any sinkhole on this project it will be necessary for you to have a letter of authorization from the UIC program to proceed. You will need to contact Scotty Sorrells of my staff to file the application and obtain the authorization.

Our requirements for erosion control in the vicinity of sinkholes is basically the same as erosion control plan around streams required by, the Division of Water Pollution Control. The erosion control plan for sinkholes will need to show a similar work way corridor as for streams. The following are what we require for those entities we regulate:

1) If at any time during the clearing or construction of the property a karst feature is discovered then all work around the area is to stop. Erosion control devices straw bales and silt fence are to be placed and this Division is to be notified within twenty-four (24) hours of the discovery.

2) Install silt fence and straw bales along the entire edge of the sinkhole and around any potential conduit that the water may use to enter the ground water prior to any construction.

3) Note that silt fences are used as a temporary diversion features and generally have a life expectancy of three (3) months.

4) All straw bales shall be placed in a single row, with ends of adjacent bales tightly abutting on another. The barrier shall be entrenched and back filled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of four (4) inches. After the bales are staked and chinked, the excavated soil shall conform to the ground level on the down gradient side and shall be built up to four (4) inches against the up gradient side of the barrier.

5) After every storm event the entire silt fence must be inspected and any needed repairs done at that time. Should any damage occur due to traffic or any other activity the fence must be repaired before the end of each work day.

6) Straw bale barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Necessary repairs to barriers or replacement of bales shall be accomplished promptly. Sediment deposits must be removed when the level of deposition reaches approximately one-half the height of the barrier. Any sediment deposits remaining in place after the straw bale barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

7) The silt fence and straw bales must remain in place and in good working condition throughout the entire development of the property, and until the disturbed area has been stabilized.

Once any construction project around sinkholes has been determined, we will also need a map(s) showing the sinkholes identified before construction that will be modified. At the completion of construction we will also need a map with all the sinkholes that have been modified showing notations with latitudes and longitudes as to the modification performed on the sinkhole. Note that the sinkholes which show on a 7 ½ minute quadrangle topographic map are by no means a complete representation (they typically represent about 5 - 20% of the actual sinkholes).

Please be advised that the sinkhole is considered the entire closed depression whether there is an open throat or not and not just the area near an open throat.

Extreme caution should be used in the filling and construction on or in a sinkhole. It may be necessary to add extra support over the expanse of a sinkhole, even after the sinkhole has been filled. A sinkhole by nature is an unstable geologic area, which has no permanent means of stabilization and is subject to times of movement and settling. This uncontrollable movement may cause some damage to any permanent structure placed on or around the karst feature. The State of Tennessee assumes no responsibility in potential consequences of building on filled depressions of any kind at any time.

Please note also that you may encounter other Class V systems in the form of Large Capacity Subsurface Fluid Disposal Systems (SFDS) at various commercial businesses you may encounter. If any business along the route are being relocated or are connecting to the system that are currently using a SFDS then they should be properly plugged and abandoned.

If you have any questions, feel free to call me at (615) 532-0170 or Scotty Sorrells at (615) 532-9224.

