Operational Management Plan

Lake Barkley

Appendix M To Park Management

Shoreline Management Plan

US Army Corps of En i ille Di i ®

August 2015

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DIVISION, GREAT LAKES AND OHIO RIVER
CORPS OF ENGINEERS
550 MAIN STREET
CINCINNATI, OH 45202-3222

CELRD-PDO

AUG 24 2015

MEMORANDUM FOR Commander, Nashville District, (CELRN-OP/Parks), P. O. Box 1070, Nashville, TN 37202-1070

SUBJECT: Lake Barkley Shoreline Management Plan Review and Approval

1. References:

a. Memorandum, CELRN-OP, 15 Jun 2015, subject: Lake Barkley Shoreline Management Plan Update

b. ER-1130-2-406, 28 May 1999, subject: Shoreline Management at Civil Works Projects

2. A review of the 2015 draft update to the Lake Barkley Shoreline Management Plan (SMP) has been completed and indicates that the Nashville District has adequately fulfilled the revision/review process as required by Paragraph 5.f and 5.g of ER-1130-2-406.

3. The 2015 updates to the Lake Barkley SMP are hereby approved.

4. The POC for this action is Mr. Jeff DeFosse, CELRD-PDO, (513) 684-3192.

[redacted]

RICHARD G. KAISER
Brigadier General, USA
Commanding

Encls:
1. Draft 2015 update to the Lake Barkley Shoreline Management Plan
2. Memorandum, CELRN-OP, 15 Jun 2015, subject: Lake Barkley Shoreline Management Plan Update

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

IN REPLY REFER TO

15 JUN 2015

CELRN-OP (1130)

MEMORANDUM FOR Commander, U.S. Army Engineer Division, Great Lakes and Ohio River (ATTN: CELRD-PDS-O/Jeff Defosse), 550 Main Street, Cincinnati, Ohio 45202-3222

SUBJECT: Lake Barkley Shoreline Management Plan Update

1. References:

a. ER 1130-2-406, 28 May 1999, subject: Shoreline Management at Civil Works Projects.

b. Memorandum, CELRN-OP, May 29, 2015, subject: Lake Barkley, 2015 Shoreline Management Plan Review and Update (Enclosure).

2. The update of the Lake Barkley Shoreline Management Plan is enclosed for your review and approval. The Plan will be made an appendix to the Lake Barkley Operational Management Plan (OMP).

3. If you have any questions or need further information, please contact Tadd Potter of my Natural Resources Management Branch at (615) 736-7807.

[redacted]

JOHN L. HUDSON, P.E.
LTC, EN
Commanding

29 MAY 2015

CELRN-OP (1130)

MEMORANDUM FOR Commander, Nashville District Corps of Engineers

SUBJECT: Lake Barkley, 2015 Shoreline Management Plan Review and Update

1. Reference ER 1130-2-406 dated 28 MAY 99, Subject: Shoreline Management at Civil Works Projects.

2. The 2015 draft update of the Lake Barkley Shoreline Management Plan (SMP) is enclosed for your review and approval.

3. Three public information workshops were held to review and discuss the draft plan. At total of 97 people attended. The workshops took place on the following dates and locations:

- November 3, 2014 at the Lyon County Courthouse in Eddyville, Kentucky
- November 6, 2014 at the Stewart County Visitor Center in Dover, Tennessee
- November 13, 2014 at the Lake Barkley State Resort Park in Cadiz, Kentucky

4. Information regarding the meetings was publicized on the Lake Barkley internet website and facebook posts. A news release was coordinated with the Public Affairs Office and sent to all the local newspapers. Lake Casts were mailed to all permit holders on Lake Barkley, and invitation letters were sent to County Judges, State and Federal politicians, and local agencies (USFWS and (KDFWR).

5. After the meetings, a 30-day public comment period was established in order to receive additional comments. A total of 88 general questions/comments were submitted. These comments and questions were duly considered in the development of this draft plan.

6. The 2015 review/update of the Lake Barkley SMP proposes few changes. A summary of the more significant changes are included below:

a. Addition prohibiting withdrawing water from Lake Barkley for residential household or agricultural use, as well as irrigation on private property. (Section 20(b), page 18)

b. Deleted marine railways as authorized use of fee property. (Section 20(d), page 18)

c. Clarified the use of concrete for improved access. (Section 20(e), page 19)

d. Added Permit Condition #19 to include possible revocation of all or part of the Shoreline Use Permit/License in cases of damaged or destroyed archaeological sites. (Exhibit A, page 31)

e. Reallocated 0.049 miles of shoreline from Limited Development Mowing Only to Limited Development Docks and Mowing. Reallocated 5.11 miles from Protected to Limited Development Mowing Only.

7. After your review and approval, the plan will be made an appendix to the Lake Barkley Operational Management Plan (OMP). If you need further information, please contact Tadd Potter at (615) 736-7807.

[redacted]

Encl
as

DIANE E. PARKS
Chief, Operations Division

[redacted]

X Concur __Nonconcur

JOHN L. HUDSON, P.E.
LTC, EN
Commanding

U.S. ARMY CORPS OF ENGINEERS
NASHVILLE DISTRICT
LAKE BARKLEY
SHORELINE MANAGEMENT PLAN
APPENDIX TO PART II OF THE
OPERATIONAL MANAGEMENT PLAN

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U.S. ARMY CORPS OF ENGINEERS
NASHVILLE DISTRICT
LAKE BARKLEY SHORELINE MANAGEMENT PLAN
APPENDIX TO PART II OF THE
OPERATIONAL MANAGEMENT PLAN

1. References

a. Section 4, 1944 Flood Control Act, as amended, (16 USC 460d).

b. The Rivers and Harbors Act of 1894, as amended and supplemented (33 USC 1).

c. Section 10, Rivers and Harbors Act of 1899 (33 USC 403).

d. National Historic Preservation Act of 1966 (P.L. 89-665; 80 Stat. 915) as amended (16 U.S.C. 470 et seq.)

e. Archaeological Resources Protection Act of 1979, as amended (PL96-95; 16 U.S.C. 470aa-mm)

f. The National Environmental Policy Act of 1969 (42 U.S.C. 4321, et seq.)

g. The Clean Water Act (33 U.S.C. 1344, et seq.).

h. The Water Resources Development Act of 1986 (P.L. 99-662).

i. ER 1130-2-406, Shoreline Management at Civil Works Projects.

j. Title 36, Chapter III, Part 327, Code of Federal Regulations, "Rules and Regulations Governing Public Use of Water Resource Development Projects Administered by the Chief of Engineers."

k. Executive Order 12088 (13 Oct 78).

l. 33 CFR 320-331, Regulatory Programs of the Corps of Engineers.

m. ER 1130-2-400, Management of Natural Resources and Outdoor Recreation at Civil Works Water Resource Projects.

n. CEORDR 405-2-13, Issuance of Minor Licenses and Permits at Water Resource Projects.

o. Section 6, PL 97-140, as amended by section 1134(d), PL 99-662.

p. Nashville District Guidelines and Policy for the Review of Cut and Fill Proposals, dated 11 December 2002.

q. Old Hickory Lake Shoreline Management Plan, April 2008

r. ER 405-1-12, Real Estate Handbook

s. ER 1130-2-550, Chapter 16-Recreation Development Policy for Outgranted Corps Lands.

t. ER 1130-2-550, Chapter 17-Non-Recreation Outgrant Policy

2. Authority

The authority for the preparation of this document is contained within ER-1130-2-406. This Plan is prepared as an appendix to Part II of the Operational Management Plan for Lake Barkley.

3. Purpose

This Shoreline Management Plan provides policies and guidelines for the effective long-range management of the shoreline resources of Lake Barkley. Lake Barkley is an extremely popular site for a variety of outdoor recreational activities. Recreational demands and development pressures increase each year, yet the total amount of public land and water area remains fixed. Sound management is necessary to provide optimum use of finite project resources for present and future generations.

4. Objectives of the Plan

The objectives of this plan are to balance private shoreline uses with the protection and restoration of the natural environmental conditions of Lake Barkley. In accordance with the provisions of the National Environmental Policy Act of 1969, a primary goal of management of lake resources is to establish and maintain acceptable fish and wildlife habitat, preserve aesthetic qualities and promote the safe and healthful use of the lake and surrounding public lands by the general public.

The extensive residential development of private property adjoining the project has resulted in heavy demand for private exclusive use of the shoreline. In the absence of sound management, substantial portions of the shoreline could be cleared of natural vegetation and become congested with private moorage facilities and other structures. Public lands, which are available to all the people, could be converted to the appearance of private property of adjoining landowners. This plan contains definitive guidance, which

balances private exclusive uses of public resources with providing natural environmental conditions for the use and enjoyment of the general public. The development of this plan has included full consideration of existing permitted private use facilities or privileges and prior commitments made regarding these uses.

