DEPARTMENT OF ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4609

CESWT-OD-RP 19 January 1996

MEMORANDUM FOR Keystone Project Manager

SUBJECT: Keystone Lake, Arkansas River, Oklahoma; Shoreline Management Plan, Operational Management Plan to Design Memorandum No. 12B, Master Plan

Subject updated Shoreline Management Plan is approved in accordance with ER 1130-2-406.

FOR THE COMMANDER:

/S/
LARRY D. HOGUE, P.E.
Chief, Operations Division

Encl (4 cys)

KEYSTONE LAKE
ARKANSAS RIVER, OKLAHOMA

SHORELINE MANAGEMENT PLAN
TO
DESIGN MEMORANDUM NO. 12B
MASTER PLAN

DEPARTMENT OF THE ARMY
TULSA DISTRICT CORPS OF ENGINEERS
OKLAHOMA
1996

KEYSTONE LAKE
ARKANSAS RIVER, OKLAHOMA

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DESIGN MEMORANDUM NO. 12B
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SHORELINE MANAGEMENT PLAN
KEYSTONE LAKE, OKLAHOMA

I - INTRODUCTION

1-01. Purpose. The purpose of this Appendix is to establish policy and guidance for the protection of desirable environmental characteristics of the lake and restoration of the shoreline where degradation has occurred through private exclusive use.

1-02. Authority. Authority for administering this policy is granted under Public Laws 86-717 and 87-874 which charge the Chief of Engineers with the exercise of good conservation practices which promote recreation and with the operation and maintenance of water resource projects in the public interest.

1-03. 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, River and Harbor Act of 1899 (33 USC 403).

d. National Environmental Policy Act of 1969 (42 USC 4321. et seq.).

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

f. The Federal Water Pollution Control Act of 1972 (FWPCA).

g. The Clean Water Act (33 USC 1344, et seq.).

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

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

j. 33 CFR 320-330, "Regulatory Programs of the Corps of Engineers."

k. Executive Order 12088 (13 Oct 78).

l. ER and EP 1130-2-540, "Environmental Stewardship Operations and Maintenance Policies," 15 November 1996.

m. ER and EP 1130-2-550, "Recreation Operations and Maintenance Policies," 15 November 1996.

n. ER 1130-2-406, Shoreline Management at Civil Works Projects, 31 October 1990.

o. EM 385-1-1, "Safety and Health Requirements Manual."

1-04. Private Exclusive Use. Facilities or land to be managed under the guidance of this Appendix include all applicable facilities placed by private citizens on the shoreline and water areas, and areas where vegetative modification (mowing/brushhogging) is permitted for private exclusive use or the appearance thereof. Vegetative modification will be permitted in accordance with paragraph 5-06g. Private floating facilities will be permitted in areas except as follows:

a. In existing or designated public recreation areas; however, facilities proximate thereto may be permitted when the structure does not detract from the intended use of that area.

b. Areas which have aesthetic values worthy of preserving.

c. Areas designated for fish and wildlife.

d. In hazardous areas near the dam and related facilities.

e. Areas designated as Protected Shoreline.

f. Public Organizations (Quasi-Public) areas.

1-05. History. Keystone Lake was authorized by Congress under the Flood Control Act approved 17 May 1950. Construction of the dam began in January 1957 and was placed in operation for full flood regulation in September 1964. Soon thereafter the public was informed through various news media that applications for private floating facilities were being accepted at the resident office. Applicants were required to submit plans and specifications of the facility proposed including structural design, anchorage method, construction materials, and proposed location for the facility. If the structural criteria and the site location were acceptable and the applicant had a residence within the immediate vicinity of the lake, a permit for the floating structure was granted.

In 1974, the Lakeshore Management regulation was published in the Federal Register requiring public input into the plans. The plans, which were derived from input from the Lake Association and other interested parties, were approved by the Southwestern Division Engineer in 1976. In 1981, the plans were reviewed and opened for comment in keeping with SWD guidance to review these plans every 5 years. This review was accomplished by holding workshops at various locations around the lake in order to obtain input from local citizens. In 1986, the Keystone Plan was reviewed. This review resulted in an additional .5 miles of shoreline being designated as limited development.

In 1991, the Lakeshore Management Plan, now referred to as the **Shoreline Management Plan**, was again reviewed by a 30-day public comment period. Public Notices were issued in 3 area newspapers and included in the weekly Corps article. Representatives of the Keystone Lake Association met at the resident office on 8 April 1991 to review revisions to the plan. A total of 4 written comments were received from individuals concerning changes to the Shoreline Management Plan.

In 1996, the Shoreline Management Plan was reviewed during a 30 day public comment period. Public notifications were distributed in 3 area newspapers and included in the weekly Corps newspaper article. Representatives of the Keystone Lake Association, Mannford and Cleveland Chambers of Commerce, Keystone marina operators and the Oklahoma Department of Wildlife Conservation reviewed proposed administrative changes and the public requests for changes to the Plan. The two areas requested by the public to be rezoned for private floating facilities were rejected by the review group and not approved in the updated plan.