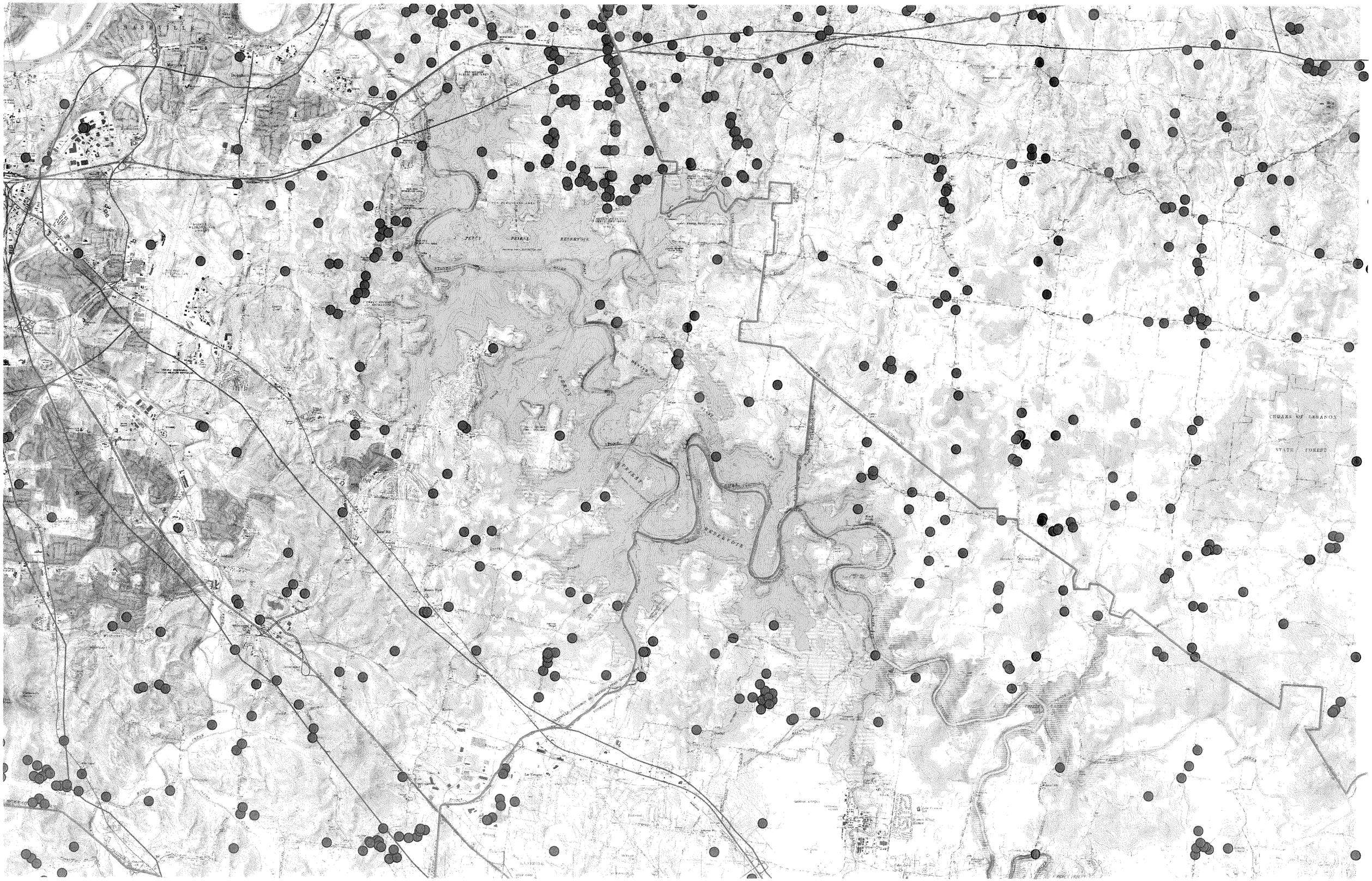
Sincerely,

Thomas A Moss

Thomas A Moss
Deputy Director
Division of Water Supply

cc: Scotty Sorrells, DWS-GWMS UIC Coordinator
Luke Ewing, DWS Manager Water Well Program
Lyle Bentley, DWS Manager Safe Dams Program

ATTACHMENT A
WATER WELLS


NASHVILLE
PERCY PRIEST RESERVOIR
CEDARS OF LEBANON
STATE FOREST

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Recreation Educational Services
10th floor - L&C Tower
401 Church Street
Nashville, Tennessee 37243

March 28, 2007

Mr. Douglas L. Radley, AICP
Chief, Project Planning Branch
Department of the Army
Nashville District, Corps of Engineers
P.O. Box 1070
Nashville, TN 37202-1070

RE: Environmental Assessment (EA) comments proposed supplement to the J. Percy Priest Master Plan

Dear Mr. Radley:

Thank you for including this agency on your contact list for the above referenced document.

After a research of our office's files, we can locate no occasion where a grant administrated by this division would be impacted by the proposed supplement to the J. Percy Priest Master Plan. Therefore, we have no involvement in the subject area from a state or federal level.

Sincerely,

Mark Tummons, CPRP
Director

MT/lh

cc: Kim Franklin, COE, Nashville District

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Natural Areas
14th Floor L&C Tower
401 Church Street
Nashville, Tennessee 37243-0447
Phone 615/532-0431 Fax 615/532-0231

March 21, 2007

Kim Franklin
USACE, Nashville District
P.O. Box 1070
Nashville, Tennessee 37202-1070

Re: EA for Impacts from Proposed Supplement to J. Percy Priest Master Plan

Dear Ms. Franklin:

The Division of Natural Areas (DNA) has reviewed information regarding the environmental assessment for the proposed supplement to the J. Percy Priest Master Plan, and we offer the following comments.

DNA favors updating the Master Plan, given that the last update was over 20 years ago, and given recent growth and land use change in the Stones River Watershed. Also since the last Master Plan update, several populations of rare species have been identified near J. Percy Priest Lake.