5. Description of the Lake

Lake Barkley is a shallow water lake impounding 118.1 miles of the Cumberland River from River Mile 30.6 above its confluence with the Ohio River to Cheatham Dam (River Mile 148.7). At normal summer recreation pool Barkley has 1,004 shoreline miles; 320 of which are adjoined by Government land held in fee ownership. The project has a total of 108,963 acres of land and water, including 51,167 acres of fee and easement land area above the summer pool elevation of 359 feet above mean sea level (MSL references the National Geodetic Vertical Datum of 1929). The irregular shoreline is surrounded by gently sloping to rolling hills with few bluffs and steep banks. Composition of the shoreline is generally mud, clay and gravel with some areas of sand or limestone rock outcroppings. The fee land above summer pool is approximately 60% in forest; primarily second growth oak-hickory complex. The other 40% is in various stages of succession. A conservative land acquisition policy restricted purchase of fee land to the minimum acreage necessary to meet the operational and maintenance requirements of the project. This conservative policy limited acquisition of fee property to a line or series of lines along tangents located at or near the 5-year flood frequency (elevation 367 feet above MSL). In addition, the Corps acquired a flowage easement (right to flood) for lands between elevations 367 feet and 378 feet above MSL. It is in part due to the narrow land ownership and also permit policies prior to 1973, that this Shoreline Management Plan is needed to manage private exclusive use of public lands and to protect the natural resources of these shoreline areas.

6. Present Land Use

There are 29 Corps recreation areas on Lake Barkley, which comprise 1,874 acres. Lake Barkley State Resort Park, located on the Little River embayment, encompasses 1,700 acres of land. The city of Dover, Tennessee operates a 56-acre recreation area and the city of Clarksville, Tennessee, operates two areas that total 37 acres. In addition to the marina at Lake Barkley State Resort Park, there are seven commercial marinas located around the lake that occupy 420 acres. The U.S. Forest Service Land Between the Lakes National Recreational Area occupies the western shore of Lake Barkley from the canal connecting Barkley and Kentucky Lakes to near the city of Dover, Tennessee. The Cross Creeks National Wildlife Refuge Area

operated by the U.S. Fish and Wildlife Service includes 9,892 acres of land and water area on both sides of the lake from Dover to Cumberland City in Tennessee. The Kentucky Department of Fish and Wildlife has a 5,429-acre tract of land and water under lease for wildlife management purposes. The Tennessee Wildlife Resources Agency operates a 3,608-acre wildlife management area on the lake in the Tennessee portion (Barkley Waterfowl Management Area).

7. Residential Development On Adjoining Property

Due to the nature and accessibility of the shoreline, residential development of adjoining private lands surrounding Lake Barkley has continued to increase each year. With nine cities adjoining the lake or tributaries, varying in size from a few hundred in population, like Grand Rivers, to over fifty thousand at Clarksville and approximately 208 subdivisions varying in size from less than 10 lots to others with several hundred lots, pressure for use of the shoreline will continue to increase. New subdivisions are developed each year and consequently, more people are requesting the use of public lands for extending their lawns and constructing boat docks. The protection of the shoreline from overuse and the preservation of the natural beauty of the public lands and water for all our customers is a major goal of this Shoreline Management Plan, the Resource Manager and staff.

8. Existing Access

The shoreline and waters of Lake Barkley are easily accessible to visitors. There are a total of 77 launching ramps with 88 launching lanes plus several old roads providing access to the water. The generally gradual slope of the land and small government ownership provides for pedestrian access almost everywhere for adjacent property owners.

Of the 77 launching ramps, 36 are in Corps of Engineer’s recreation areas or commercial concessions; 26 are managed by other federal agencies; 10 are outgranted to local or state government. The remaining 5 ramps include 3 in private campgrounds and 2 outgranted to private associations.

9. Initial Permit Policy 1966-1973

Prior to formulation of the Shoreline Management Plan in 1973, adjoining private landowners were routinely given permission for use of public lands (mowing, rip rapping, and improved access) and for the placement of floating facilities on the lake (boat docks, floats, boat houses and pontoon boats). Applications for these permits were accepted for all areas of the lake except recreation

areas and other developed areas. In addition, outgrants, licenses, easements and consent to easements have been issued for other work (roadways, pipelines, etc.) on public owned fee lands and flowage easement lands. As time progressed, some of these usages were determined not to be in the best interest of the lake. These existing privileges were grandfathered. Some of these grandfathered privileges exist today and were allowed to stay due to previous commitments by the Government.

10. Development Of The Lakeshore Management Plan, 1973-1991

Due to increasing private exclusive use permits issued to private landowners and developers, a portion of the shoreline was taking on the appearance of being privately owned land. A need for stricter controls over the use of public lands and waters became evident. It was apparent that the continued development of lawns on public lands and private docks along the shoreline would be detrimental to the aesthetic and recreational environment of the lake. This gave the appearance of private exclusive use of sections of the shoreline by a limited number of individuals. Resource management personnel at Lake Barkley and from the Nashville District Office conducted a lakeshore management study. Development of the initial Shoreline Management Plan began in early 1972.

In March 1973, public meetings were held in Cadiz and Eddyville, Kentucky to present the draft plan to the public and solicit comments. Letters, news releases and public notices were sent to various individuals, organizations, local, state and federal agencies, elected representatives and the news media. Many oral and written comments were received. Other meetings were also held with elected representatives, city and county officials, special interest groups and concerned individuals. These were held to further explain the plan in detail and to exchange views and suggestions pertaining to specific sections of the proposed plan. After evaluating all public input, the draft plan was revised and the final plan was released in July 1973.

In March 1985, a process was initiated to review the 1973 plan to determine if changes were needed. Public meetings were held in Dover, Tennessee, and Cadiz and Eddyville, Kentucky, to receive comments concerning the plan. The Corps did not propose any changes to the plan at the meetings. Comments from these meetings and review by the Corps produced the approved 1986 plan. Changes were made to make conditions for mowing permits more uniform and some minor changes were made in areas where private docks are allowed. Other minor changes are also included in the text of the plan. No areas previously open to private docks and land use permits were closed due to this update.

11. Shoreline Management Plan, 1991-Present

During December of 1992, public meetings were once again held in Dover, Tennessee, Cadiz and Eddyville, Kentucky to collect public input concerning the plan. The comments from these meetings resulted in the 1992 plan. There were significant changes in the way community boat docks are managed as well as reallocation of some areas of shoreline to “Limited Development - opened for private docks”.

The 1992 plan was reviewed and public meetings held, in the winter of 1997/1998. Public input was solicited for changes to the plan at three meetings. These public meetings were held in Eddyville and Cadiz, Kentucky, and Dover, Tennessee. The comments from these meetings resulted in the 1998 plan. Changes were made to require erosion control around docks and additional trees to be planted if necessary. Requiring tree plantings would serve the purpose of providing subsurface water filtration and promote biodiversity.

The 1998 plan was reviewed and public meetings held in the winter of 2003. The comments from these meetings resulted in the 2004 plan. The maximum size of community docks was changed and approximately ten miles of shoreline was reallocated to allow private docks.

The 2004 plan was reviewed and a public meeting was held in the winter of 2009. Comments were reviewed and changes were included in the 2010 plan. Major changes included twenty foot dock extensions with prior approval and approximately three miles of shoreline were reallocated to allow private docks.

12. Public Involvement

Lake Barkley personnel are available to address any questions concerning the Shoreline Management Plan and policies. Periodic news briefs are mailed to all permittees and anyone who requests to be on the mailing list to keep them informed on shoreline management policy, best management practices, environmental stewardship trends, and other topics of current interest.

Public workshops will be held for any major update in the Shoreline Management Plan. This will also apply to policy revisions which affect changes in land use and/or impact a large number of people.

13. Section 6, Public Law 97-140 Amended By Section 1134(d), Public Law 99-662

Public Law 97-140 stated that no dock, cabin or appurtenant structures, lawfully installed on or before December 29, 1981, shall be required to be removed before December 31, 1989 from a water

resources reservoir or lake project administered by the Secretary of the Army. This law was amended by Section 1134(d), Public Law 99-662 which states that any such facilities existing as of November 17, 1986 cannot be removed except when the dock or structure presents a safety hazard or the permittee fails to comply with the conditions of the permit. When a grandfathered dock presents a safety hazard or the permittee fails to comply with permit conditions, all deficiencies must be corrected upon receipt of notice from the Resource Manager. If all unsatisfactory conditions are not corrected within the specified time period in the notice, the permit will be revoked, the dock must be removed and another permit or outgrant will not be issued.

If a structurally sound dock is damaged or destroyed by a storm or natural disaster, then repairs may be authorized. A grandfathered dock may be rebuilt to its original shape and size or to the maximum size set forth in the current SMP - whichever is smaller.

