



**US Army Corps  
of Engineers®**

Louisville District

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# Shoreline Management Plan

Cecil M. Harden Lake

18 July 2001

REGULATIONS PERTAINING TO  
C. M. HARDEN LAKE (RACCOON LAKE)  
WABASH RIVER BASIN, INDIANA  
SHORELINE MANAGEMENT, LOUISVILLE DISTRICT  
CORPS OF ENGINEERS-INDIANA DEPARTMENT OF NATURAL RESOURCES  
EFFECTIVE DATE 01 JANUARY 1996

1. Administrative and Regulatory Guidelines.

a. **Purpose.** The purpose of this regulation is to provide policy and guidance on the management of the shoreline of Cecil M. Harden Lake, Indiana. It is designed to provide for a balanced use of the shoreline while preserving and protecting the natural resources of the project.

b. **Scope.** This plan is applicable to Cecil M. Harden Lake. Shoreline shall be construed as the portion of Cecil M. Harden Lake that is held in fee simple estate by the U.S. Army Corps of Engineers whether or not it is covered by water. Easement estate held by the Corps of Engineers is not considered under this regulation, but is subject to the restrictions recorded in the easement document.

c. **References.**

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

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

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

(4) The National Environmental Policy Act of 1969 (42 USC 4321, et seq.).

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

(6) 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."

(7) Executive Order 12088 (13 Oct 78).

(8) 33 CFR 320-330, "Regulatory Programs of the Corps of Engineers."

(9) ER 1130-2-406, "Shoreline Management at Civil Works Projects."

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

(11) EM 385-1-1, Safety and Health Requirements Manual."

(12) Indiana Natural Resources Commission Policy on Private Bank Ties and Group Boat Docks, Raccoon Lake (C. M. Harden).

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

(14) Indiana Department of Natural Resources General Property Regulations.

d. **Policy.** It is the policy of the Chief of Engineers to manage and protect the shorelines of all Lakes under the Corps of Engineers jurisdiction. All management activities will be conducted in a manner that will promote the safe and healthful use of these shorelines for recreational purposes by the public while safeguarding fish and wildlife habitat, aesthetic quality, and natural environmental conditions. Ready access to and exit from these shorelines shall be provided for the general public in accordance with reference C(9) of this section.

e. **Objective.** The objective of all management actions by the Corps of Engineers and the Indiana Department of Natural Resources will be to achieve a balance between authorized private uses and resource protection for the benefit of the general public. Priority will be given to the protection of the resource over private uses that may have detrimental effects on that resource.

The objectives of the Shoreline Management Plan are:

(1) To preserve, protect, and enhance the environmental quality of Cecil M. Harden Lake.

(2) To promote the safe and healthful use of the Harden shoreline for recreational purposes for the general public.

(3) To manage the private use of public property in a manner that maintains a balance between authorized private use and protection of the resource for general public use.

(4) To promote restoration of the shoreline where degradation has occurred.

(5) To protect aesthetic quality and sustain natural conditions.

(6) To minimize the impact upon resources where private use is authorized.

(7) To protect and enhance the fish and wildlife within the area.

## 2. Development of Shoreline Management Plan.

A Shoreline Management Plan is required for each Corps of Engineers' project where private shoreline use is allowed. The original Lakeshore Management Plan was developed by the Corps and the IDNR through a public participation process and put into effect in 1978. This plan allocated the lakeshore for the entire lake into the various classifications or zones and outlined the authorized activities for each zone. Included were fee schedules for permits, specifications for community docks, guidelines for vegetation alteration and debris removal, as well as other factors affecting shoreline use. A change in the nationwide regulation governing shoreline management at Civil Works Projects, dated 31 October 1990, has made it necessary to revise and update the plan for Harden Lake. In formulating the revised Shoreline Management Plan, the previous allocation of the shoreline was carefully reviewed to determine if the existing zoning was adequately serving the needs of the using public. Each area was evaluated to determine if the existing zoning was appropriate. The entire plan was subjected to a public involvement process and valid public concerns and comments have been incorporated herein. The next review and update to the Shoreline Management Plan will be scheduled five years from the effective date of this plan.

## 3. Shoreline Allocation.

a. **General.** Shoreline allocation (zoning) is the designation of the Corps of Engineers' property into various land management zones. Specific activities or uses are permitted for each type of management zone. The land use allocations have been made in a manner which the Corps of Engineers and the Indiana Department of Natural Resources deem to best manage and protect project resources for the benefit of the general public, while at the same time providing a certain level of private use to adjacent property owners. The placement of riprap material in no way effects the zoning of the project. The entire shoreline of Cecil M. Harden Lake has been allocated into one of the zoning areas outlined in Paragraph 3. b., and delineated on the map found in Appendix A. A large scale aerial photograph with the zoning marked is available for viewing at the Cecil M. Harden project office and at the Raccoon State Recreation Area office. The zoning classification assigned to an area applies to the land from the water's edge to the project boundary. The exact locations where zoning classifications change are delineated using project monumentation as described in Appendix B.

### b. **Types of Zoning.**

(1) **Prohibited Access.** These are areas in which public access is not allowed for health, safety or security reasons. They are accessible to authorized personnel only. At Cecil M. Harden Lake these

areas include both the Corps and State shop and maintenance areas, as well as a section of the dam adjacent to the outlet structure.

(2) **Public Recreation Areas.** These areas are designated for concentrated use by the general public and include day use areas, campgrounds, launching ramps, and commercial concessionaire facilities. No private shoreline uses are allowed in or near these areas or in designated future recreation areas as defined by the project Master Plan.