Management activities at Priest Lake have the potential to impact several rare species habitat types, most notably cedar glades. DNA currently tracks 14 conservation sites located within a one-mile radius of the Lake. Overall, in the 8-digit HUC Stones River watershed we track a total of 48 conservation sites; many of these sites are cedar glades that provide habitat for rare species endemic only to Middle Tennessee. The locations for populations of these rare species are regularly sent to the Corps. We ask that Corps use this data and the enclosed list of sites to consider rare species habitat protection in the supplement to the Priest Master Plan. For guidance regarding specific species or sites please contact DNA (Reggie Reeves, 615-532-0434).

Thank you for considering Tennessee's rare species and their habitats throughout the planning of this project. For additional information regarding Tennessee's rare and endangered species, please visit our website at http://state.tn.us/environment/na/. Should you have any questions, please do not hesitate to contact me at (615) 532-0440.

Sincerely,

Silas Mathes
Natural Heritage Data Manager

enclosure

CONSOLIDATED UTILITY DISTRICT
Rutherford County, Tennessee

709 New Salem Highway • P.O. Box 249 • Murfreesboro, Tennessee 37133-0249
Telephone 615-893-7225 • Facsimile 615-893-4913

March 12, 2007

Via Certified Mail
7004 2510 0000 8840 6559

Ms. Kim Franklin
Corps of Engineers
P.O. Box 1070
Nashville, Tennessee 37202-1070

RE: Environmental Assessment - J. Percy Priest Lake Master Plan

Dear Ms. Franklin:

With regard to your February 26, 2007 letter, Consolidated Utility District (CUD) would have three major concerns.

Our first concern is water supply. J. Percy Priest (JPP) is the only source of water for Rutherford County. Presently, there are four water systems withdrawing water to supply the fastest growing county in Tennessee. CUD is the largest of these systems serving approximately 40,000 customers and adding 2,500 plus each year. Our current withdrawal permit is for 16 mgd. We have a request to withdraw an additional 14 mgd. At the rate we are growing, we will need the additional supply within the next five years.

Everyone knows the lake is shallow and the actual volume is also a concern. Because the lake is shallow, sedimentation could be a real problem. I know many people think sedimentation comes from construction and agriculture runoff. I believe most sedimentation comes from streams and short turns where water erodes the bank away. I am a strong advocate of a sound stream channelization program to help control erosion and sedimentation.

A smaller concern related to water supply is 840. I have a huge fear of the waters of JPP becoming contaminated by chemical spills caused by a truck wreck along the section of 840 and tributaries to JPP.

I would be glad to discuss these concerns further. Feel free to contact me at 615-225-3310.

Thanking You,

Larry K. McElroy

Larry K. McElroy
General Manager

p/c: James C. Hailey

Printed on Recycled Paper

TENNESSEE HISTORICAL COMMISSION
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
2941 LEBANON ROAD
NASHVILLE, TN 37243-0442
(615) 532-1550

March 5, 2007

Mr. Douglas L. Radley
Coe-Nashville
Post Office Box 1070
Nashville, Tennessee, 37202-1070

RE: COE-N, J. PERCY PRIEST MASTER PLAN/SUPP, UNINCORPORATED, DAVIDSON COUNTY

Dear Mr. Radley:

In response to your request, received on Tuesday, February 27, 2007, we have reviewed the documents you submitted regarding your proposed undertaking. Our review of and comment on your proposed undertaking are among the requirements of Section 106 of the National Historic Preservation Act. This Act requires federal agencies or applicant for federal assistance to consult with the appropriate State Historic Preservation Office before they carry out their proposed undertakings. The Advisory Council on Historic Preservation has codified procedures for carrying out Section 106 review in 36 CFR 800. You may wish to familiarize yourself with these procedures (Federal Register, December 12, 2000, pages 77698-77739) if you are unsure about the Section 106 process.

Considering available information, we find that the project as currently proposed MAY AFFECT PROPERTIES THAT ARE ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES. You should continue consultation with our office, designated consulting parties and invite them to participate in consultation, and provide us with appropriate survey documentation for review and comment. Please direct questions and comments to Joe Garrison (615) 532-1550-103. We appreciate your cooperation.