14. Shoreline Allocation

The shoreline of Lake Barkley is allocated as follows: Prohibited Access Areas, Public Recreation Areas, Protected Shoreline Areas, or Limited Development Areas. These allocations are shown on an eight-part Shoreline Allocation Map on display at the Visitor Center and Resource Manager's Office. Individuals viewing these maps should speak with a Lake Barkley Park Ranger before making a final decision to purchase property adjacent to the public shoreline. This will assure that they are looking at the proper location on the map and that they understand all of the requirements and conditions for privileges on the public shoreline property. A public notice will be issued describing any changes in the map resulting from updates of the shoreline management policy.

a. Prohibited Access Areas. These are areas which are established for the physical safety of the public. Private exclusive use privileges are not allowed in these areas. The following areas are within this classification:

1. The immediate area of the concrete dam and power plant, including the posted danger areas upstream and downstream.

2. The service base, including the warehouse storage areas and the maintenance shop facilities.

3. The restricted areas of the lock, power plant, and switchyard.

Exceptions to the above restrictions allow some organized groups access to certain areas of the power plant and dam. Access to the tailwater fishing area is allowed year-round.

b. Public Recreation Areas. Public Recreation Areas include Corps recreation areas and launching ramps, group camps, public marinas and city, county, or state parks. Future recreation areas are also included in this classification. These areas have been developed around the lake in accordance with the project master plan to provide for recreational needs of the general public. The Lake Barkley Master Plan and Operational Management Plan, Part II, contain descriptions of these areas. Shoreline Use Permits cannot be granted in these areas.

c. Protected Shoreline Areas. These are areas which have been established to retain the natural, undeveloped character of the shoreline, maintain shoreline aesthetics, prevent erosion, and to protect other environmental values of the lake. The ultimate goal in these areas is to protect them from private exclusive uses, which would be contrary to the long-term, best interests of the general public. Fish and wildlife areas, scenic or cultural resource areas, areas impractical for moorage due to water depths, and areas of large public land holdings are included in this designation. The shoreline that adjoins Land Between the Lakes, the Cross Creeks National Wildlife Refuge and the Barkley Waterfowl Management Area are allocated as protected shoreline areas. Shoreline areas that are adjacent to commercial navigation channels are also included in this category.

Pedestrian access, boating, fishing, hiking, photography, and other recreational activities are allowed in these areas as long as they are compatible with the protection of the shoreline and with state hunting, fishing, and boating laws. Access paths, buried water pipelines, riprap, and agricultural leases may be authorized in Protected Areas upon receipt of proper permits and/or Real Estate Outgrants obtained through coordination with the Resource Manager. Private docks and/or residential mowing privileges are not permitted in Protected Areas.

d. Limited Development Areas. Mowing and/or private dock privileges may only be granted to adjacent private property owners in these areas. Limited Development Areas on Lake Barkley are further classified according to the type of private use authorized. The two sub-classifications are Private Dock Facilities and Land Based Activities (mowing). The extent of the Limited Development Area for Land Based Activities is greater than that for Private Dock Facilities, since many areas which may be open to mowing may front shorelines which are impractical for moorage of floating docks.

15. Activities Requiring Shoreline Use Permits

Shoreline Use Permits may be issued for private dock facilities and mowing privileges on public property within designated Limited Development Areas. All applications for shoreline use shall be made to the Lake Barkley Resource Manager. Shoreline Use Permits are non-transferable and become null and void upon sale or transfer of the adjoining property or the death of the permittee and his/her legal spouse. A new permit may be issued to a new adjoining private property owner after he or she submits a completed application and the required fees.

Uses of public lands and waters that are permitted to adjacent landowners are privileges, not rights. The Corps fully expects and requires that all activities on public lands and waters be in compliance with Corps policies, rules, regulations and permit conditions. Failure to comply with all such provisions may result in cancellation of all activities previously permitted and/or licensed on public lands and waters. For example, a boat dock permit is subject to cancellation for violations of a land use permit or real estate license requirements. Likewise, land use permits and activities granted are subject to cancellation for violation of a boat dock permit or real estate license requirements (see Section 22).

Persons with permits or licenses shall comply with any laws, regulations, conditions, or instructions affecting the activity authorized if and when issued by the Environmental Protection Agency, or any Federal, state, interstate or local governmental agency having jurisdiction to abate or prevent pollution. The disposal of any toxic or hazardous materials on the public property is specifically prohibited. Such regulations, conditions, or instructions in effect or prescribed by the Environmental Protection Agency, or any Federal, state, interstate, or local governmental agency are a condition of all permitted or licensed activities. They shall not discharge waste or effluent from their private property. They must obtain approval in writing from the Resource Manager before any pesticides or herbicides are applied to public lands or waters.

No one, including persons with permits or licenses, shall remove or disturb, or cause or permit to be removed or disturbed, any historical, archeological, architectural or other cultural artifacts, relics, remains or object of antiquity. In the event such items are discovered on the public land, they shall immediately notify the Resource Manager’s Office and protect the site and the material from further disturbance until the District Archeologist, Resource Manager or his/her representative gives written clearance to proceed.

16. Land Based Activities

Any alteration or modification of natural vegetation or landforms on Corps of Engineers' public property at Lake Barkley is prohibited without the express written approval of the U.S. Army Corps of Engineers (see Section 22). However, in Limited Development Areas for mowing, adjoining private property owners may apply for a Shoreline Use Permit to mow and maintain the public property between their property and the lake. Dense undergrowth can be removed to make it possible to mow, but cutting trees greater than one inch in diameter is prohibited. The type of vegetation to be removed must be clearly specified on the individual's land use plan and approved by the Resource Manager before any work is initiated. Limbs may be trimmed up to one third the height of the tree, not to exceed seven (7) feet. The use of bulldozers or graders of any type to clear vegetation on public land is strictly prohibited. The Resource Manager or his/her representative will specify the limits of clearing in previously unmowed areas.

a. Boundary Line Encroachments. The public property line around the lake has been established and marked with concrete monuments in the ground, signs on metal or fiberglass posts, and yellow marks on trees near the line. It is the responsibility of each adjoining property owner to know the exact location of his or her property lines and corners. Removal or alteration of public property line markers or survey points is expressly prohibited and a violation of Federal law. Construction on or alteration of public land can be avoided by proper research and planning to prevent costly removal of private structures and/or after-the-fact restoration of public property.

b. Boundary Line Marking. Permittees will be required to mark the boundary line between their property and public property according to the approved plans. This requirement helps the general public determine the extent of public property. The permittee may accomplish this by one or a combination of the following methods:

1. Plant and maintain native trees or shrubs on or near the private property corners and on forty-foot centers along the public property line.

2. Maintain a birdhouse or feeder attached to a 4" X 4" wooden post on or near the private property corners and on forty-foot centers along the public property line. A property line sign may be attached to selected posts by a Corps ranger.

3. Plant and maintain a solid hedgerow along the public property line.

4. Install a fence or wall on private property next to the public property line.

The Resource Manager must approve the method of delineation. In heavily wooded areas where the planting of additional vegetation is impractical, the boundary will be delineated with Corps of Engineers property line signs and/or yellow blazes painted on trees.

c. Additional Requirements. The following measures are required for all dock or mowing permits issued since April 1998. Permittees must plant and maintain trees and/or shrubs on the public land at a density of 24 trees or shrubs per acre. Fifty percent of the plants must be trees and they must be a minimum of one-inch base diameter. Shrubs must be a minimum size of two-gallon containers. In areas that are partially or totally wooded, the permittee will be required to plant trees or shrubs only where needed to establish the required density. Existing trees or shrubs on public land will be counted towards the 24 per acre total. Trees can be close together and randomly planted to simulate natural conditions. Symmetrical planting on evenly spaced centers is not natural in appearance and will not be required except to delineate property boundaries. If trees die, they must be replanted. Planting designs must use only indigenous plant materials. Designs can be approved on a case-by-case basis for planting of native ornamental trees and shrubs, wildflowers, and grasses. All planting designs and layouts must be approved before planting. A list of species recommended for shore-line planting is available at the Resource Manager's Office.

When the Resource Manager determines erosion control is required, the permittee must stabilize the bank on a portion or all of the shoreline. The permittee will have one year from permit issuance to complete this requirement. Erosion control can be accomplished by one or a combination of three methods: placing quarry-run stone (riprap), placing existing natural rocks, or using vegetative structures along the shoreline (see Section 24).