II - OBJECTIVES OF THE PLAN

2-01. General. The policy of the Chief of Engineers is to manage and protect the shoreline and the available resources by making as much of the shoreline as possible available to the general public for unrestricted use, while at the same time honoring our past written commitments and not endangering the safety and health of all users.

2-02. Commercial Concessions. Maximum effort will be put forth to attract concessionaires and to establish suitable, well-maintained businesses that will offer desirable water-related services to the general public. There are presently 3 concessions on the lake which are located at Cowskin Bay, Salt Creek Cove, and Keystone State Park.

2-03. Private Exclusive Use. Maximum effort will be exerted to insure that previous commitments are honored and to provide additional space in limited development areas for future expansion. The use of commercial concessions will be encouraged. There are presently 140 shoreline use permits, 114 of which are issued for private facilities, on Keystone Lake.

2-04. Public Involvement. The existing Shoreline Management Plan was reviewed at a public workshop in 1996. Comments and recommendations were received from the public during the 30-day written comment period. All points of concern were resolved by the workshop group and the final recommendations are incorporated into the updated plan.

III - DESCRIPTION OF SHORELINE

3-01. Description. The total shoreline length at normal conservation pool is 330 miles. The topography around Keystone Lake is characterized by steep, broken hills extending up the Arkansas River arm of the lake to the upper reaches where more gently rolling slopes are found. The Cimarron arm of the lake is characterized by gently rolling hills. The upland forests are post oak-blackjack type (cross timbers) and the lowlands are mostly of the bottomland type. Ash and oak are the predominate species. Some of the area can be classified as true prairie of the tall grass type. Virtually no virgin vegetation remains in the area and the quality of the existing vegetation has been degraded by the abuse received since settlement. Both the forest and the prairies have suffered considerably from erosion, uncontrolled fire, and overgrazing. Surface soils are mostly sandy loam, silty loam, and silty clay.

3-02. Present Land Use. The total fee-owned lands above normal power pool is 35,061 acres, of which 232 acres are used for Project Operations; 5,706 acres are used for Recreation-Intensive Use; 9,866 acres are used for Recreation-Low Density; 1,935 acres are Un-Allocated; 150 acres are Natural lands; 3,855 acres are used for Wildlife-Corps of Engineers; and 13,317 acres are used for Wildlife-ODWC. (This information was taken from the Report on Utilization of Civil Works Lands and Facilities, dated 25 November-2 December 1988.)

3-03. Existing Access. In addition to pedestrian access, 30 launching ramps with access roads and 6 severed roads provide access to the lake for boat launching. Three right-of-ways have been granted to local county and city governments for the construction of public launching ramp complexes.

3-04. Private Development. Since the surfaced roads which bound the lake are connected to many county roads leading directly to the lake, extensive development has occurred. At the present time there are approximately 280 real estate subdivisions adjacent to public lands. Construction in these subdivisions range from simple A-Frame cabins to $750,000 condominiums and homes.

IV - SHORELINE ALLOCATION

4-01. General. Based on the criteria given in Section I of this Appendix, the shoreline is allocated into use classifications.

4-02. Allocations.

a. Limited Development Areas. These areas are allocated for private activities, such as vegetative modification, and/or the mooring of privately owned floating facilities following the issuance of a permit in accordance with Section VIII and current Federal regulations. The density of development in these areas will not exceed 50 percent of allocated shoreline. New or relocated docks are to be located no closer than 50 feet from the nearest point of an adjacent dock. Approximately 21 miles of shoreline are allocated for limited development.

b. Public Recreation Areas. These areas are designated as developed public recreational sites for Federal, state, or similar public use and for commercial concessionaire facilities. Privately owned floating facilities will not be permitted in these areas. Modification of land form or vegetation by private individuals or groups will not be permitted. Public organization recreation areas are also zoned under this allocation. These quasi-public areas are designated for use by organizations such as the Boy Scouts, Girl Scouts, YMCA, and the YWCA. Organizations that do not have existing boat docks will be prohibited from installing them in their lease area. Leases that have existing floating facilities will be designated for restricted limited development in the Shoreline Management Plan. Boat docks in quasi-public lease areas will be managed under the terms of the real estate agreement for the individual site. Approximately 55 miles of shoreline are allocated for public recreation.

c. Protected Shoreline Areas. Protected shoreline areas are designated primarily to protect or restore aesthetic, fish and wildlife, cultural, or other environmental values in accordance with the policies of the National Environmental Policy Act of 1969 (PL-190). Shorelines may also be designated in this category for physical protection reasons, such as heavy siltation, rapid dewatering, erosion, or exposure to high wind, wave, and current action. Land access and boating are permitted along these shorelines, provided aesthetic, environmental, and natural resource values are not damaged or destroyed, but private floating or fixed recreation facilities will not be allowed in these areas. Modification of land form or vegetation by private individuals will be permitted only after due consideration of the effects of such action on the environmental and physical characteristics of the area. Approximately 251 miles of shoreline are classified as protected shoreline.

d. Prohibited Access Areas. These shoreline areas are allocated for security reasons, the protection of ecosystems, and the physical safety of the recreation visitors; for example, unique fish spawning beds, certain hazardous locations, areas located near dams or spillways, and recreation areas. Mooring of private floating facilities and/or the modification of land form and vegetation are not permitted. Approximately 3 miles of shoreline are allocated as prohibited access areas.