Sincerely,

Richard G. Tune
Interim Executive Director and
Deputy State Historic
Preservation Officer

RGT/jyg

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
AIR POLLUTION CONTROL DIVISION
9th Floor - L&C Annex
401 Church Street
Nashville, Tennessee 37243-1531

Mr. Douglas L. Radley, AICP
Chief, Project Planning Branch
DEPARTMENT OF THE ARMY
Nashville District, Corp of Engineers
P. O. Box 1070
Nashville, Tennessee 37202-1070

March 1, 2007

Dear Mr. Radley:

This letter is in response to your request for environmental impact assessment in compliance with the following requirements:

Subpart A-- Purpose, Legal Authority, Federal Laws and Authorities

Sec. 58.5 Related Federal Laws and Authorities
(g) Air Quality. (1) ***The Clean Air Act*** *(42 U.S.C. 7401 et. seq.) as amended; particularly* ***section 176(c) and (d)*** *(42 U.S.C. 7506 (c) and (d))*

Subpart D--Environmental Review Process: Documentation, Range of Activities, Project Aggregation and Classification

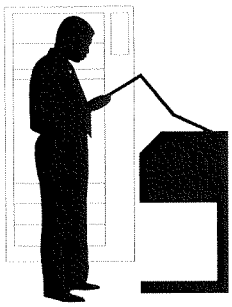
Sec. 58.38 Environmental Review Record

Subpart E--Environmental Review Process: Environmental Assessments (EA's)

Sec. 58.40 Preparing the Environmental Assessment
(1) A Finding of No Significant Impact on the quality of the human environment.

(Continued on next page)

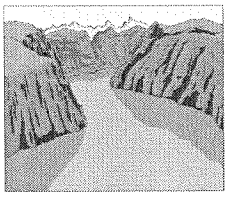
In reference to your request for Air Quality Data concerning *the Proposed Supplement to the J. Percy Priest (JPP) Master Plan Project* dated February 26, 2007. Please note that **Rutherford County** is currently **in attainment** for all Air Quality Standards in accordance with Rules of the Tennessee Department of Environment and Conservation Bureau of Environment/Division of Air Pollution Control Chapter 1200-3-3 Ambient Air Quality Standards. Including the 1 hour Ozone National Ambient Air Standard.



Available air quality data from the current monitoring station(s) either within the project area or, if none exist, nearest to the project area (neighboring county). Monitoring status is subject to change.

County	Monitoring Station(s) in Cty	Type of Monitoring	Location of Nearest Monitor(s)
Rutherford	One	Ozone	Eagleville Area

See the report submitted with this letter.



Micro meteorological conditions influenced by topography that may hinder the dispersal of air emissions are listed below.

County	Topographical Conditions	Locations
Rutherford	Along land and water boundaries - Valleys Mountains	East, West & Middle Stone Rivers J. Percy Priest Lake

(Continued on next page)

Sufficient information is not available to indicate projected emissions from *the Proposed Supplement to the J. Percy Priest (JPP) Master Plan Project*. However, the proposed project is not expected to adversely impact the local air quality provided adequate measures are employed to control fugitive emissions and waste is properly disposed.

Other Rules of the Tennessee Department of Environment and Conservation Bureau of Environment/Division of Air Pollution Control that **may** apply to your project are:

Chapter 1200-3-4 Open Burning
Chapter 1200-3-8 Fugitive Dust
Chapter 1200-3-9 Construction and Operating Permits
Chapter 1200-3-11.02 Hazardous Air Contaminants (Asbestos)

The Division directly serves 91 counties within the state and oversees and assists in the actions of Davidson, Hamilton, Knox, and Shelby counties, which have their own local air pollution control programs. **If you have a question, concern or complaint about air pollution in Davidson, Hamilton, Knox or Shelby counties, please contact the appropriate local air program.**

County Air Pollution Control Agencies - Local Programs

- Nashville/Davidson
  Rob Raney, P.E., Director
  Air Pollution Control Division
  Metropolitan Nashville-Davidson County Health Department
  311 23rd Avenue, North
  Nashville, TN 37203
  Phone: (615) 340-5653
  FAX: (615) 340-2142

- Chattanooga/Hamilton
  Chattanooga-Hamilton County Air Pollution Control Bureau
  6125 Preservation Drive
  Chattanooga, TN 37416-3638
  Phone: (423) 643-5970
  FAX: (423) 643-5972

- Knoxville/Knox
  Ms. Lynne A. Liddington, Director
  Knox County Department of Air Quality Management
  140 Dameron Ave., Suite 242

(Continued on next page)

Knoxville, TN 37917
Phone: (865) 215-5900
FAX: (865) 215-5902

- Memphis/Shelby

  Robert Rogers, P. E., Acting Manager
  Pollution Control Section
  Memphis/Shelby County Health Department
  814 Jefferson Avenue
  Memphis, TN 38105
  Phone: (901) 544-7775 or (901) 544-7653
  Fax: (901) 544-7310

Please contact me at phone number (615) 532-0550 should you need further assistance concerning Air Quality.

