

MEMORANDUM FOR Chief, Operations Division, Nashville District

SUBJECT: J. Percy Priest Reservoir Master Plan Supplement for land and surface water management classifications to conform with guidance set forth in ER/EP 1130-2-550 (30 January 13).

1. REFERENCES:

- a. Master Plan Update, J. Percy Priest Reservoir, Tennessee, 2007.
- b. Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) to the proposed Master Plan Update of J. Percy Priest Lake, signed January 2008.
- c. ER/EP 1130-2-550, Recreation Operations and Maintenance Policies, (Change 5, dated 30 January 13).
- d. ER 1130-2-540, Environmental Stewardship Operations and Maintenance Policies, dated 15 Nov 96.
- e. Memorandum, CELRN-OP-R, 19 Feb 2008, Subject: Appointment of Authorized Representative of the District Engineer for Approval of Master Plans, Supplements and Updates, and Operational Management Plans and Updates.

2. BACKGROUND.

J. Percy Priest Reservoir is located in northern middle Tennessee on the Stones River, a tributary of the Cumberland River. The land managed by the Corps of Engineers around J. Percy Priest is about 19,460 acres, and at full recreation pool, the lake covers 14,200 surface acres of water and has 213 mile of shoreline. The lake offers a variety of recreational opportunities including fishing, swimming, camping, boating and hunting. The recreation areas vary from highly developed commercial operations to unimproved camping areas in response to the diverse demands of the public.

Stewarts Ferry Reservoir was authorized under the authority of the Rivers and Harbors Act of 1946 and Public Law 85-496 authorized the name change to J. Percy Priest in honor of the late Congressman from Tennessee. Land acquisition at J. Percy Priest was accomplished under the 1962 Army/Interior Joint Acquisition Policy (300 foot policy), resulting in significant perimeter lands in public ownership. Containing approximately 19,460 acres, these lands enhance the natural appearance of the lake and prevent encroachments on the shoreline. These land areas are especially critical at J. Percy Priest since the lake is set in the midst of a highly developed, rapidly growing urban area. Most visitors to the lake come from nearby Nashville and the surrounding counties of Rutherford, Wilson, and Williamson. The lake is

SUBJECT: J. Percy Priest Reservoir Master Plan Supplement for land and surface water management classifications to conform with guidance set forth in ER/EP 1130-2-550 (30 January 13).

easily accessible by Interstates 40, 24, and 65, as well as State Route 840, to several major cities such as Nashville, Murfreesboro, Smyrna, La Vergne, and Mt. Juliet and draws visitors from outside as well as within the state. In 2012, nearly 6 million visits were recorded at J. Percy Priest Lake.

J. Percy Priest was authorized for the purposes of recreation, flood control and hydroelectric power production. Additional demands placed on project resources, such as providing municipal water supplies to Smyrna, La Vergne, and Murfreesboro, also place a heavy demand on water resources of the project and further the importance of wise stewardship of project resources. Some public lands at J. Percy Priest have been outgranted to the Tennessee Wildlife Resources Agency (TWRA) to promote wildlife and fisheries management objectives. Some public lands have also been made available to the Tennessee Department of Environment and Conservation, as well as the U.S. Fish and Wildlife Service to protect unique and rare cedar glade habitat and to promote biological diversity.

The original Master Plan for J. Percy Priest Lake was approved in 1966. Since that time, public use patterns have developed differently than anticipated, leaving some sites underused and others used beyond capacity. The Master Plan was updated in 1986, and redefined some of the original objectives of the project, while expounding on others to describe the impacts overuse was creating at some of the more heavily used recreation areas. The most recent Master Plan Update was completed in 2007 and reflected the conditions and changing use and management of government lands at the time.