V - IMPLEMENTATION

5-01. General. Private boat docks are allowed only in limited development areas.

5-02. Areas Authorized for Docks. There are 28 separate areas allocated for limited development as shown in Exhibit VI.

5-03. New Docks. Permits for new structures will be issued on a first-come, first-served basis in the name of the new owner only. An Application For Shoreline Use Permit, ENG Form 4264-R, for a dock permit must be made to the project manager accompanied by a payment for the permit, and 2 sets of structural plans, electrical plans, and specifications for the proposed boat dock in accordance with Exhibit I. Shoreline use permits will only be issued to individuals or groups with legal right of access to public lands. When the plans are approved, a letter permit will be issued and construction may begin. Applicants will have 6 months to complete the facility or the letter permit will become null and void. Extensions may be granted, if warranted. A 5-year permit will be issued after a final inspection is completed. The 5-year permit will include the first construction year and will have the issue date of the letter permit. Permits for new structures will be issued for facilities to be moored in areas designated for limited development only (see para 5-04 for identification tags, fee collection, and permit issuance). Facilities will not be located closer than 50 feet to the nearest point of an adjacent dock.

Multi-slip boat dock permits will be issued in the name of a responsible co-owner of the dock, with the remaining co-owners' names attached to the permit as Enclosure 1. Boat registrations (copy) for each co-owner are also required on the Enclosure for verification of the individual's need for boat moorage. Upon issuance of the approved permit, each co-owner will be furnished a complete copy of the signed permit and advised that each individual is responsible for adhering to the conditions listed on the permit. Non-compliance by any of the co-owners will be grounds for permit revocation in accordance with Paragraph 6-02.

5-04. Existing Docks Under Permit. Identification tags for permitted structures will be given to each permittee. The tags are to be displayed where they can be checked visually with ease. One is to be placed on the lake side of the structure and one on the shore side. The tags will be fabricated on 5" by 6" 3M sign material, and will be printed as shown in Exhibit II. Permits will be issued for 5 years. A charge of $30 which includes a $5 administrative fee and a $5 per year inspection fee will be collected at the time the permit is issued.

5-05. Metal/Wooden Sides on Existing Docks. Existing metal or wooden sided enclosed docks that have been damaged to the point where the substructure is not floating or usable or where the substructure requires modification or replacement, must be rebuilt in accordance with the specifications for new docks; that is, no enclosed sides. However, if repairs to the dock will not affect the substructure, then it may be rebuilt to it's original condition. Any additional slips added to enclosed docks must conform to the open sided requirement. Tulsa District policy allowing approved clear plastic, plexiglass or chain link fence siding remains in effect.

5-06. Other Facilities and/or Activities that may be Permitted. The following facilities and/or activities may be permitted:

a. Ski Jumps. Temporary revocable permits will be issued for ski jumps upon approval of the plans from the requesting club, group, or agency. Permits will not be issued for ski jumps proposed by an individual for private exclusive use. Permits will be issued for a maximum of 180 days. Ski jumps must be removed from the lake upon expiration of the permit.

b. Swimming Platforms. Temporary revocable permits will be issued for floating swimming platforms upon approval of plans. These floats will be subject to the same shoreline allocations as other private floating facilities. Permits will be issued for a maximum of 180 days. Swimming platforms must be removed from the lake upon expiration of the permit.

c. Mooring Buoys. Placement of mooring buoys will be subject to the same shoreline allocations as other private floating facilities.

d. Pedestrian Access Paths. Paths not to exceed 6 feet in width may be constructed to the shoreline with permission of the resident manager. The path must follow a meandering route to prevent erosion and avoid the need for removal of trees and vegetation. The use permit does not convey the right to construct any structure (steps, bridges, etc.) in connection with the path.

e. Stairways, Tramways, and/or Steps. These structures may be permitted in limited development areas. All steps and stairways must be structurally sound and safe with adequate handrails. If painted, all steps and stairways will be painted a color that is visually compatible with the natural background. White, yellow, orange, and other highly visible colors will not be allowed. Lightweight steel, wood, or concrete may be used for these structures, provided the concrete structures are kept at ground level and do not project above the surface of the ground. A license will be issued by the District Real Estate Office in accordance with paragraph 8-03 for such structures, provided the application and plans are approved.

f. Erosion Control Devices. These devices will be permitted where bank erosion is causing a problem or endangering adjacent private facilities. The erosion control structure may be constructed of riprap, wood, placed concrete, or masonry. Restoration of lost soil to return an area to original contours may also be permitted. This does not include the construction of earth dikes or ponds. These types of structures must not be for the purpose of landscaping or beautifying the area with little erosion control value. A permit will be issued by the resident manager for such structures, provided detailed plans showing elevations and proposed work are approved by the resident manager. In some cases, a Department of the Army Permit (Section 10/404) may also be required. The applicability of the Section 10/404 permit requirements will be determined during the review of the application. No administrative fee will be charge for erosion control permits.

g. Mowing/Brushhogging. A vegetative modification permit may be issued for a maximum 30-foot strip of Government property adjacent to private property. Only 1 permit will be required of a single property owner and can include mowing, brushhogging, or tree trimming. Each activity must be requested initially. The extent of modification permitted will be described on the permit form, however:

(1) Permits will allow mowing and/or brushhogging at the permittee's option.