17. Private Dock Facilities

Private dock facilities consist of individual docks, community docks, or courtesy floats, as described below. Permits for these facilities will be issued only in Limited Development Areas allocated for private docks. These permits are subject to all Corps policies, regulations and permit conditions. Failure to comply with such provisions may result in cancellation of the permit (see Section 22). Applicants must submit a Shoreline Use Permit Application with a detailed plan of the proposed facility. Each application will be considered according to location, amount of lake frontage, pool fluctuation, shoreline characteristics, water depth,

and impact on public use. The density of private docks allowed will depend on the criteria under a.(1), below. Docks are for the moorage of boats only and shall not contain diving boards, slides, grills, sinks, household appliances or amenities, roof decks, furniture, or similar facilities. The dock may be equipped with a storage box (not to exceed 50 cubic feet), a bench (not to exceed 4 feet long by 2 feet wide) and a safety ladder. These items must be an earth-tone color (*ladder may be aluminum*) and must be securely bolted to the dock in a manner that does not obstruct access ways. Applicants may also obtain a Real Estate Outgrant to install electric and water lines on the dock (see Section 20). Tree plantings and erosion control on the shoreline are a requirement for obtaining a permit in most instances (see Section 16).

a. Individual Docks. To be eligible for an individual private dock, an applicant must own private property, which qualifies for a residential building permit and directly adjoins Corps's property (not separated by a public road, public right-of-way, or subdivision common area or leased property) at the proposed dock location. Furthermore, the applicant must have at least 50 feet of frontage property at the proposed dock location. Only one dock will be permitted per individual at a single location. Therefore, an individual with a large parcel or group of contiguous parcels of private property adjoining public property will be permitted only one dock, regardless of total lake frontage. The permittee will be responsible for all watercraft moored at the permitted dock. The permitted dock may not be rented, leased, or licensed to other individuals.

1. Location. A new individual dock should be constructed within the limits of the shoreline defined by the shortest possible lines from the adjoining private property corners to the shoreline at normal pool elevation as determined by the Resource Manager. The dock must also be located at least fifty feet away from any other dock. The Resource Manager or his/her representative will designate the exact location of the facility. The density of facilities will not be more than 50% of the Limited Development Area. Whenever possible, a location will be selected which will allow neighboring adjacent landowners to also qualify for dock privileges.

2. Size. Docks including the boats moored shall not extend more than fifty (50) feet from the beginning of the walkway (at least 359.5 feet above MSL) to the outer edge of the dock in a direction perpendicular to the shoreline. In locations where inadequate water depth limits the use of the dock, the Resource Manager may approve up to a twenty (20) foot walkway extension. These requests will be evaluated using depth soundings to determine the feasibility and overall benefit of the extension. Additionally, the dock shall not extend more than one-third the width of the cove

or creek at normal summer pool. The maximum allowable width for individual private docks is forty (40) feet. The maximum allowable total surface area (overall length x width) is seven hundred (700) square feet, including the slip(s) but excluding the access walkway (if four feet wide or less). The Resource Manager may reduce any of these size limits if the proposed dock may interfere with navigation, preclude another adjacent landowner from qualifying for a private dock due to spacing restrictions, or limit public recreational use of the lake. Floating platforms, rafts, decks, etc., which do not have enclosed hulls or are not designed and used primarily for recreational navigation will be considered a part of the dock structure. A boatlift may be allowed in conjunction with an approved dock. The space occupied by the lift will be counted toward the size limitation of the dock therefore boat lifts should be placed inside u-shaped slips when possible.

3. Construction Criteria. Fixed piers, fixed walkways, or fixed docks are prohibited. Floating docks must be properly constructed and firmly secured in place with shoreline anchors and/or spud poles. A concrete footer to attach the walkway to the shoreline shall not exceed five (5) feet by five (5) feet surface area. If spud poles are used, they must be long enough to allow for fluctuation of the lake to the flood pool elevation of 378 feet above MSL. Docks cannot be moored to trees.

Only encased materials that will not sink when punctured will be approved for flotation. The use of pontoons or barrels for flotation is prohibited. The Resource Manager maintains a list of approved flotation materials. Shoreline Use Permit Condition #14 specifically addresses flotation material.

Steel, aluminum, concrete, fiberglass, pressure treated wood or a combination of these are acceptable building materials for docks. Roofs may be authorized for the protection of the applicants' boat, but may not be used as a sun deck or storage area. Enclosed boathouses will not be permitted. Roof overhangs on docks shall not exceed three feet. Handrails may be installed on the dock and walkway and are encouraged. If the dock is painted, it should be an earth-tone color, such as green, brown, or tan. A permit tag furnished by the Resource Manager must be displayed on each dock so that it can easily be seen from the waterway. The permittee must maintain the structure in a safe and structurally sound condition. Reference Section 20(a) for safety requirements concerning electrical installations associated with private docks.

b. Community Docks. A community dock can reduce the visual and physical impacts of private development along the shoreline, by replacing several potential individual docks with one centralized facility. In order to equitably accommodate as many adjacent

property owners as possible in congested areas, the Resource Manager may determine that only community dock applications will be approved. Property owners who qualify for individual docks can benefit from a community dock association in several ways. Overall construction and maintenance costs per person are generally lower for a community dock than for a separate individual dock. Electrical installation, maintenance, and inspection costs would also be lower per person in the case of a consolidated dock. The permit cost is reduced because only one facility, and consequently one shoreline use permit, is needed to serve several adjoining property owners.

The members of the legally incorporated community association own the community dock. Individual slips may not be rented, leased or licensed, nor may any other commercial activity be associated with the operation of the facility. The length of a community dock walkway will be limited to 50-foot, ending at the inside of the first slip. The dock shall not extend more than one-third the distance across a creek or cove at normal summer pool. Since inside walkways are shared in a community dock facility, the total surface area of a community dock shall not exceed 475 square feet per member. Community docks permitted prior to July 2004 may add slips at 700 square feet per member with approval of the Resource Manager. The Resource Manager may reduce or deny expansion of the dock if it is determined to be in the best interest of the public. If the proposed expansion is approved, the dimensions of additional slips shall not exceed that of the existing slips. The construction requirements are the same as for private individual docks. The community dock must be located within the limits of an area defined by the Resource Manager or his or her representative so that it is at least fifty feet from any other existing dock. Community docks shall be permitted only in shoreline areas allocated as Limited Development for private docks. Public lands will not be made available for parking. No offshore moorage will be approved. Community docks may not accommodate individuals who do not own property contiguous to public property allocated as Limited Development for private docks. Existing community docks will continue to operate under their approved Corporate Charter and By-Laws.

There are two types of community dock associations authorized on Lake Barkley:

1. Association of Individual Property Owners. Two or more individuals, each of whom meet all the requirements for obtaining a permit for a private dock, may form a legal, non-profit corporation and apply for a community dock. Individual slips will be assigned to specific individuals. Since the permit is issued to the association, new members (those who purchase the adjoining private

property of a former member) would not have to apply for a separate permit. The association would simply notify the Resource Manager of the change in ownership. The association must furnish the Resource Manager with a list of the names, addresses, and subdivision lot numbers of all members and provide notification of any changes in membership annually. Moorage at a community dock by individuals who are not members of the association may not exceed fourteen days. A member of the corporation is not eligible for an additional individual private dock permit. However, a person with a permit for an individual dock can give up his permit to participate in a community dock. Liability insurance coverage is required, and shall be issued as a single policy, not a series of individual policies.

2. Association of Multiple Family Developments. A community dock permit may be issued to an incorporated association of property owners of a condominium, cluster home development, or similar residential development with jointly owned property (i.e. common area) directly fronting a Limited Development Area allocated for private docks. The individual occupants must own residential units. This excludes apartments or rental units in which residents do not actually hold title to the property involved. Persons eligible to use the community dock will be determined by the legally incorporated property owners association. Since the number of residents will generally exceed the number of slips available, association by-laws must clearly state the criteria for dock usage and turnover. Also, a property owners association shall qualify for a community dock permit only after the residential development is substantially completed, fifty per cent of the units are owner occupied, and the association officers are bona fide residents. The purpose of this requirement is to assure that the community dock is for the legitimate recreational use of actual residents and not a speculative venture by developers to enhance marketability.

For permitting and fee purposes, a community dock serving a multiple family development is defined as a single facility of up to twenty (20) boat slips. The maximum number of slips allowed will be determined by allotting one slip per sixty-five linear feet of available shoreline suitable for placement of individual private docks (fifteen-foot average dock width with a minimum clearance between docks of fifty feet). The Resource Manager will determine if eligibility, demand, and site conditions warrant consideration of additional facilities to the same incorporated association. Additional facilities, regardless of the number of boat slips allowed in each, will be assessed as separate community docks. No other private dock will be allowed within the community area.

3. Guidelines for Establishing a Non-Profit Corporation.

(i) The applicant for a community dock must be a legal non-profit corporation. Copies of the state certificate of incorporation, the corporate charter, corporate by-laws, and a list of officers and members (names, addresses, phone numbers, and subdivision lot numbers) must be submitted with the application. Boat registration numbers of vessels to be moored at the facility shall be made available upon request. The charter must state that, "The purpose for which the corporation is organized is to obtain a permit from the U. S. Army Corps of Engineers to construct and maintain a community boat dock facility, and not to engage in any activities which are inconsistent with local, state, or federal laws."

(ii) The corporate by-laws must clearly state:

* The qualifications for participation.

* Evidence of membership on a non-discriminatory basis.

* Procedures for utilization by members, routine maintenance, and removal of inoperable or ineligible vessels, and reassignment of slips.

* The schedule for regular meetings, and procedures to deal with problems occurring between scheduled meetings.

* There shall be no correlation between unit ownership and slip assignment or use. Individual slips cannot be rented, leased, or licensed.