Chapter 3 of the Engineering Regulation (ER) and Engineering Pamphlet (EP) 1130-2-550 provides specific guidance for Master Plans (MP) and Operational Management Plans (OMP), including guidance on management classifications for lands and water surfaces. The J. Percy Priest Master Plan, though last updated in 2007, does not conform to the guidance in the ER/EP 1130-2-550, Change 5 (30 January 2013). A supplement to the J. Percy Priest Master Plan is needed to align the management procedures in place at the lake project with the policy set forth in the ER/EP 1130-2-550. This will not change the on-the-ground land management practices, but rather sets up management strategies to describe how they parallel national policy.

3. PROPOSAL.

3a. LAND CLASSIFICATIONS

Lands are classified for the primary use for which project lands are managed. A map of the classification areas is included as part of this supplement.

SUBJECT: J. Percy Priest Reservoir Master Plan Supplement for land and surface water management classifications to conform with guidance set forth in ER/EP 1130-2-550 (30 January 13).

3a(1). Project Operations – Land in this category include those lands required for the dam, spillway, switchyard, offices, maintenance facilities, and other areas used solely for the operation of the project.

- J. Percy Priest Dam and Shop Area (Site 99) – The J. Percy Priest Project Operations Area has seen a number of changes, including the construction of a field office for EC-H Water Quality lab in 1996. In addition, Building 3 within the Operations Area was renovated to accommodate the Nashville District Regulatory Branch offices which moved to J. Percy Priest in 2001. The J. Percy Priest Visitor Center was renovated to provide needed improvements for access to information about the project, as well as Americans with Disabilities Act (ADA) improvements to access the building. A comprehensive review of project security was performed in 2002 under the Risk Assessment Methodology for Dams by the Infrastructure Security Assessment Team to assess project vulnerabilities along with needed security improvements. Improvements such as guardrail, fencing, lighting, remotely operated camera and other essential items were installed.

3a(2). High Density Recreation – Lands developed for intensive recreational activities for the visiting public. These areas include day use areas, campgrounds, marinas, and quasi-public developments such as summer camps. These lands are developed to provide for the recreational activities of the visiting public. No agricultural uses are permitted on these lands, with the exception of a portion of the Tailwater Left Bank Area where the terrain is adaptable for maintenance of open space and/or scenic values. Factors such as road access, natural resources, recreational facility design and management practices make these lands conducive to accommodating major use by the visiting public. Lands in this classification include areas for concessions and quasi-public and group use development. Areas classified as high density recreation also serve to provide important aesthetic and aquatic buffers and help to insulate the project from adjacent private development.

All areas classified as high density recreation area described in Chapter 8 (pages 8-1 to 8-14) of the 2007 Master Plan Update for J. Percy Priest.

- Seven Points Recreation Area (Site 100)
- Long Hunter State Park (Site 101)
- Visitor Center Area (Site 102)
- Hamilton Creek Park (Site 103)
- Cook Recreation Area (Site 104)
- Anderson Road Recreation Area (Site 105)
- Smith Springs Recreation Area (Site 107)
- Four Corners Public Use Area (Site 109)

SUBJECT: J. Percy Priest Reservoir Master Plan Supplement for land and surface water management classifications to conform with guidance set forth in ER/EP 1130-2-550 (30 January 13).

- Poole Knobs Recreation Area (Site 113)
- Fate Sanders Marina (Site 116)
- Jefferson Springs Public Use Area (Site 117)
- East Fork Public Use Area (Site 121)
- Gregory Mill Dam Public Use Area (Site 123)
- Elm Hill Marina (Site 126)
- Tailwater Left Bank Access Area (Site 201)
- Tailwater Right Bank Access Area (Site 202)
- J. Percy Priest Lake Overlook (Site 203)
- Vivrett Creek Launching Area (Site 206)
- Hurricane Creek Public Use Area (Site 211)
- Stewart Creek Public Use Area (Site 215)
- Lamar Hill Public Use Area (Site 218)
- West Fork Public Use Area (Site 219)
- Mona Public Use Area (Site 222)
- Nices Mill Public Use Area (Site 224)
- Nashville Shores Water Park, Marina, and Yacht Club (Site 302)
- YMCA Camp Widjiwagan (Site 401) (description not available in the 2007 Master Plan Update): YMCA Camp Widjiwagan, Joe C. Davis Outdoor Center, is a large and heavily visited children's camp on J. Percy Priest Lake. This entire site is leased to a concessionaire, Metropolitan Government of Davidson County Department of Housing Agency (MDHA). MDHA has in turn subleased the area to YMCA of Nashville and Middle TN, who has developed an extensive water-oriented summer and overnight camp facility. The water front location is an important tool to promote water-based activities, boating and water safety. Facilities include a boathouse, cabins, swimming beach with water related activities, equine facilities, canoeing/kayaking, dining lodge, and zip line. The concessionaire has plans to build additional camping facilities, Yurt Village, to meet the current demand in the local area.