(2) The dates for mowing or brushhogging will be 1 April - 1 October to accommodate breeding patterns of wildlife and to prevent erosion. However, the mowing or brushhogging will be allowed at any time from the start date to the end date.

(3) Where the 30-foot strip only is permitted, in the same permit a 6-foot wide path to the lake will be allowed, if requested. The path should follow a meandering route to prevent erosion and avoid the need for removal of trees.

(4) Vegetative modification in protected areas will continue in accordance with subparagraph 327.30(e)(4)(iii) of Title 36 (see Exhibit III) and subparagraph 5(e)(3) of ER 1130-2-406. Vegetative modification in protected areas should be limited to 30-foot firebreaks and to honor past written commitments when mowing has been allowed to the shoreline.

(5) Permit holders may be required to place boundary markers on the public boundary line in order to show the using public where the private property line begins.

h. Tree Trimming. Trees may be trimmed no more than 1/3 of the total tree height not to exceed 8 feet from the base of the tree. Trimming must be done during the dormant season. No herbicides may be used for control of vegetation. No living trees, brush, or shrubs with a base diameter of 1-inch or larger, 6 inches above the ground, will be cut. Cutting or removal of trees will be allowed only after approval of the application and issuance of a permit. Trees to be cut may be marked by the project manager or his representative in advance. Dead trees of any size may be removed after approval by the resident manager. The sale of any tree that is cut is prohibited. The defacing of vegetation, rocks, or other natural material by painting, whitewashing, coloring, or otherwise changing the natural appearance is prohibited.

i. Buoys. The Corps of Engineers will place navigational aids and safety buoys in the lake for the purpose of protecting lake visitors' lives and/or property and to inform the using public of waterway restrictions or hazards that may exist on the lake. Natural Hazards are not normally marked. Installation of privately owned buoys, which must be Coast Guard approved, may be permitted in accordance with the provisions of the Tulsa District Buoy Policy dated 11 July 1984. Copies of the policy are available at each resident or project office.

j. Applications. Applications for all proposed structures and activities listed in paragraph 5-06 must be made through the resident manager prior to any work or structure being placed on Government lands or waters.

5-07. Prohibited Facilities and Activities. Except by written authorization by the project manager, the following facilities or activities are prohibited:

a. Any type of fixed pier or platform either on the land or extending into the water from the shoreline.

b. Any type of piling or post driven into the lake bottom for the purpose of mooring or tying boats.

c. Any type of sewage or outfall structure.

d. Any type of channel, ditch, canal, or excavation, unless the excavation is in conjunction with an approved erosion control structure or other approved facility.

e. Gardens and any type of lawn/landscape plantings will not be planted except by written authorization for the purpose of restoration of public property.

f. Burning of any materials by private individuals on any Government-owned lands managed by the Corps of Engineers is prohibited except by written authorization of the project manager.

g. Any type of land form modification, construction, or other activity that changes the original or present condition of the land. This includes, but is not limited to, beach construction, channel construction, bank terracing, cuts and fills, or road and trail construction. Erosion control structures as described in paragraph 5-06f and those activities covered under a real estate instrument are exempt.

h. Accumulation of garbage, trash, refuse, litter, or other similar material.

i. Storage of boats, travel trailers, wood piles, or placement of other private items on public land is strictly prohibited. These items are subject to removal and impoundment by Corps of Engineers personnel.

5-08. Application for Permits. Application for permits will be in accordance with the requirement of Section VII.

VI - CONSTRUCTION AND MAINTENANCE REQUIREMENTS

6-01. Minimum Design and Specifications. The Specifications For Minimum Design Standards for Private Floating Facilities are shown in Exhibit I.

In areas which have existing docks, community mooring facilities will be encouraged to individuals requesting new floating facilities to best utilize the space allocated for such facilities. Multi-slip docks will be limited to a maximum of 6 slips. Requests for more than 6 slips must be forwarded to the District Office for review and consideration.