(iii) The corporation must submit a shoreline use permit application with detailed plans showing the location of the facility on the shoreline and the type of construction. No deviation from the approved plans is allowed without the prior written approval of the Resource Manager.

(iv) The responsible corporate representative must sign a statement certifying that the rules and conditions covering the issuance of the permit have been read, understood, and agreed to by all members.

c. Courtesy Floats. Courtesy floats are different from other private docks in that they are only for temporary day use (no extended moorage authorized). Such floats may be authorized to provide daytime boat tie-up and landing facilities for residents of adjacent condominiums or apartment complexes, which adjoin Limited Development Areas approved for private docks. Roofs will not be allowed on courtesy floats. Courtesy floats must conform to all other construction requirements and maximum size limitations

applicable to individual private docks. The Resource Manager may determine a lesser maximum size based on the demonstrated needs of the development. The permit for a courtesy float may be issued either to the property owners association of a condominium or the property owner of a rental building.

18. Existing Enclosed Boathouses

Existing enclosed boathouses that were approved prior to the original Lake Barkley Lakeshore Management Plan in 1973 will be allowed to remain in their present condition. When the ownership of the boathouse changes, the new permittee will be required to modify the dock to create a substantial opening such as a window or fenced door. This will allow the interior of the structure to be readily inspected to assure that it does not contain facilities such as refrigerators, stoves, toilets, etc., to make the dock conducive to human habitation.

19. Other Activities Approved By The Resource Manager

a. Paths. The Resource Manager may authorize a meandering path not to exceed four feet in width to improve pedestrian access to the lake. Tree cutting will not be allowed. The path must blend in with the natural terrain, and only a natural surface will be permitted. The use of natural material for stepping-stones will be allowed if such material is placed flush with the ground and the resulting appearance is not that of a sidewalk. Access paths across public lands will be restricted to pedestrian use only and will be available for the use of the general public. This does not include the construction of concrete, metal, or wooden walkways or steps; these structures require a license from the Real Estate Division and are approved on a case-by-case basis in Limited Development Areas.

b. Hazard Tree Removal. The Resource Manager can authorize the removal of damaged trees, downed trees, or selected standing trees if he or she determines that such conditions constitute a bona fide safety hazard. These activities will be considered on a case-by-case basis and coordinated with the U.S. Fish and Wildlife Service to ensure compliance with the Endangered Species Act. Generally when a standing tree is allowed to be removed, a suitable replacement tree must be planted somewhere on public land and/or a portion of the trunk will be left standing to provide wildlife habitat. The planting of native trees and shrubs and/or species beneficial to wildlife is encouraged on public land.

c. Burning. The burning of materials that produce toxic fumes, including, but not limited to, household garbage, tires, plastic, flotation materials or treated wood products is prohibited. Burning

of leaves, driftwood and storm-damaged vegetation on public lands may be authorized in the drawdown zone only (shoreline between summer and winter pools) where allowed by local regulations.

d. Minor Fills. The filling of holes, eroded drainage areas, or other safety hazards on public land and/or flowage easement lands above the ordinary high water elevation may be authorized on a case-by-case basis. The depth of the fill shall not exceed one vertical foot or a total of ten cubic yards. Any fill application plans that exceed the one foot or ten cubic yard maximum will require an offset plan for flood storage capacity in accordance with the Nashville District's Cut and Fill Policy. Applicants must submit complete plans and obtain written approval from the Corps of Engineers before placement of any fill material on flowage easement land.

e. Aquatic Plant Control. Native aquatic vegetation is beneficial to the aquatic ecosystem. Certain non-native species, such as Eurasian Water Milfoil and Hydrilla have the potential to drastically alter the ecological balance, recreation potential and adjoining land values at Lake Barkley. When aquatic plant management is required, priority consideration will be given to physical and biological controls to the maximum extent possible. The Resource Manager will be responsible for aquatic plant management at priority Corps operated public use areas such as beaches and launching ramps. The Corps will not be responsible for aquatic plant control around commercial marinas, private docks, community docks, utility water intakes, etc.

Generally, individuals desiring to remove aquatic plants manually or with hand tools to restore access to boat docks may do so without formal authorization from the Resource Manager. The use of commercial harvesting equipment, dredging, or rotovating will be evaluated on a case-by-case basis and may be permitted in writing by the Resource Manager or through a Department of the Army permit, if applicable. If aquatic herbicides are to be used, only those specifically approved for aquatic use by EPA will be authorized in strict accordance with label restrictions. Plant control for the benefit of individuals, commercial marinas and utility water districts will be accomplished by a licensed, certified, commercial applicator operating under written authority (permit obtained in advance) of the Resource Manager, at no expense to the government.

20. Activities Requiring Real Estate Instruments

Items that involve structures placed on public land or changes in landform are covered by a lease, license, or other legal outgrant. All commercial development activities require a real estate lease.

Minor privileges, such as water or electrical lines and steps, are covered under a license.

Applications for leases, licenses, easements and any other Real Estate Instruments will be made through the Resource Manager's Office and will be coordinated and issued by the Real Estate Division.

a. Electrical Lighting and Equipment. Electrical equipment, including service for a private dock or shoreline security light, may be permitted provided that the installation of such equipment does not pose a safety hazard or conflict with other recreational use. Electrical facilities on public property shall be approved only to provide security lighting or power for a permitted private dock. The Resource Manager or his or her representative will approve the location of all security lights on public land. Electrical installations must meet all applicable codes. The electrical service must have an electrical disconnect above the flood pool elevation of 378 MSL that allows the service to be turned off quickly in case of an emergency. The electrical disconnect must be located within clear view of the dock. The state electrical inspector must certify the electrical installation, and a copy of the electrical inspection certificate must be furnished to the Resource Manager within 120 days of notice. A copy of every subsequent re-certification (e.g. for rewiring or adding more outlets) shall also be furnished to the Resource Manager. Because of the potential hazards of electrical shock, the Resource Manager will require removal of any electrical equipment if the installation cannot be certified. Overhead electrical lines will not be permitted unless the Resource Manager determines that natural conditions preclude underground installation. Electrical lines or fixtures cannot be affixed to trees on public property.

b. Water Withdrawal Pipelines. Applications for water withdrawal pipelines may be considered for adjacent landowners who have a valid shoreline use permit and the total quantity of water to be drawn from the lake does not adversely affect project operations. Applicant must complete a "Water Withdrawal Data Sheet for Individuals" for the Nashville District to determine this impact. Water withdrawal pipelines will only be approved for use on public property within the permit holder's allocated area. Permanent sprinkler systems are not allowed to be installed on public property. All water withdrawal pipelines will be buried except where the Resource Manager determines that natural conditions preclude such installation. Water pumps, which are not of a submersible design, must be located on private property or on a permitted private dock.

c. Potable Waterline (non-withdrawal). Potable waterlines from private property shall be approved only to provide water for a permitted dock facility. All potable waterlines must be installed underground or can be attached underneath or along the side of steps or otherwise concealed from view. Existing waterlines installed above ground that cannot be installed as mentioned above must be removed upon sale or transfer of the property.

d. Marine Railways. Applications for new marine railways on Corps fee property will no longer be accepted. Existing marine railways, maintained in a safe condition, may remain under the authorization of a Real Estate license to current or future owners. A Consent to Easement may be granted for a marine railway to serve the moorage needs of landowners where the Corps holds only an easement estate. The installation must accommodate the existing contour of the shoreline.

e. Steps and Walkways. Licenses for steps or walkways may be granted when the Resource Manager deems such facilities are needed to provide safe access to permitted private moorage facilities. These licenses will be considered on a case-by-case basis in locations where terrain is steep or other conditions exist which make access difficult. Steps and walkways shall not exceed four (4) feet wide and shall be for pedestrian access only. If concrete is used it must be flush with the ground and the color must blend with the surrounding natural environment (i.e. pea gravel, brown, or gray). Sidewalks and above ground walkways that do not access the dock, or are T-shaped, Y-shaped or consist of more than one walkway will not be permitted. Handrails must be constructed of rigid materials, which provide adequate support (i.e. wood or metal). Handrails that are strictly decorative are not allowed (i.e. rope handrails). All approved handrails must include a three foot break at points designated by the Permit/License to provide for lateral pedestrian access. In any case, the materials to be used and overall design must be approved by the Resource Manager before installation. Upon transfer of the adjoining private property, the new owner may apply for a license to continue use and maintenance of the structure.

f. Personnel Lifts. Licenses for the construction of personnel lifts or similar structures may be permitted in special situations in which an immediate family member of the applicant has a documented long-term physical disability. Personnel lifts will be permitted only in Limited Development Areas allocated for private docks and the size of such facilities will be limited in order to minimize impact on the shoreline. Upon transfer of the adjoining private property, the licensee must remove the structure and restore the area to its original condition. This requirement will be a condition of the license.