3a(3). Environmentally Sensitive Areas – Lands where scientific, ecological, cultural, or aesthetic features have been identified. These areas are managed to ensure they are not adversely impacted. Limited or no development of public use is allowed on these lands.

- Suggs Creek (Future SNHA) (Site 603): The Suggs Creek area is one of the larger areas of land set aside on J. Percy Priest Lake. It consists of mature hardwoods which provide excellent wildlife habitat and diversity. Due to the size and location of the land it creates an important buffer zone aiding in water quality and erosion control. This land has been considered for designation as a State Natural Heritage Area, but at the time of the supplement, has not yet been designated as such.

SUBJECT: J. Percy Priest Reservoir Master Plan Supplement for land and surface water management classifications to conform with guidance set forth in ER/EP 1130-2-550 (30 January 13).

- Elsie Quarterman Cedar Glade (Site 601): Class II Natural-Scientific State Natural Heritage Area (Site 601): The Elsie Quarterman Cedar Glade is a 185-acre natural area in Rutherford County. The natural area is designated by the Tennessee Department of Environmental Conservation (TDEC) State Natural Heritage program. The natural area is significant because it protects a globally rare cedar glade and is a recovery site for the federally endangered Tennessee coneflower (*Echinacea tennesseensis*).

A very large cedar glade characterized by limestone outcropping and extremely shallow soil is a prominent feature here. A small number of barrens occur intermittently where deeper soils support perennial grasses like little bluestem and side oats grama. A cedar-hardwood forest can be seen on the south part of the natural area. Some glade plants or endemics associated with this glade include limestone fame-flower (*Talinum calcaricum*), Tennessee milk-vetch (*Astragalus tennesseensis*) and glade onion (*Allium stellatum*). Seeds from a population of Tennessee coneflower from private land were planted here in 1989 to aid in the recovery of this very rare species. These seeds were taken from an unprotected population of Tennessee coneflower. Major colonies of the four other populations are protected in state natural areas.¹

- Patton Cave and other caves around the lake (Site 605): Caves, sinkholes, and other cavernous features located on public lands in Tennessee are considered sensitive species habitat, especially for the federally listed Gray Bat. Several state agencies worked with the US Fish & Wildlife Service and The Nature Conservancy to protect caves as habitat for bats and prevent the spread of White-nose Syndrome (WNS) in Tennessee's bat population.

White-nose Syndrome is named for a white fungus that appears on the faces, ears, wings and feet of hibernating bats. Scientists are trying to determine the cause of WNS and its effects. Once a colony is affected, the fungus spreads rapidly and kills most of the bats in the hibernacula. The disease causes bats to use up their fat reserves rapidly during hibernation. This causes the bats to fly out of caves during the winter in a desperate attempt to find food, but since the insects they eat are also seasonally dormant, the bats soon die of starvation.