6-02. Removal of Permitted Facilities. At the time the permittee ceases to operate or maintain the permitted facility, upon expiration, if not renewable, or upon revocation of the permit, the permittee shall remove the facility within 30 days at his expense and restore the waterway and lands to their former condition. If the permittee fails to remove and restore the area to the satisfaction of the District Engineer, the District Engineer may do so by contract or otherwise and recover the cost thereof from the permittee. By 30 days written notice, mailed to the permittee by registered or certified letter, the District Engineer may revoke this permit whenever he determines that the public interest necessitates such revocation or when he determines that the permittee has failed to comply with the conditions of the permit. The revocation notice shall specify the reasons for such action. If the permittee requests a hearing in writing within the 30-day period, the District Engineer shall grant such hearing at the earliest opportunity. In no event shall the hearing date exceed 60 days from the date of the hearing request. At the conclusion of such hearing, the District Engineer shall render a final decision in writing and mail such decision to the permittee by registered or certified letter. The permittee may appeal such decision to the Division Engineer within 5 days of receipt of the decision. The decision of the Division Engineer shall be rendered as expeditiously as possible and shall be sent to the permittee by registered or certified letter. The permittee may appeal such decision in writing to the Chief of Engineers within 5 days of receipt of the decision. The decision of the Chief of Engineers shall be final.

6-03. Removal of Non-Permitted Facilities.

a. Abandonment of Personal Property. Facilities will be considered abandoned after a diligent effort has been made to locate the rightful owner, his/her heirs, next of kin, or legal representative in accordance with Section 327.15, Part 327, Chapter III, Title 36, Code of Federal Regulations.

b. Unauthorized Structures. The construction or placement of any structure under, upon, or over the project lands or water is prohibited unless a permit has been issued. This paragraph is subject to Section 327.20, Part 327, Chapter III, Title 36, Code of Federal Regulations. All structures not in accordance with this regulation will be removed.

VII - APPLICATION FOR PERMITS FOR ALL FACILITIES AND/OR ACTIVITIES

7-01. Application for Shoreline Use Permit.

a. Floating Facilities. Applicants will submit two sets of plans and specifications for approval of the facility to include: engineering details; structural design; electrical wiring; anchorage method; construction materials; the type, size, location; owner's address and telephone number; the expected duration of use of the facility; and a statement of willingness to abide by the rules and regulations and conditions of the permit. See Exhibit II General Guidelines for obtaining Shoreline Use Permits on Keystone Lake.

b. Mowing/Brushhogging. Applications for vegetative modification should include the extent of modification, type of vegetation to be modified, and purpose of the work.

c. Other Facilities and Activities. Applicants for facilities, such as ski jumps or erosion control structures, will also furnish the same type plans and specifications as required for existing facilities.

The permit for any type facility or activity will be issued in the name of the responsible party who owns the facility and will not be transferrable. The permits are revocable whenever the District Engineer determines that the public interest requires such revocation or that the permittee has failed to comply with the conditions of the permit or with the conditions in this plan. (See Exhibit I for General Requirements for Floating Structures.)

7-02. Electric Facilities to Docks.

a. Electric Service. On new docks, change in ownership of docks, or the addition of electric service to existing docks, electrical plans and specifications which meet the National Electric Codes must be submitted by a licensed electrician along with the plans for the boat dock. All electric lines on government property must be approved by the project manager and must be buried except where the terrain will not allow. In these cases, the electric lines must be encased in conduit which is approved by the National Electric Code. All new electric lines will require a separate real estate instrument for the service right-of-way. On existing docks, no easements will be required until the dock is sold, transferred to another party, or repairs to or replacement of electrical facilities is required.

b. Real Estate Easements. Information needed by Real Estate Division to process the easements is as follows:

(1) The length of the proposed easement.

(2) A legal centerline description which provides range, section, and township for the proposed easement.

(3) Maps showing the location of the dock as it relates to the cove it is in, and a line indicating the electric line. (One map should be a segment map to show the range, section, and township, and the other map should be a hunting map or lake brochure to show location.)

(4) An approved archaeological review.

(5) A statement from a licensed electrician that the wiring meets the National Electric Code.

(6) A minimum fee of $160 for a five-year license will be charged by Real Estate Division.

VIII - PERMITS

8-01. Shoreline Use Permits. Permits will be issued for any floating structure permanently moored on the lake and for vegetative modification activities which do not involve any disruption to or change in land form.

8-02. Department of the Army Permits. Permits under Section 404 of the Clean Water Act will be required for activities involving the discharge of dredged or fill material into the waters of the lake below the ordinary high water mark. In addition, a permit under Section 10 of the Rivers and Harbors Act of 1899 is required for structures or work that affects the course, location, or condition of the water body. This includes waterlines, powerlines, boat ramps, jetties, and other structures not covered under Title 36 CFR. Shoreline Use Permits, paragraph 8-01, will not be used in these circumstances.

8-03. Real Estate Instruments. All commercial development activities and all activities by individuals which are not covered above and which involve grades, cuts, fills, other changes in land form, or appropriate land-based support facilities required for private recreation facilities, will be covered by a lease, license, or legal grant issued by Real Estate Division.

8-04. Permit Administrative Charges.

a. An annual administrative fee of $10 will be charged for the following:

(1) Ski jumps.

(2) Mooring floats for recreation or other uses.

b. An administrative fee of $30 for a 5-year permit will be charged for the following:

(1) Land Use-mowing, vegetative modification, clearing.

(2) Boat mooring buoys.

(3) Boat Docks.