g. Agricultural Leases. New agricultural leases may be issued on a case-by-case basis. First consideration will be given to the quality of existing or potential wildlife habitat. If it is determined that the agricultural activity will have an adverse impact on aquatic or terrestrial wildlife communities, the application for lease will be denied. Existing agriculture leases for hay, grazing, and water access purposes adjacent to established agricultural property may be renewed. Where agriculture leases are in place efforts will be taken to limit animal access into the water by requiring buffer strips and granting potable water utility line licenses. A lease may be cancelled if there is a problem with overgrazing and water pollution (i.e. area denuded of vegetation and cattle feces in water). Where land area permits, a suitable buffer strip along the immediate shoreline shall be left unmowed and undisturbed for additional erosion control purposes. If water access is needed, erosion control and/or fencing may be required. Overgrazing of public land will not be permitted. The total area of private land and public land grazed will be managed by the permittee to ensure that the number of livestock present is not in excess and will not be detrimental to the resource. Agricultural leases will not be issued for residential mowing purposes. Areas leased for hay and grazing purposes must remain open for the recreational use of the general public. These areas may not be subleased. Reference Exhibit B for Agriculture Land Use Regulations.

h. License for Limited Commercial Facilities. Licenses may be issued for courtesy docks and related facilities to service a limited commercial lodging operation (i.e. campground, hotel, bed & breakfast) that is located immediately adjacent to waterfront government property in a “Limited Development Area – Open to Docks”. The maximum number of slips allowed will be determined by the lesser of the following: (1) allotting one slip per sixty-five linear feet of adjacent shoreline suitable for the placement docks or (2) allotting one slip per lodging unit. Fees for this type of license will include fair market rental value as assessed by Real Estate Division.

i. Consent to Easement Instruments. The placement of certain types of structures (not for human habitation) on flowage easement property may be allowed provided the work does not interfere with the intent of the flowage easement estate. Applicants must submit complete plans through the Resource Manager’s Office to obtain written approval. A Consent to Easement instrument will be issued by the Real Estate Division.

21. Consolidation Of Real Estate Outgrants And Shoreline Use Permits

If the same individual holds both a Shoreline Use Permit and one or more Real Estate Outgrants, the terms will be adjusted based on the instrument that is due for renewal first, so that the permit and all outgrants issued to an individual can be renewed simultaneously.

22. Prohibited Items, Encroachments, Unauthorized Structures and Destruction of Public Property

Land owned by the federal government around Lake Barkley is for use by the general public. Private exclusive uses not specifically authorized above are prohibited. Prohibited items include, but are not limited to:

a. Structures including but not limited to, patios, fences, sidewalks, buildings, pools, sheds, satellite dish antennas, playground equipment, planters, etc.

b. Flowerbeds, gardens and orchards.

c. The spreading of sand, gravel or any other material to construct a beach or private access ramp.

d. The storage of any object including but not limited to, firewood, boats, trailers, grills, trash cans, scrap material, pet houses and pens, etc.

e. The disposal of litter, leaves, trash, or any other debris or waste.

All unauthorized structures and private items shall be removed from government property within thirty days of written notice. Trash, litter, and debris shall be removed immediately upon verbal or written notice. Prohibited items are subject to impoundment and removal by the Corps of Engineers at the owner's expense. When a moorage permit is revoked, the unsafe and dilapidated dock will be removed by the government. The permit will not be reinstated or reissued until reimbursement has been made to the government for the cost of removal. Violations may result in the issuance of a citation requiring the payment of a fine and/or appearance before the U.S. Magistrate and/or revocation of all or part of the Shoreline Use Permit/License.

In cases of destruction of public property, restitution for damages may be pursued in the form of replanting and/or monetary payments and/or the current Shoreline Use Permit/License may be revoked and all private facilities removed from public property at the owner’s

expense. Additionally, a moratorium may be placed on the issuing of any new permits/licenses or renewals for land use and moorage facilities in the affected area. The moratorium on the use of public land will be for the property owner who is responsible for the violation and/or any future adjacent property owner(s) for a period up to 15 years.

In instances where vegetation has been damaged, destroyed, altered or removed from public property, the amount of restitution and the length of the revocation/moratorium will be determined based on the International Society of Arboriculture's (ISA) *Guide for Plant Appraisal* by applying the Trunk Formula and/or Replacement Cost Method to assess an appraisal to determine the dollar value as a result of the destruction of vegetation on public property. Any destruction resulting in damages of greater than $5,000 but less than $10,000 will result in a five year revocation/moratorium period, damages greater than $10,000 but less than $15,000 will result in a revocation/moratorium period of ten years and damages greater than $15,000 will result in a 15 year revocation/moratorium period. The permittee/applicant may have an independent appraisal conducted by an individual trained in the use of ISA's *Guide for Plant Appraisal.*

In instances where archaeological sites have been damaged or destroyed on public property, the Corps will review the actions. Violations may result in the revocation of all or part of any offender's existing Shoreline Use Permit/License. The Corps may also take additional actions as appropriate, such as citations under 36 CFR 327 or the Archaeological Resource Protection Act.

The U.S. Army Corps of Engineers has implemented a property protection program known as "CORPS WATCH", which was developed to reduce vandalism, larceny, arson and environmental and cultural degradation of government property. This program utilizes a toll free hotline (1-866-413-7970) and provides cash rewards of $100 to $1,000 to individuals whose information leads to the arrest and prosecution of offenders. The call center is available 24 hours a day 7 days a week and callers can remain anonymous.

23. Aids to Navigation and No-Wake Areas

The U.S. Aids to Navigation Western Rivers System specifies the accepted navigation markers on Lake Barkley. No-wake areas can be approved for marinas, public boat launching areas and other public areas after a navigation review to determine the impact on commercial navigation. Coordination will be made with the Kentucky Department Fish and Wildlife Resources (KDFWR), Division of Law of Enforcement and the Tennessee Wildlife Resources Agency (TWRA). No-wake designations will not be given solely to protect private docks.

Privately owned buoys placed on public waters will be considered unauthorized structures and are subject to summary removal or impoundment under authority of Title 36, Section 327.20.

24. Activities Requiring Department of the Army Permits

Activities involving excavation of the lake bottom, depositing dredged or fill material into the lake, construction of outfalls, intakes, pipeline crossings, installation of fish attractors, etc. require Department of the Army approval under Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act. Some categories of work have previously been authorized under provisions of nationwide or regional permits (general permits) so that an individual Department of the Army Permit is not required. The average processing time for non-controversial, individual permit applications is sixty (60) days from the date a complete application is received in the Corps' Nashville District Office. Because of the public notification process required, controversial applications, which involve potentially adverse environmental impacts, could take much longer and ultimately be denied. Therefore, applications should be submitted to the Resource Manager as far in advance of the proposed work as possible.

a. Dredging. Applications for dredging are accepted in Limited Development Areas allocated for boat dock privileges to provide sufficient water depths for boat access to permitted dock facilities. All spoil material must be disposed of in an upland area above elevation 378′ MSL. Measures to control siltation and erosion of dredged material shall be outlined on the initial application.

b. Shoreline Erosion Control. Shoreline erosion control is encouraged because it benefits public property as well as the adjacent private property owner. Placement of quarry-run stone (referred to as riprap), with its inherent habitat values for aquatic life, is the least expensive and most effective structural method of shoreline erosion control.

Normally stone less than six inches in diameter does not provide adequate erosion protection and will not be approved for use as riprap. However, if large stone is used and recreational access is desired across the riprap, a pedestrian access way can be prepared by top-dressing with a limited amount of fine stone material to fill voids and make access safe and easy. Small stone can also be approved for use as a filter blanket, provided it is topped with large stone. The Resource Manager will recommend the proper way to install the riprap for a particular situation and will require a

method, which will minimize destruction of vegetation along the shoreline.

Riprap will be placed along the existing shoreline and in a continuous manner without creating inlets, boat harbors or jetties. No land reclamation will be authorized. Public land disturbed by equipment used for placing riprap must be leveled, seeded, mulched, and replanted (with trees if required) to restore vegetative cover to the shoreline. The Resource Manager will verify and approve in writing bank stabilization activities that do not exceed 500 linear-feet under a Department of Army Nationwide Permit. However, bank stabilization activities in excess of 500 ft. along the shoreline or in an amount greater than one cubic yard per linear foot (below the ordinary high water mark) will require additional coordination and subsequent processing by the Corps Regulatory Branch.

Vegetative structures can also be used to control shoreline erosion. Mechanical bank stabilization is used to protect the existing vegetation, while the biotechnical approach (or vegetative approach) saves existing vegetation, which alone is not strong enough to hold the slope or shoreline. These biotechnical methods are an alternative to riprap, and combine mechanical and vegetative methods to stabilize a site by constructing living structures that control erosion and sediment. Vegetation used may include native woody species which root easily, such as willow, ash, dogwood, maples, birch, sycamore, locust and even forsythia. As plants become established they control erosion and promote a more natural shoreline appearance.