Scientists believe WNS is spread bat-to-bat as they cluster in caves and mines, and it may be unknowingly transferred from one cave to another on the footwear, clothing and gear of humans visiting caves. Infected caves and mines may not show obvious signs of

¹ Information is from the Tennessee Department of Environment and Conservation, Division of Natural Areas, State Natural Areas Program

SUBJECT: J. Percy Priest Reservoir Master Plan Supplement for land and surface water management classifications to conform with guidance set forth in ER/EP 1130-2-550 (30 January 13).

its presence. Caves and sinkholes on J. Percy Priest Lake are closed for recreational use in an effort to protect sensitive species habitat from disease and disturbance.

- Fate Sanders Barrens Class II Natural-Scientific State Natural Area (Site 602): Fate Sanders Barrens is a 230-acre natural area in Rutherford County. The natural area is designated by the Tennessee Department of Environmental Conservation (TDEC) State Natural Heritage program. The natural area is significant because it supports a large open pristine barrens community comprised of perennial grasses and herbaceous plants. Little bluestem is widespread and is the dominant barrens plant here. Eastern red cedar is scattered throughout the barrens and is also a prominent feature. The grassland must periodically undergo prescribed burning to maintain the open condition. Fire keeps cedars and other woody plants from encroaching.

The deep soil that supports the barrens is also habitat for the federally endangered Tennessee coneflower (*Echinacea tennesseensis*). Fate Sanders serves as an introduction site for Tennessee coneflower. The coneflower at Fate Sanders is an introduction from a nearby population from private land. Its introduction is a means of protecting the only population of five known populations that occurs exclusively on private land. Colonies from the remaining four populations have been protected in state natural areas.

Other noteworthy plants at Fate Sanders include ladies tresses (*Spiranthes lacera* var. *gracilis*), limestone fame-flower (*Talinum calcaricum*), Tennessee milk-vetch (*Astragalus tennesseensis*), cleft phlox (*Phlox bifida* ssp. *stellaria*), and limestone blue star (*Amsonia tabernaemontana* var. *gattingeri*). Cedar glades occur intermittently where there is very shallow soil and limestone outcropping. A cedar - hardwood forest occupies the slopes and dissected hilly areas on the northwestern third of Fate Sanders Barrens².

- Bladderpod Monitoring Areas (Site 606): The south end of the lake contains critical habitat for the Stones River Bladderpod (*Paysonia stonensis*). A Candidate Conservation Agreement (CCA) between USACE, TWRA, US Fish & Wildlife Service (USFWS), and the Tennessee Department of Environment and Conservation (TDEC) is in place for the Stones River bladderpod monitoring areas. The purpose of the CCA is to provide long-term protection of Stones River bladderpod by ensuring that habitats are managed in a manner that will sustain viable populations of this species.

Stones River bladderpod is not federally listed and was removed from the list of candidate species for protection under the Endangered Species Act in 1999. The state

² Information is from the Tennessee Department of Environment and Conservation, Division of Natural Areas, State Natural Areas Program

SUBJECT: J. Percy Priest Reservoir Master Plan Supplement for land and surface water management classifications to conform with guidance set forth in ER/EP 1130-2-550 (30 January 13).

of Tennessee has listed the Stones River bladderpod as Endangered and its state Ranking is S1 (extremely Rare and critically imperiled).

The Stones River bladderpod is a disturbance-dependent winter annual that grows vigorously in cultivated fields. Stones River Bladderpod populations in crop fields can be greatly affected, depending on the type of crops planted.

Field preparation and planting for annual crop production that requires soil disturbance will occur only between May 15 and July 15. Other active management practices that do not require soil disturbance, such as crop harvesting, will be conducted either before September 1 or after October 15. Herbicide application will only occur between May 15 and August 15. Pre-emergent herbicides should not be applied. Only herbicides that are environmentally safe shall be used, and only in accordance with the manufacturer's instructions. Management practices at the Stones River bladderpod monitoring areas includes:

- Soil Disturbance: Extensive soil disturbance, to a depth of 2-4 inches, will occur, at a minimum, once every 5 years. In years where extensive soil disturbance does not occur, a no-till practice may be applied, or the field may be allowed to lie fallow.
- Plant Cover: Soybeans and corn, are recommended annual crops to be planted in Stones River bladderpod fields. Planting of winter wheat, oats and other winter crops shall not be allowed. Heavy cover crops, such as fescue, and invasive exotic species shall not be planted in Stones River bladderpod fields. However, native species may be used in wildlife plots or warm season grass cover may be established, so long as the above conditions are met. Warm season grass plantings should not include Switchgrass (*Panicum virgatum*) due to its potential to establish dense stands that exclude other species from becoming established. A recommended warm season grass planting would include little blue stem (*Schizachyrium scoparium*), side oats gramma (*Bouteloua curtipendula*), and eastern gamma grass (*Tripsacum dactyloides*).
- Grazing of domestic animals shall not be permitted in Stones River bladderpod fields.

3a(4). Multiple Resource Management Lands – This classification allows for the designation of a predominate management type, with the understanding that other compatible uses within the Multiple Resource Management classification may occur on these lands. The classification map for J. Percy Priest (an attachment to this supplement) reflects the predominate sub-classification, rather than just Multiple Resource Management.

3a(4i). Low Density Recreation – land areas with minimal development or infrastructure that support passive public recreational use.

SUBJECT: J. Percy Priest Reservoir Master Plan Supplement for land and surface water management classifications to conform with guidance set forth in ER/EP 1130-2-550 (30 January 13).

- Shoreline adjacent to Anderson Road Recreation Area (Site 505): This area is classified with a primary purpose of Low Density Recreation. It is primarily undeveloped, but is frequently used as a natural walking area. The area's proximity to local neighborhoods, as well as the Anderson Road and Smith Springs Recreation Areas makes this area very popular for adjacent landowners to walk their dogs and easily access shoreline for bank fishing. Other secondary management practices include vegetative management and wildlife management.
- East Fork Warm Season Grasses Scenic Area (Site 521): This area is located on the south end of the lake near TN 840. The 18 mile long Twin Forks Horse Trail runs through this area and provides an area for low density recreation for the public to enjoy the trail by horse or by foot. This area is often accessed via the adjacent East Fork Recreation Area. Secondary uses of this area are vegetative management and wildlife management. This is a large tract of land with many species of native grasses, and is unique in that it is an intact piece of land that provides wildlife habitat and diversity.

3a(4ii) Wildlife Management Lands – lands designated for stewardship of fish or wildlife resources.

- Tennessee Wildlife Resources Agency – Wildlife Management Area Units I-II: The Tennessee Wildlife Resources Agency (TWRA) has a license for managing much of the lands surrounding J. Percy Priest Lake as Wildlife Management Areas (WMAs), approximately 10,896 acres. TWRA promotes public hunting on lands licensed from the Corps of Engineers, and has developed project lands to provide recreational hunting, hunter education, and other outdoor recreational aims. Wildlife management is the predominant subclassification for these lands, but other secondary uses may include low density recreation and vegetative management.

TWRA manages the areas in three areas: Unit I, Unit II, and the Stones River Hunter Education Center. Descriptions for these are found in the 2007 Master Plan Revision for J. Percy Priest Lake on pages 6-1 and 6-2.

It is suggested to review current hunting regulations relating to Wildlife Management Areas on J. Percy Priest and any Tennessee wildlife management area before planning to hunt.

3a(4iii). Vegetative Management Lands – Areas designated for the stewardship of native vegetative cover. No areas of J. Percy Priest are designated as Vegetative Management for their primary management purpose. However, vegetative management is a prominent secondary or tertiary management objective for these multiple resource management lands.

SUBJECT: J. Percy Priest Reservoir Master Plan Supplement for land and surface water management classifications to conform with guidance set forth in ER/EP 1130-2-550 (30 January 13).

The project lands managed with the primary sub-classification of Wildlife Management depend heavily on sound vegetative management practices to sustain healthy wildlife habitat conditions.