IX - OTHER LAND AND WATER USES

9-01. Sewage and Solid Waste Disposal.

a. Project Lands. Toilet facilities are provided at all public recreation areas. There are no sanitary landfills on public property. Public recreation areas are operated by local, state, and Corps agencies, each being responsible for disposal of sewage from their respective areas. In areas developed by local municipalities, sewage is disposed of in state-approved disposal plants. In areas developed by the state, sewage is disposed of into total-retention lagoons located in the vicinity or in septic tanks with lateral fields. Removal of sewage from Corps-operated public recreation areas having vault-type toilets is done by commercial contractors who deposit the sewage into a state-approved sewage treatment plant off project lands. Sewage generated from Corps-operated waterborne facilities is treated in septic tanks with lateral field or sewage lagoons. Disposal of solid waste generated on project lands is removed by commercial contractors.

b. Adjoining Lands. Rigorous standards are established and enforced by the State of Oklahoma for the sanitary disposal of sewage and solid waste. This helps to minimize health hazards produced on lands adjacent to the project lands.

9-02. Marine Sanitary Facilities. Marine sanitary facilities are provided for the convenience of boaters on Keystone Lake at Keyport Marina and Westport Marina. Discharging raw sewage from boats or boat docks is prohibited.

9-03. Potential Pollution Sources. Potential pollution sources around the project include faulty septic tanks, subsurface disposal systems, private cabins, concessions, boats, improperly operated sanitary landfills, open dumps, water treatment plants, municipal sewage treatment plants, animal production facilities, open burning, odors, noise, and wash and grease racks which drain into small retention ponds. To date, none of the above listed potential pollution sources have had a significant adverse effect at the project. A routine surveillance and reporting program is carried out by project personnel for any potential problems which might arise.

X - CONCLUSIONS AND RECOMMENDATIONS

10-01. Conclusion. This revised plan provides a means of establishing and maintaining protection of desirable environmental characteristics of the lake and for the restoration of the shoreline where degradation has occurred through private and public use.

10-02. Recommendation. Approval of the plan as submitted is recommended.

EXHIBIT I

GENERAL REQUIREMENTS FOR FLOATING STRUCTURES

Electrical Facility Requirements for Government fee, easement land, or waters.

1. All installations and materials must comply with the N.E.C. for marinas, boatyards and wet locations. Requirements may exceed the N.E.C.

2. A weatherproof disconnect or circuit breaker box must be located on private property, as near to the Corps fee or easement line as practical. The disconnect or circuit breaker box must be weatherproof and must be mounted on a pressure treated post 5 feet high and anchored in the ground 24 inches. The box must be properly grounded using an 8 foot ground rod driven into the ground 2 feet from the post. Wiring entering and leaving the box must be in conduit. Where circuit breakers are installed on floating structures, a high water disconnect must be provided.

3. Wiring leaving the box and installed underground may be direct burial type wire. UF and USE type wire are approved for direct burial without conduit. The bare ground wire should be covered with green tape. The distance of the run and load will determine the wire size. This wiring must be buried a minimum of 2 feet below the surface with warning tape buried 1 foot below the surface. THW or equal stranded wire may be used for the entire installation provided that it is color coded black for hot, white for neutral, and green for ground and installed underground in electrical conduit.

4. All aboveground wiring must be in approved watertight electrical conduit with proper connections. Non-metallic rigid electrical conduit or metallic rigid threaded type conduit may be used. Conduit which leads to receptacles or switches must be supported with sufficient clamps installed to prevent movement. Flexible conduit must be used at all moveable joints. PVC waterpipe is not allowed to be used in lieu of electrical conduit.

5. All excess openings in receptacle boxes, junction boxes, lighting fixture boxes or any other fixture must be plugged with a threaded plug and sealed with a waterproof sealant to insure that they are watertight.

6. All switches exposed to the elements must be installed in waterproof boxes and mounted at least 3 feet above the land or dock surface. Switch covers must be rated for "wet locations when cover is closed."

7. Receptacle covers which are treated as approved for "wet locations when cover is closed" may be used if properly installed and if used only for temporary hookups. They will not be allowed for hookups which are left unattended or that could be rained upon. Receptacle covers which are subjected to rain or will be left unattended must be approved for "Wet locations when cover is open and outlet is in use." All receptacles must be mounted at least 3 feet above the land or deck surface.

8. When the underground feeder wire reaches the walkway to the boathouse or boat dock, a junction box must be installed and THW or equal stranded wiring connected to the underground feeder conductors. The THW wire must be color coded black (hot), white (neutral), and green (ground).

9. The THW wire must be properly wired with polarity checked. The green (ground) wire must be connected to the ground terminal of all receptacles and also to the ground LUG inside the receptacle box and/or lighting fixture box. In addition, when metal poles are used for lighting fixtures, the pole must be grounded using the same grounding circuit to insure continuity of the ground. The ground wire must run continuous back to the on shore ground which protects the entire system. The metal light pole should not be directly connected to the water.