Sincerely,

Ms. Pamela J. Stephens

Ms. Pamela J. Stephens
Environmental Specialist
Mobile and Air Resources Management Program
Tennessee Department of Environment and Conservation
Air Pollution Control Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
QUICK LOOK REPORT (AMP450)

Jun. 22, 2005

Ozone (44201) Tennessee PPM (007)

1-HOUR

SITE ID	POC	REP ORG	CITY	COUNTY	ADDRESS	YEAR	METH	VALID DAYS MEAS	NUM DAYS REQ	1ST MAX 1-HR	2ND MAX 1-HR	3RD MAX 1-HR	4TH MAX 1-HR	DAY MAX>/= 0.125	EST DAYS>/= .125	MISS DAYS< 0.125	CERT	EDT
47-001-0101	1	1025	Not in a city	Anderson	FREELS BEND_STU	2004	087	242	245	.094	.091	.089	.083	0	0.0	3		0
47-009-0101	1	0745	Not in a city	Blount	GREAT SMOKY MOU	2004	047	244	245	.094	.091	.089	.087	0	0.0	1		0
47-009-0102	1	0745	Not in a city	Blount	GREAT SMOKY MOU	2004	053	232	245	.079	.075	.074	.073	0	0.0	1		0
47-031-0004	1	1029	Not in a city	Coffee	SUMMITVILLE RD.	2004	014	238	245	.083	.078	.075	.075	0	0.0	0		0
47-037-0011	1	0682	Nashville	Davidson	1015 TRINITY LA	2004	056	245	245	.084	.076	.074	.073	0	0.0	0		0
47-037-0026	1	0682	Nashville	Davidson	PERCY PRIEST	2004	056	244	245	.096	.091	.087	.085	0	0.0	1		0
47-065-1011	1	0170	Not in a city	Hamilton	SODDY DAISY H.S	2004	047	245	245	.097	.096	.096	.094	0	0.0	0		0
47-065-4003	1	0170	Chattanooga	Hamilton	6200 BONNY OAKS	2004	047	245	245	.118	.101	.091	.087	0	0.0	0		0
47-089-0002	1	1025	Not in a city	Jefferson	1188 LOST CREEK	2004	087	243	245	.109	.100	.094	.093	0	0.0	2		0
47-093-0021	1	0581	Not in a city	Knox	9315 RUTLEDGE P	2004	047	245	245	.115	.092	.091	.089	0	0.0	0		0
47-093-1020	1	0581	Knoxville	Knox	4625 MILDRED DR.	2004	047	237	245	.114	.090	.090	.089	0	0.0	0		0
47-099-0002	1	1025	Not in a city	Lawrence	BUSBY RD	2004	019	245	245	.083	.083	.082	.077	0	0.0	0		0
47-105-0108	1	1025	Loudon	Loudon	130 WEBB DRIVE	2004	087	241	245	.097	.091	.089	.087	0	0.0	0		0
47-121-0104	1	1025	Not in a city	Meigs	8401 HIGHWAY 60	2004	053	242	245	.106	.094	.093	.089	0	0.0	0		0
47-149-0101	1	1025	Not in a city	Rutherford	EAGLEVILLE PUCK	2004	019	245	245	.098	.079	.078	.078	0	0.0	0		0
47-155-0101	1	0745	Not in a city	Sevier	GREAT SMOKY MOU	2004	047	229	245	.097	.088	.087	.085	0	0.0	5		0
47-155-0102	1	0745	Not in a city	Sevier	CLINGSMANS DOME	2004	019	183	245	.089	.087	.084	.083	0	0.0	1		0
47-157-0021	1	0673	Memphis	Shelby	1330 FRAYSER BL	2004	087	244	245	.095	.086	.081	.081	0	0.0	1		0
47-157-1004	1	0673	Not in a city	Shelby	6855 MUDVILLE R	2004	087	245	245	.095	.093	.089	.086	0	0.0	0		0
47-163-2002	1	1025	Not in a city	Sullivan	HILL ROAD	2004	053	245	245	.101	.089	.089	.087	0	0.0	0		0
47-163-2003	1	1025	Kingsport	Sullivan	KETRON MIDDLE S	2004	053	243	245	.087	.085	.083	.081	0	0.0	0		0
47-165-0007	1	1025	Not in a city	Sumner	ROCKLAND RECREA	2004	087	245	245	.095	.093	.092	.088	0	0.0	0		0
47-165-0101	1	1025	Not in a city	Sumner	COTTONTOWN WRIG	2004	047	241	245	.104	.099	.093	.091	0	0.0	0		0
47-187-0106	1	1025	Fairview	Williamson	FAIRVIEW MIDDLE	2004	047	233	245	.081	.081	.079	.079	0	0.0	3		0
47-189-0103	1	1025	Lebanon	Wilson	CEDARS OF LEBAN	2004	053	238	245	.098	.089	.083	.082	0	0.0	3		0

Note: The * indicates that the mean does not satisfy summary criteria.