3a(4iv). Future of Inactive Recreation Areas – Areas with site characteristics compatible with potential future recreational development or recreational areas that are closed. Until there is opportunity to develop or reopen these areas, they will be managed for low density recreation and vegetative management.

- Cook Campground (Site 104, inactive): The campground portion of Cook Recreation Area was closed in Recreation Excellence at Army Lakes (REAL) program in 2004. The area still has infrastructure for a campground, but would need to have extensive updates in order to function as a campground again. A more feasible potential use for reopening this area would be as an expanded day use area with additional parking, beach area, and picnic facilities. The existing Cook Day Use Area (adjacent to this closed campgrounds) is one of the busiest areas on the lake, and is very popular because of the swim beach, so expanding use of this area would encourage continued day use recreation.

Consideration for the expansion of Cook Recreation Area would additional areas within Day Use Fee Program. Cook Campground would be redesigned to accommodate additional day use facilities, and entire area would become day use fee area. Currently this area is managed for low density recreation, frequently by visitors enjoying walks in nature or dog walking. Vegetative management also occurs in the closed Cook Campground.

A full description of the Cook Recreation Area is found on page 8-3 of the 2007 Master Plan Update for J. Percy Priest.

- Fall Creek Campground (Site 120, inactive): This campground was closed in 1986. Currently the only open facilities in this area are a boat ramp and parking area, but the site has potential expansion possibilities because of its proximity to Tennessee 840 and the Nashville Motor Speedway. Facilities associated with the closed campground would need to be completely replaced. The closed area is currently managed for vegetative management. A full description of the area is found on page 8-7 of the 2007 Master Plan Update for J. Percy Priest.

3b. WATER SURFACE CLASSIFICATIONS

SUBJECT: J. Percy Priest Reservoir Master Plan Supplement for land and surface water management classifications to conform with guidance set forth in ER/EP 1130-2-550 (30 January 13).

J. Percy Priest Lake administers a baseline surface water zoning program, primarily for the safety of the recreating public.

- Restricted: Water areas restricted for project operations, safety, and security purposes. On J. Percy Priest, areas within the buoy line surrounding all swim beaches is prohibited for all motorized vessels (with the exception of emergency vessels).
- Designated No-Wake: Water areas designated as wakeless to protect environmentally sensitive shoreline areas, recreational water access areas from disturbance, and heavily recreated areas for public safety. On J. Percy Priest, Designated No-Wake areas can be found and marked by buoys near all marinas and many of the launching ramps. These areas are designated for purposes of public safety.
- Open Recreation: Waters available for year round water based recreational use. The surface waters of J. Percy Priest not designated as restricted, no-wake, or fish and wildlife sanctuary are available for open recreation.

3c. EASEMENT

Easement Classification is shown for areas that USACE holds an easement interest, but not fee title. These easements on J. Percy Priest were acquired for the specific purpose of inundation for a function of Corps missions, such as flood damage reduction by holding a higher volume of water during high rain situations. All easements on J. Percy Priest Lake are classified as flowage easement.

4. NEPA. PM-P is currently reviewing the supplement as a categorical exclusion in accordance with ER 200-2-2. The public and action agencies are being advised of the proposed supplement through a 15 day comment period. Comments and agency coordination will be summarized in PM-P's final memorandum.

SUBJECT: J. Percy Priest Reservoir Master Plan Supplement for land and surface water management classifications to conform with guidance set forth in ER/EP 1130-2-550 (30 January 13).

5. RECOMMENDATIONS.

It is recommended that this Supplement be approved as part of the J. Percy Priest Master Plan, designating the described management classifications and bringing the 2007 Master Plan Update into compliance with the ER/EP 1130-2-550.

Attachments:

Map with Proposed Management Classifications

APPROVAL RECOMMENDED:

ANDREAS PATTERSON
Chief, Natural Resources Management
Branch

APPROVED:

DIANE E. PARKS
Chief, Operations Division