The construction of retaining walls is prohibited. This method of erosion control is more expensive to install and maintain than other erosion control methods. It also creates the appearance of extensive private use and eliminates habitat for aquatic life. Experience has shown that many existing walls were not properly constructed and are subject to cracking and undercutting.

c. Fish Attractors. Manmade fish attractors are covered under Department of the Army Nationwide Permit #4, Fish and Wildlife Harvesting, Enhancement and Attraction Devices and Activities. Permits for fish attractors may be issued by the Resource Manager if the installation meets the general Nationwide Permit conditions and specific conditions for Lake Barkley.

25. Water Quality

Because Lake Barkley provides aquatic habitat, recreational opportunities, and a dependable residential, municipal, and industrial water supply, safeguarding the water quality of the lake

is of utmost importance. The cooperation of area residents and federal, state, and local agencies is necessary in this effort.

a. Trash, Refuse, Debris. The disposal of household trash, grass cuttings, leaves, tree limbs, waste oil or chemicals, or any other material on public lands or waters is strictly prohibited. Burning household trash or garbage on public land is also prohibited.

b. Privately Owned Sanitary Facilities on Adjoining Property. Septic tanks, drain fields, and other sanitary facilities on adjoining private property are regulated by the Kentucky Department of Public Health and the Groundwater Protection Division in the Tennessee Department of Environment and Conservation (TDEC). The construction or installation of a septic tank or drain field on public land is not allowed. However, the Resource Manager may consider an application for expansion of an existing sanitary drain field onto flowage easement property (below elevation 378 MSL) provided all the following conditions are met:

1. Site conditions on flowage easement land are suitable for the expansion of the drain field and will not cause substantial adverse environmental impacts;

2. The existing facility on adjoining private property is not functioning properly and is a possible source of ground water pollution;

3. The state environmentalist responsible for the area provides written documentation that no suitable location for expansion of the existing inadequate sanitary drain field exists above the flowage easement and no other reasonable alternative for disposing of the waste from the affected residence is available.

A Consent to Easement along with applicable fees will be required for a privately owned sanitary drain field on flowage easement property.

c. Fill Material. The U.S. Army Corps of Engineers regulates the discharge of dredged or fill material into any waterway or adjacent wetland, regardless of ownership, under the authorities of Section 404 of the Clean Water Act and/or the Rivers and Harbors Act of 1899 (see Section 24). Copies of these regulations are available for review from the Resource Manager.

d. Non-Point Sources of Water Pollution. The Division of Water of the Kentucky Department for Environmental Protection (KDEP) and the Division of Water Pollution Control of Tennessee Department of Environment and Conservation (TDEC) are responsible for the

prevention and control of stream bank dumping, gravel dredging, siltation from unprotected construction sites, and other activities which occur off federal property in the tributaries of the lake and do not involve a direct discharge of fill material as described in paragraph (c) above. The Kentucky Department of Fish and Wildlife Resources or the Tennessee Wildlife Resources Agency may assess penalties for fish kills resulting from water pollution.

e. Municipal and Industrial Discharges. Industries and municipal sewage treatment plants located adjacent to public property, which have outfalls designed to discharge treated effluent directly into the lake, are regulated and monitored by the Division of Water of KDEP and the Division of Water Pollution Control of TDEC. Currently there are four municipal sewage treatment plants with outfalls in Lake Barkley.

26. Grandfathered Privileges (Land-Based)

In an effort to implement this management plan fairly with regard to existing private use on public land, the Resource Manager will honor all prior written commitments of the government. The "grandfather clause" is a provision which allows existing land-based privileges of a type no longer permitted to continue for the individual who originally obtained the permit or outgrant, provided he or she adheres to all terms and conditions of the permit or outgrant. Such permits or outgrants shall remain in effect until:

a. The transfer of ownership of the individual's adjoining private property.

b. The death of the individual and spouse.

c. Permit or outgrant conditions are violated and not corrected upon reasonable notice.

d. The individual voluntarily discontinues the private use covered by the grandfather clause.

e. Otherwise in the public interest.

When any of these events occur, the permit or outgrant becomes null and void. Any future private use on public property at that location must conform to current requirements of the Shoreline Management Plan. Reference Section 13 for policy on existing permitted docks, which are not located in Limited Development Areas allocated for private docks.

27. Fees

Fees associated with the permit or license shall be paid prior to issuing a new permit or license. Shoreline Use Permits will normally be issued for a five-year term. Permits and licenses can be suspended or revoked at any time for failure to pay renewal fees. A non-refundable administrative fee will be charged for Real Estate Outgrants. A schedule of current fees for activities mentioned in this plan is available from the Resource Manager.

28. Appeals Process

Most problems concerning shoreline management can be resolved at the local level through the Resource Manager. If a problem cannot be resolved at this level, documentation of the dispute may be forwarded to the District Engineer for review. The review will focus on any procedural deficiencies in the Resource Manager's decision, or conflicts with the decision and the Shoreline Management Plan. The decision of the District Engineer is final.

29. Procedures for Items Not Otherwise Covered in this Plan

There may be occasions when requests for privileges or work within the scope of shoreline management arise which are not specifically addressed in this Plan. If this occurs, the Resource Manager will take the following actions:

a. Review the request for general conformance with the objectives and intent of the Shoreline Management Plan. Determine if the request is likely a one-time event or whether it will be a recurring demand.

b. If the request is likely a one-time event and a decision concerning the application could clearly be shown to be either contrary to, or not contrary to, the overall public interest in light of the objectives of the Shoreline Management Plan, the Resource Manager shall approve or deny the request in a timely manner and document the administrative file as to the nature of the request and reasons for actions taken.

c. If the request would likely be of a recurring nature, in addition to making a determination and taking action as in paragraph (b) above, the Resource Manager shall forward a copy of the documentation to the Nashville District Office, with a proposal of how such requests should be addressed in updates to the Shoreline Management Plan.

d. If a request is highly controversial, could impact the administration of the shoreline management program by setting a

precedent for similar proposals, or is not clearly in, or contrary to, the overall public interest, the Resource Manager shall forward the request to the District Office for review and joint determination as to the proper course of action. The applicant will be advised in a timely manner as to the status of his or her request and informed of the anticipated date of a decision on the request. Once a decision is made, the Resource Manager will draft proposed wording to be included in updates to the Shoreline Management Plan to address similar requests, and submit the proposal to the District Office for review.

30. Conclusion

It is the intent of the Lake Barkley Shoreline Management Plan to improve the natural aspects of the project and to provide for increased wildlife habitat and biodiversity while providing optimum benefits to the public. Present and future recreational needs of the general public and environmental considerations were evaluated in formulating the Plan. This Shoreline Management Plan will be reviewed periodically, but no less often than every five years, to determine the need for update. As presented, the Lake Barkley Shoreline Management Plan is, and will continue to be, a flexible and working document. Lake Barkley project personnel will continually monitor the needs of all project users and recommend revisions to minimize conflicts between various interests.

Exhibit A – Permit Conditions

1. In order to maintain this permit, the permittee must be in compliance with Title 36, Part 327, Sections 14 and 20, which addresses destruction of government property and unauthorized structures on public lands. Any uncorrected non-compliance issues associated with those sections, or with the conditions below, may result in suspension, revocation, or non-renewal of this permit. Non-renewal or revocation will require removal of any permitted facility(ies) at the owner's expense. Until non-compliance issues are satisfactorily resolved, the permit will not be reinstated or reissued, even if the property changes ownership. It is the property owner's responsibility to inform potential purchasers of any restrictions imposed by the Corps due to non-compliance with permit conditions. By signing this permit, the permittee agrees to this and all other conditions of this permit. This permit is granted solely to the applicant for the purpose described on the attached permit.

2. The permittee agrees to and does hereby release and agree to save and hold the Government harmless from any and all causes of action, suits at law or equity, or claims or demands or from any liability of any nature whatsoever for or on account of any damages to persons or property, including a permitted facility, growing out of the ownership, construction, operation or maintenance of the permittee of the permitted facilities and/or activities.

3. Ownership, construction, operation, use and maintenance of a permitted facility are subject to the Government's navigation servitude.

4. No attempt shall be made by the permittee to forbid the full and free use by the public of all public waters and/or lands at or adjacent to the permitted facility or to unreasonably interfere with any authorized project purposes, including navigation in connection with the ownership, construction, operation or maintenance if a permitted facility and/or activity.

5. The permittee agrees that if subsequent operations by the Government require an alteration in the location of a permitted facility and/or activity or if in the opinion of the district commander a permitted facility and/or activity shall cause unreasonable obstruction to navigation or that the public interest so requires, the permittee shall be required, upon written notice from the district commander to remove, alter, or relocate the permitted facility, without expense to the Government.

6. The Government shall in no case be liable for any damage or injury to the permitted which may be caused by or result from

subsequent operations undertaken by the Government for the improvement of navigation or for other lawful purposes, and no claims or right to compensation shall accrue from any such damage. This includes any damage that may occur to private property if a facility is removed from noncompliance with the conditions of the permit.