TENNESSEE AMBIENT AIR QUALITY STANDARDS for Total Suspended Particulates (TSP), PM10, Sulfur Dioxide, Carbon Monoxide, Ozone and Nitrogen Dioxide.

All values are maximum concentrations not to be exceeded more than once per year. Parts per billion (PPB) and parts per million (PPM) by volume values are approximate only. All concentrations relate to air standard conditions of 25 degrees centigrade temperature and 760 millimeters mercury pressure.

ug/m^3 - Micrograms per cubic meter
AAM - Annual arithmetic mean

Contaminants	Primary Standard Concentration		Averaging Interval	Secondary Standard Concentration		Averaging Interval
	ug/m^3	ppm by vol.		ug/m^3	ppm by vol.	
TSP				150		24 hr.
PM10	150		24 hr.			
SO_2	365		24 hr.	1,300	(0.5)	3 HR.
CO		9.0	8 hr.		35	1 hr.
Ozone		125 **(ppb)**	1hr.			
NO_2		0.05	AAM			
Lead	1.5		Calendar Quarter	1.5		Canlendar Quarter

In July 1997, EPA promulgated the National Ambient Air Quality Standards for Fine Particles (PM-2.5). The annual standard is a level of 15 micrograms per cubic meter, based on the 3-year average of annual mean PM2.5 concentrations. The 24-hour standard is a level of 65 micrograms per cubic meter, based on the 3-year average of the 98th percentile of 24-hour concentrations.

Metro Public Works
Attn: Mr. Billy Davis
720 South Fifth Street
Nashville, Tennessee 37206

Metro Nashville Public Works Dept.
Attn: Ms. Anita McCaig
730 Second Avenue
Nashville, Tennessee 37201

Smyrna Parks and Recreation Department
Attn: Mr. Mike Moss
315 South Lowery Street
Smyrna, Tennessee 37167

Middle Tennessee Electric Membership
Attn: Mr. Joe Mankin
555 New Salem Road
Murfreesboro, Tennessee 37129

Councilwoman Vivian Wilhoite
1029 Flintlock Court
Nashville, Tennessee 37217

Metro Police Department
Hermitage Sector
Attn: Sgt. Todd Leach
3701 James Kaye Lane
Hermitage, Tennessee 37976

Long Hunter State Park
Attn: Ranger Matt Blakeney
2910 Hobson Pike
Hermitage, Tennessee 37076

Tennessee Wildlife Resources Agency
Attn: Mr. Brian James
TWRA Region II Hqtrs.
P.O. Box 41489
Nashville, Tennessee 37204

Elm Hill Marina
Attn: Mr. Jim Short
3361 Bell Road
Nashville, Tennessee 37214

County Mayor Robert Dedman
228 East Main Street
Lebanon, Tennessee 37087

Cumberland River Compact
Attn: Ms. Margo Farnsworth
5301 Minnis Road
Springfield, Tennessee 37172

Tennessee Wildlife Federation
Attn: Mr. Chad Whittenburg
300 Orlando Avenue
Nashville, Tennessee 37209

Mr. Tim O'Connell
Old Hickory Lake
Resource Managers Office
No 5 Power Plant Road
Hendersonville, Tennessee 37075

Mr. Jim Schroeder
1730 Wiltshire Drive
Murfreesboro, Tennessee 37129

Four Corners Marina
Attn: Mr. Jim Fisher
4027 Lavergne-Couchville Pike
Antioch, Tennessee 37013

Fate Sanders Marina
Attn Mr. Roland Hopkins
PO Box 125
Smyrna, Tennessee 37167

Nashville Shores
Attn: Mr. Martin Strobel
4001 Bell Road
Hermitage, Tennessee 37076

Hamilton Creek
Attn: Rusty Clanton
2901 Bell Road
Nashville, Tennessee 37214

Youth Incorporated
Attn: Ms Sue Ownby
Suite 209
Prof. Plaza Blvd
Madison, Tennessee 37115

Stones River Hunter Education Center
Attn: Mr. Danny Montgomery
2618 Hobson Pike
Antioch, Tennessee 37013