10. ALL RECEPTACLES <u>MUST</u> BE PROTECTED BY A GROUND FAULT INTERRUPTER.

EXHIBIT II

GENERAL GUIDELINES FOR OBTAINING A SHORELINE USE PERMIT ON KEYSTONE LAKE

GENERAL GUIDELINES FOR OBTAINING A SHORELINE USE PERMIT FOR PRIVATE FLOATING FACILITIES ON KEYSTONE LAKE
(Revised Aug 1996)

General

Private Floating facilities (boat docks and mooring buoys) are allowed in specific areas which are zoned as Limited Development in the Keystone Lake Shoreline Management Plan on file at the Project Office. These areas are open to the general public on a first come, first serve basis. Permits are issued for five year periods and are renewable but not transferable. Boat docks, slips within boat docks and private buoys can be co-owned but not rented out or leased.

The use of a permitted boat dock/buoy shall be limited to the mooring of the permittee's vessel/watercraft and the storage of the gear essential to the operation of the vessel/watercraft. Neither the dock nor the moored vessel 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 dock is located, to private use.

New Docks

Persons, clubs or organizations desiring to moor a new structure or buoy in any of these areas must obtain a Shoreline Use Permit from the Keystone Project Manager. The steps involved in this process are; (1) site approval, (2) permit application/construction plan approval, (3) inspection of the completed structure and (4) permit issuance.

I. Site Approval.

A. Site inspections are performed to ensure that, the location the applicant desires is within a Limited Development Zone, that there is sufficient space and water depth and there will be no adverse impacts on the natural resources. Spacing is determined by the length of the proposed structure. No structure will be allowed to obstruct vessel traffic or be located where there is not at least **50** feet between anchor points of the new dock and the existing adjacent docks. The location will also be evaluated for any potential impacts on natural and cultural resources. Historic site suitability (ie. previous mooring failures due to wind exposure and high driftwood flows) may also be a consideration in specific locations. Appointments for site inspection may also be made by calling or writing:

Keystone Project Manager
Route 1, Box 100
Sand Springs, OK 74063-9338
Telephone/Fax: 918 865-2621/5054

B. The Project Manager will not maintain a waiting list for applicants.

II. Permit Application/Construction Plans.

A. The application for a shoreline use permit must be submitted in duplicate with duplicate copies of the structural design plans and materials list before the applicant begins construction. The plans must meet or exceed the current Corps of Engineers minimum design standards. The application forms and the design standards can be obtain from the Keystone Project Office.

B. The construction plans may be in the form of blueprints or pencil drawings. In either case, they should be legible and complete. The drawings must illustrate the dimensions and materials for the dock, the walkway and the anchorage system. Once the plans are approved the applicant must build the structure as drawn. Plan revisions are possible but must be approved by the Keystone Project Manager in writing before the changes are built in to the structure. Hoists do not have to be included in the drawings. Sun decks, patios, swimming platforms, diving boards are not allowed.

C. If the applicant intends to supply electrical service to the proposed structure the following applies:

1. A detailed wiring schematic and a complete material list must be included in the construction drawings. The wiring schematic must be certified, by a licensed electrician, to meet all current applicable electrical codes and regulations. (See attached requirements for electrical service)

2. Submit a written request (addressed to the Project Manager) for a right of way to entrench a buried electric line across public land to the boat dock. Suspended lines will not be approved. Where entrenchment is not possible the line will have to be encased on the surface.

The request must include:

a. Drawing: The drawing must include the point of entry at the boundary, the path of the line from the boundary to the point of attachment to the dock, the distance involved and the depth of the line.

b. Material List: Include all materials to be used. The materials must meet current electrical codes and certified as such by a licensed electrician.

The right of way easement is a separate process from the mooring permit and a fee will be assessed for the use of public land. The assessment will be based on the fair market value of the right of way. The easement will be issued by the Tulsa District Headquarters, Real Estate Division.

D. Anchorage

1. Mooring buoys must be anchored with an approved anchor.

2. Dock anchorage systems must not obstruct the free use of shoreline nor damage vegetation or other natural features. New docks or relocated docks are to be located no closer than 50' from the nearest point of an adjacent dock anchor. Anchorage to vegetation and boulders is prohibited. In designing the anchorage system, the applicant should give careful consideration to the frequent fluctuations of the lake level, ie. Records indicate the lake level has varied from 717 to 757, normal is 723. The deadman anchors may not be located above elevation 732 NGVD In order to provide reasonable access and not obstruct free use of the shoreline. Exemptions, may be considered on a case by case basis due to steep terrain, damage to natural features, etc. Details of the deadman anchors must be included in the construction plans.

a. Anchorage types: Anchorage systems may be any or a combination of any of the following types.

1. Spud or pencil anchors. On Keystone this method is best used in combination with cables and/or stiff arms

2. Stiff arms. Stiff arms should be designed to articulate at the boat dock and should be used with a cable system.

3. Cables. Cables should be anchored to deadman anchors--not trees or rocks.

E. Dock Construction.

1. The construction plans will be validated by the Project Manager. One copy will be retained on file and a copy returned to the applicant. Upon receipt of approved plans, the applicant will have six (6) months to complete construction. All design changes must be approved by the Project Manager before implementation. For security reasons the applicant should construct the basic platform/deck off public land and then tow the structure to the mooring point where final assembly can take place. The applicant will not be allowed to make major changes to the natural shoreline characteristics in order to moor the dock. Driftwood is not considered natural characteristics.