7. Ownership, construction, operation, use and maintenance of a permitted facility and/or activity are subject to all applicable federal, state and local laws and regulations. Failure to abide by these applicable laws and regulations may be cause for revocation of the permit.

8. This permit does not convey any property rights either in real estate or material; and does not authorize any injury to private property or invasion of private rights or any infringement of federal, state or local laws, and regulations, nor does it obviate the necessity of obtaining state or local assent required by law for the construction, operation, use or maintenance of a permitted facility and/or activity

9. The permittee agrees to construct the facility within 180 days of the permit issuance date. The permit shall become null and void if construction is not completed within that period. Further, the permittee agrees to operate and maintain any permitted facility and/or activity in a manner so as to provide safety, minimize any adverse impact on fish and wildlife habitat, natural, environmental and cultural resource values and in a manner so as to minimize the degradation of water quality.

10. The permittee shall remove a permitted facility within 30 days, at his/her expense, and restore the waterway and lands to a condition accepted by the Resource Manager upon termination or revocation of this permit or if the permittee ceases to use, operate or maintain a permitted facility and/or activity. If the permittee fails to comply to the satisfaction of the Resource Manager, the District Commander may remove the facility by contract or otherwise and the permittee agrees to pay all costs incurred thereof.

11. The use of a permitted boat dock facility shall be limited to the mooring of the permittee’s vessel or watercraft and the storage, in enclosed locker facilities, of his/her gear essential to the operation of such vessel or watercraft. Use of the facility for any other purpose is cause for revocation of the permit.

12. Neither a permitted facility nor any houseboat, cabin cruiser, or other vessel moored thereto shall be used as a place of habitation or as a full or part-time residence or in any manner which gives the

appearance of converting the public property, on which the facility is located, to private use.

13. Facilities granted under this permit will not be leased, rented, sub-let or provided to others by any means of engaging in commercial activity(s) by the permittee or his/her agent for monetary gain. This does not preclude the permittee from selling total ownership to the facility.

14. On all new docks and boat mooring buoys, flotation shall be of materials which will not become waterlogged (not over 1-1/2 percent by volume ASTM), is resistant to damage by animals, and will not sink or contaminate the water if punctured. No metal covered or injected drum floatation will be allowed. Foam bead flotation that is not subject to deterioration through loss of beads, meets the above criteria, and has minimum density of 1.2 lb/cu ft, is authorized. Foam bead flotation with a density of 1.0 lb/cu ft, but does not otherwise meet the above criteria is authorized provided it is encased in an approved protective coating which enables it to meet the specifications above. An approved coating is defined as warranted by the manufacturer for a period of at least eight years against cracking, peeling, sloughing and deterioration from ultra violet rays, while retaining its resiliency against ice and bump by watercraft. Existing flotation will be authorized until it has severely deteriorated and is no longer serviceable or capable of supporting the structure, at which time it should be replaced with approved flotation.

15. Permitted facilities and activities are subject to periodic inspection by authorized Corps representatives. The Resource Manager will notify the permittee of any deficiencies and together establish a schedule for their correction. No deviation or changes from approved plans will be allowed without prior written approval of the Resource Manager.

16. Floating facilities shall be securely attached to the shore in accordance with the approved plans by means of mooring which do not obstruct general public use of the shoreline or adversely affect the natural terrain or vegetation. Anchoring to vegetation is prohibited.

17. The permit display tag shall be posted on the permitted facility and/on the land areas covered by the permit so that it can be visually checked with ease in accordance with instructions provided by the Resource Manager.

18. No vegetation other than that specified in the permit will be damaged, destroyed or removed. No vegetation of any kind will be planted, other than that specifically prescribed in the permit. In

severe cases of destruction, the current permit may be revoked and a moratorium may be placed on the issuing of any new permits/license or renewals for land use and moorage facilities in the affected area. The moratorium on the use of public land will be for the property owner who is responsible for the violation and/or any future adjacent property owner(s) for a period up to 15 years.

19. In instances where archaeological sites have been damaged or destroyed on public property, the Corps will review the actions. Violations may result in the revocation of all or part of any offender's existing Shoreline Use Permit/License. The Corps may also take additional actions as appropriate, such as citations under 36 CFR 327 or the Archaeological Resource Protection Act.

20. No change in land form such as grading, excavation or filling is authorized by this permit.

21. This permit is non-transferable. Upon the sale or other transfer of the permitted facility or the death of the permittee and his/her legal spouse, this permit is null and void.

22. By 30 days written notice, mailed to the permittee by certified letter, the district commander may revoke this permit whenever the public interest necessitates such revocation or when the permittee fails to comply with any permit condition or term. The revocation notice shall specify the reasons for such action. If the permittee requests a hearing in writing to the district commander through the Resource Manager within the 30 day period, the district commander shall grant such hearing at the earliest opportunity. In no event shall the hearing date be more than 60 days from the date of the hearing request. Following the hearing, a written decision will be rendered and copy mailed to the permittee by certified letter.

23. Notwithstanding the condition cited in condition 21 above, if in the opinion of the district commander, emergency circumstances dictate otherwise, the district commander may summarily revoke the permit.

24. When vegetation modification on these lands is accomplished by chemical means, the program will be accordance with appropriate federal, state or local laws, rules and regulations.

25. The Resource Manager or his/her authorized representative shall be allowed to cross the permittee’s property, as necessary, to inspect facilities and/or activities under permit.

26. When vegetation modification is allowed, the permittee will delineate and maintain the government property line in a clear, but

unobtrusive manner approved by the Resource Manager and in accordance with the project Shoreline Management Plan.

27. If the ownership of a permitted facility is sold or transferred, the permittee or new owner will notify the Resource Manager of the action prior to finalization. The new owner must apply for a Shoreline Use Permit within 14 days or remove the facility and restore the use area within 30 days from the date of ownership transfer.

28. If permitted facilities are removed for storage or extensive maintenance, the Resource Manager may require all portions of the facility to be removed from public property.

29. Docks are for the moorage of boats only and shall not contain diving boards, slides, playground equipment, grills, tables, household appliances/amenities or similar facilities.

30. Personal property of any kind shall not be abandoned, stored or left unattended upon project lands or waters except for those items specifically prescribed in the permit.

31. Special access facilities (i.e. personnel lifts) for persons with documented physical disabilities will be licensed on a case-by-case basis when the Resource Manager deems such facilities are needed to provide safe access to the lake. Upon transfer of the adjoining private property, the licensee must remove the structure and restore the area to its original condition. This requirement will be a condition of the license.

Exhibit B – Agriculture Land Use Regulations

1. Where seeding is required by the lessee, the preparation of seed beds and planting operations for any portion of the leased premises which is subject to erosion shall be on the contour in conformance to established practices for that type soil.

2. The lessee hereby agrees that he will reseed and fertilize as required to maintain a sufficient sod to prevent and/or retard erosion and build soil fertility. The use of fescue seed is excluded from the leased area. The reseeding may be with legumes, commercial grasses and/or mixtures thereof, other than Johnson grass, as determined by the lessee. Verification of seeding and fertilizing as to quantity shall be furnished to the District Engineer or his authorized representative upon request. The District Engineer or his authorized representative shall be the sole judge of the sufficiency of the sod.

3. The lessee shall regulate his grazing activities to weather and seasonal conditions to prevent overgrazing and possible erosion. The District Engineer or his authorized representative shall be the sole judge of overgrazing. Grazing of sheep, hogs and goats shall not be allowed. The lessee shall not burn over the leased area to clear sedge grass or any vegetative matter. It shall be the responsibility of the lessee to construct and maintain the necessary fences to confine livestock to the leased area, also to provide gates or other means of passage through or over said fences to afford public access to the shoreline. Any fences constructed by the lessee shall remain the property of the lessee and shall be removed from said premises at the expiration or revocation of this lease.

4. In order to assist the Government in its efforts to reduce the production of price-supported crops in surplus supply, the lessee agrees in accepting this lease that he will not utilize the leased premises for the purpose of planting, cultivating or producing any such crops. The lessee further agrees that in the event he breaches this condition for any reason, the Government shall have the option, at the election of the Secretary, to declare and take any crops so planted, cultivated or produced as the property of the Government without payment to the lessee. The lessee further agrees that the exercise by the Secretary of the option herein contained shall be construed to be in addition to and not in derogation of any other rights, which the Government has under this lease.

5. The lessee agrees, as part of the consideration for this lease, that he will not accept any Federal cost sharing payments for soil

conservation practices. Further, the lessee agrees that he will not accept any other Federal or State subsidy based on the lease without the written approval of the District Engineer.

6. Government survey boundary markers are to be left undisturbed and protected by the lessee.

7. The grazing of animals other than cattle and/or horses is prohibited.

8. No structures are to be erected on the leased area.

9. No woody vegetation may be removed without advance written permission from the Resource Manager.

10. No filling, ditching, excavation, or mechanized land clearing activities may be performed.