Lose and Associates
Attn: Mr. Lee Davidson
Suite 200
1314 5th Ave North
Nashville, Tennessee 37205

Metro Parks
Attn: Mr. John Lavender
Centennial Park Office
222 25th Ave North
Nashville, Tennessee 37201

Metro Park Police
Attn: Lt. Copeland
Centennial Park Office
222 25th Ave North
Nashville, Tennessee 37201

TWRA
Attn: Mr. Steve Patrick
TWRA Region II
PO Box 40747
Nashville, Tennessee 37204

TWRA
Attn: Mr. Ed Carter
TWRA Region II
PO Box 40747
Nashville, Tennessee 37204

TWRA
Attn: Mr. Tim Churchill
TWRA Region II
PO Box 40747
Nashville, Tennessee 37204

TWRA
Attn: Mr. Todd St. John
TWRA Region II
PO Box 41489
Nashville, Tennessee 37204

Long Hunter State Park
Attn: Mr. Thurman Mullins
2910 Hobson Pike
Hermitage, Tennessee 37076

MDHA
Attn: Mr. Jim Thiltgen
701 S. 6th St
Nashville, Tennessee 37202

YMCA
Attn: Mr. Mark Weller
3088 Smith Springs Road
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LaVergne Parks
Attn: Robin Grubb
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2970 Hobson Pike
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Cumberland Valley Girl Scouts
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4522 Granny White Pike
Nashville, Tennessee 37204

Metro Office of Emergency Management
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2060 15th Avenue South
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~~5008 Brewer Court~~
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1455 North 51st Ave
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Environmental Monitoring Solutions
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Nashville, Tennesseee 37209

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Nashville, TN 37210

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Environmental Assessment Review Responses

APPENDIX 2

Species of Concern

SCIENTIFIC NAME	COMMON NAME	FED LIST	STATE LIST
PLANTS			
Acmella oppositifolia	Creeping spot-flower	S	
Alluim stellatum	Glade onion		E
Ammoselinum popei	Pope's sand-parsley		T
Amsonia tabernaemontana var. *gattinger*	Limestone blue star		S
Anemone caroliniana	Carolina anemone		E
Apios priceana	Price's potato-bean	LT	E
Arabis glabra	Tower-mustard		T
Arabis hirsuta	Western hairy rockcress		T
Arabis perstellata	Braun's rockcress	LE	E
Arabis shortii	Short's rockcress		S
Arenaria fontinalis	Water stitchwort		T
Aster praealtus	Willow aster		E
Astragalus bibullatus	Pyne's ground-plum	LE	E
Astragalus tennesseensis	Tennessee milk-vetch	S	
Carex davisii	Davis' sedge		S
Carex hirtifolia	Pubescent sedge		S
Crataegus harbisonii	Harbison's hawthorn		E
Dalea candida	White prairie-clover	S	
Dalea foliosa	Leafy prairie-clover	LE	E
Dalea purpura	Purple prairie-clover	E	
Echinacea simulata	Wavy-leaf purple coneflower		T
Echinacea tennesseensis	Tennessee coneflower	LE	E
Eleocharis equisetoides	Horse-tail spike-rush		E
Elymus svensonii	Svenson's wild-rye	E	
Erysimum capitatum	Western wallflower		E
Evolvulus nuttallianus	Evolvulus		S
Fimbristylis puberula	Hairy fimbristylis		T
Helianthus eggertii	Eggert's sunflower	LT	T
Hydrastis canadensis	Goldenseal		S-CE
Juglans cinerea	Butternut		T
Leavenworthia exigua var. *exugua*	Glade-cress		S
Lesquerella densipila	Duck river bladderpod	T	
Lesquerella globosa	Short's bladderpod		E
Lesquerella perforata	Spring creek bladderpod	LE	E
Lesquerella stonensis	Stones river bladderpod		E
Liatris cylindracea	Slender blazing-star	T	
Lilium canadense	Canada lily	T	
Lilium michiganense	Michigan lily		T
Lonicera flava	Yellow honeysuckle		T
Lonicera prolifera	Grape honeysuckle		E-P
Mirabilis albida	Pale umbrella-wort		T