2. Temporary above ground electrical service lines may be placed across Government property during construction without an additional permit. These lines must be removed before final approval of the finished structure can be given. The service line must be switched so that it can be de-energized when not in use.

3. Pedestrian access paths, approximately six (6) feet or less in width, are authorized to cross Government land to the construction site without a written permit. Major

alterations to landform or vegetation will not be allowed. An approved boat dock permit does not authorize the construction of a road or vehicle trail across the Government between the dock and private property.

4. The construction of stairways, tramways and/or steps across Government property may be authorized by a separate Real Estate instrument. The applicant must request authorization in writing and furnish two copies of plans and specifications prior to construction. A fee will be assessed for the renewable license by Real Estate Division.

F. Construction of erosion control devices on Government land proximate to the mooring site may be authorized by separate permit. The applicant must request authority in writing with duplicate plans.

III. Issuance of Permit.

1. Upon completion of construction, the applicant shall make arrangements to have the structure inspected. A Ranger will inspect the completed structure for compliance to the approved design.

2. Upon approval of the structure, the applicant will be requested to mail a thirty ($30) dollar personal check, cashier's check or money order to the Keystone Project Manager to cover the cost of the permit and the administrative cost of periodic inspections. The check should be made payable to: **FAO USAED TULSA**

3. Upon receipt of the payment, the Project Manager will return the completed permit authorizing the structure and lakeshore usage for a period of five (5) years. Enclosed with the permit will be two numbered permit signs. The permittee must attach these signs to the lakeside and shoreside of the structure.

4. Multi-slip boat dock permits will be issued in the name of a responsible co-owner of the dock, with the remaining co-owner names attached to the permit as Enclosure 1. Boat registrations (copy) for each co-owner are also required on the Enclosure for verification of the individuals need for boat moorage. Each co-owner will be furnished a complete copy of the signed permit and will be responsible for adhering to the conditions of the permit.

5. Permits are not transferrable. The permittee shall notify the Project Manager immediately upon change of ownership. New ownership requires a new permit.

Existing Docks.

I. Permit Renewal.

A. The Keystone Project Manager will notify the permittee at the time of expiration. The letter of notification will include new application forms and instructions for renewal of the permit.

B. Individually-owned structures are permitted in the name of the responsible party who owns the facility and shall be renewable in that name only, in the name of the surviving spouse, or until ownership of the structure changes.

C. Multi-owned structures permitted to several owners shall be renewable until such time as the last of the original owners dies or sells his/her share of the structure.

II. Purchase of Existing Dock.

A. If an existing permitted dock is purchased, the purchaser must obtain a new Shoreline Use Permit in order to ensure continued rights to anchor the structure to the shoreline. The Shoreline Use Permit held by the previous owner becomes invalid upon the transfer of the title.

B. Prior to the issuance of a new permit, an inspection of the facility will be made. Any discrepancies found during the inspection must be corrected before the permit can be issued. Docks with electrical service must be inspected and certified by a licensed electrician that the electrical system meets National Electric Codes. A separate Real Estate instrument shall be required for new electrical lines or when the dock is sold or transferred. The failure to make the required repairs within a prescribed time limit set forth by the Project Manager will jeopardize consideration for permitting the structure.

III. Repair of Major Structural Damage.

A. **Permitted facilities must be operated, used and maintained by the permittee in a safe and structurally sound condition at all times.** When major structural damage occurs, the permittee should notify the Project Manager within ten (10) days of his or her decision to do one of the following:

1. Remove the entire structure from the Lake and relinquish the permit.
2. Rebuild the structure using the most current design specifications.

B. If the permittee decides to rebuild, new construction drawings conforming to the current design specifications, including foam requirements and electrical certification, must be submitted to the Project Manager for approval before reconstruction can begin.

EXHIBIT III

PERMIT

KEYSTONE LAKE

PERMIT: KY-

THIS PERMIT IS NONTRANSFERABLE

US Army Corps
of Engineers

EXHIBIT IV

EXCERPT OF TITLE 36 CFR PART 327.30
SHORELINE MANAGEMENT AT CIVIL WORKS PROJECTS

EXHIBIT V

AREA ALLOCATIONS

KEYSTONE LAKE
AREA ALLOCATIONS

	Shoreline Miles	Percent	Private Floating Facilities
Public Use Areas	55	17	0
Limited Development Areas	21	6	114
Protected Shoreline Areas	248	75	0
Prohibited Access Areas	6	2	0
TOTALS	330	100	114

EXHIBIT VI

GRANDFATHER RIGHTS-EXISTING BOAT DOCKS

GRANDFATHER RIGHTS

House Creek Cove is closed to additional docks as requested by the Oklahoma Department of Wildlife Conservation. The docks within this cove are considered under the grandfathered rights clause.

1.	Brace	KY - 023
2.	Reynolds	KY - 27
3.	Miller	KY - 034
4.	Buntin	KY - 093
5.	Troxell	KY - 110