SCIENTIFIC NAME	COMMON NAME	FED LIST	STATE LIST
PLANTS (con't.)			
Neviusia alabamensis	Alabama snow-wreath	T	
Oenothera macrocarpa	Missouri primrose	T	
Onosmodium molle ssp. *subsetosum*	Smooth false gromwell	E	
Panax quinquefolius	American ginseng	S-CE	
Perideridia americana	Thicket parsley	E	
Phlox bifida ssp. *stellaria*	Glade cleft phlox	T	
Polygala boykinii	Boykin's milkwort	S	
Polytaenia nuttallii	Prairie parsley	T	
Populus grandidentata	Large-tooth aspen	S	
Ranunculus longirostris	Eastern white water-crowfoot	E	
Sagittaria platyphylla	Ovate-leaved arrowhead	S	
Schoenolirion croceum	Yellow sunnybell	T	
Scleria verticillata	Low nutbush	S	
Silphium pinnatifidum	Southern prairie-dock	T	
Talinum calcaricum	Limestone fame-flower	S	
Trifolium calcaricum	Running glade clover	E	
Veronica catenata	Sessile water-speedwell	E	
Vitis rupestris	Sand grape	E	
Zanthoxylum americanum	Northern prickly-ash	S	
INVERTEBRATES – MOLLUSKS			
Epioblasma brevidens	Cumberlandian combshell	LE	E
Epioblasma florentina florentina	Yellow-blossom	LE	E
Epioblasma florentina walkeri	Tan riffleshell	LE	E
Lampsilis abrupta	Pick mucket	LE	E
Lithasia geniculata	Ornate rocksnail		
Obovaria retusa	Ring pink	LE	E
INVERTEBRATES - CRUSTACEANS			
Orconectes shoupi	Nashville crayfish	LE	E
VERTEBRATES – BIRDS			
Accipiter cooperii	Cooper's hawk	D	
Actitis macularia	Spotted sandpiper		
Ammodramus savannarum	Grasshopper sparrow	D	
Buteo lineatus	Red-shouldered hawk		
Chondestes grammacus	Lark sparrow	T	
Falco peregrinus	Peregrine falcon	(PS:LE)	E
Ixobrychus exilis	Least bittern	D	

SCIENTIFIC NAME	COMMON NAME	FED LIST	STATE LIST
BIRDS (con't)			
Nyctanassa violacea	Yellow-crowned night-heron		
Nycticorax nycticorax	Black-crowned night-heron		
Thryomanes bewickii	Bewick's wren	E	
Tyto alba	Common barn-owl	D	
VERTEBRATES – MAMMALS			
Lutra canadensis	Northern river otter	T	
Myotis grisescens	Gray bat	LE	E
Neotoma magister	Eastern woodrat	D	
Zapus hudsonius	Meadow jumping mouse	(PS)	D
VERTEBRATES – REPTILES			
Macroclemys temminckii	Alligator snapping turtle	D	
Ophisaurus attenuatus longicaudus	Eastern slender glass lizard	D	
VERTEBRATES – AMPHIBIANS			
Cryptobranchus_ alleganiensis	Hellbender	D	
Gyrinophilus palleucus	Tennessee cave Salamander	T	
VERTEBRATES – FISH			
Acipenser fulvescens	Lake sturgeon	E	
Cycleptus elongatus	Blue sucker	T	
Etheostoma cinereum	Ashy darter	T	
Etheostoma luteovinctum	Redband darter	D	
Etheostoma microlepidum	Finescale darter	D	
Etheostoma olivaceum	Sooty darter	D	
Etheostoma tippecanoe	Tippecanoe darter	D	
Lagochila lacera	Harelip sucker	D	
Notropis rupestris	Bedrock shiner	D	
Percina phoxocephala	Slenderhead darter	D	
Typhlichthys subterraneus	Southern cavefish	D	

Above information obtained from the Division of Natural Heritage, Tennessee Department of Environment and Conservation websites:

Tennessee Natural Heritage Program, Rare Plant List 2004,
www.state.tn.us/environment/nh/plant_list.pdf

A Guide to the Rare Animals of Tennessee, May 2004,
www.state.tn.us/environment/nh/animal_list_2004.pdf

Rare Vascular Plant List, www.state.tn.us/environment/nh/tnplants.php?type=vasc

STATE STATUS CODES -

E - Endangered Species
T - Threatened Species
S - Special Concern Species
PE - Proposed Endangered Species
D - "Deemed in Need of Management"

STATE STATUS MODIFIERS
following State Status

P - Possibly Extirpated
CE – Commercially Exploited

FEDERAL STATUS CODES -

LE - Listed Endangered
E/SA - Endangered by Similarity of Appearance
LT - Listed Threatened
T/SA - Threatened by Similarity of Appearance
PE - Proposed Endangered
PT - Proposed Threatened
C - Candidate Species
(PS) - Partial Status (based on taxonomy)
(PS:status) - Partial Status (based on political boundaries)
(status,XN) - Non-essential experimental population in portion range