(3) **Protected Shoreline Areas.** These are areas where no shoreline use permits are authorized for bank ties, private floating facilities or fixed recreation facilities. The areas have been so designated to maintain aesthetic features or to protect specific resources. Factors considered in a Protected designation may include: the potential for erosion, excessive siltation, exposure to high wind or wave action, fish and wildlife habitat and water depth. Normal foot traffic for access, hiking, fishing or other activities not involving alteration of the resource is allowed in a Protected Shoreline Area. The only other private uses allowed in these areas are erosion protection utilizing riprap or a permit for debris removal. These uses may be allowed only after the Corps Park Manager (or his representative) has determined that no adverse environmental impact will result and a permit or license has been issued to the individual. No permission is required for entry upon Protected Shoreline Areas and no individual shall attempt to impede the free access by the general public to these lands. *Seawalls are not allowed in a Protected Shoreline Area.*

(4) **Limited Development Areas.** Limited Development Areas are shoreline areas in which private uses or facilities are authorized through the issuance of a license or permit. The specific activities that can be permitted are listed in Paragraph 8. Activities or structures may be allowed only after the licensee or permittee has taken steps to ensure the protection of the environmental resource.

**c. Zoning Changes.**

Redesignating zoning classifications is considered a major change to the Shoreline Management Plan and therefore requires a public involvement process as part of the formal revision. Requested changes which have significant benefits and no adverse impacts may be incorporated into the revised plan after complete coordination with the IDNR. The revised plan will be subject to public review and comment prior to submission to the Commander, Ohio River Division for final review and approval.

4. Permits, Licenses, Leases or Easements.

**General.** Private development can be authorized on project lands designated as Limited Development Areas through the issuance of a permit or license.

Applications for all structures or actions requiring a permit, lease, license or easement (with the exception of group boat docks and bank ties), will be submitted to the Corps Park Manager at the project. This includes but is not limited to; steps, electric lines, pathways, etc. Applications for group boat docks, bank ties, duck blinds, fishing tournaments, and hunting and trapping permits will be submitted to the Indiana Department of Natural Resources Property Manager. All plans for the construction of any structure must be submitted with the appropriate application. Detailed plans are required by both the Corps of Engineers and the IDNR.

The responsibilities of each agency are as follows:

(a) **Corps of Engineers.** All permits and licenses issued by the Corps will be processed by the Corps Park Manager or his/her representative, after the initial inspection of the area with the applicant. Permits or licenses will be issued only to adjacent property owners and/or their tenants, or owners of property in a developed subdivision adjacent to government property who have a legal right of access to the shoreline. Applicants may be required to furnish documentation showing their right of access. In the event that the proposed action is unacceptable, the request will be denied at field level and a record of the action with the reasons for denial will be entered into the project files. Shoreline use permits, if acceptable, will be issued by the Corps Park Manager and any permit fees collected at that time. If a license application is acceptable, all application documents (plans, specifications, conditions and recommendations) will be forwarded to the IDNR for concurrence, as applicable. After the license application is approved by the IDNR, it will be forwarded to the Corps District Office for the issuance of the appropriate document. Any required fees will be collected at the time the license application is accepted and approved.

Inspection for compliance with the conditions of these items is the responsibility of the Corps Park Manager or his/her representative. Annual compliance inspections on all licenses and permits will be conducted by the Park Manager or his representative. Any noncompliance with the provisions of the license/permit will be brought to the attention of the instrument holder for correction at field level where possible. Noncompliance with the provisions of the outgrant document will result in the prompt termination of the outgrant document and removal of the outgrant structure.

(b) **IDNR.** All IDNR permits (boat docks, bank ties, etc.) will be processed by the IDNR Property Manager and forwarded to both the Director of Reservoir Management and the Director of the IDNR (or their designees) for their concurrence and approval. Permits or licenses will

be issued only to adjacent property owners, owners of property in a developed subdivision adjacent to government property who have a legal right of access to the shoreline or to tenants of trailer parks who obtain and provide concurrence from the property owner. Inspections for compliance with the conditions of the permit shall be the responsibility of the IDNR Property Manager or his designee. Any noncompliance with the provisions of the permit will be corrected at field level when possible. When necessary, recommendations for revocation of a permit will be promptly forwarded to the Director of Reservoir Management for concurrence and approval. When the permit has been terminated the permittee will be required to remove the associated structure and restore the area to a natural condition, satisfactory to the IDNR.

5. Conditions of Permits, License or Leases.

a. **Corps of Engineers.** All private facilities located on water resource projects must be covered by a permit, lease or license. All private facilities not so covered by a legal instrument will be considered unauthorized structures and will be removed in accordance with Part 327.20, Title 36, CFR. In addition, the owner of the unauthorized structure may be cited into a U.S. Magistrate's Court for violation of the same CFR. Violations of this regulation may result in a fine or imprisonment. No private facility will be allowed on public lands until the lessee, licensee, or permittee has a valid approving document in his possession. The private facility will be constructed in accordance with plans approved by the Corps of Engineers. All construction carried out on Corps lands must be inspected and approved by the Park Manager or his representative. In the event that such construction does not meet minimum required standards, work will be promptly halted until those standards are met. If the necessary standards are not promptly met, the permitting document will be revoked and the structure will be removed by the owner, who will also be required to restore the work site to its original condition. If the owner does not remove the structure within 30 calendar days of written notice to remove, the structure may be removed by project personnel.

Whenever possible, all existing permits and licenses held by an individual will be combined to reduce costs and administrative paperwork. The duration of the various instruments varies with the nature of the document. However, whenever possible the expiration dates of the various instruments will be coordinated to a common date so that renewals can be accomplished simultaneously and payment can be made with one check.

b. **IDNR.** The placement of any facilities or any action taken in regard to vegetation alteration, terrain modification, archaeological disturbance or artifact removal as spelled out in this regulation without benefit of the appropriate permit, license or lease is a violation of IDNR General Property Regulations. Violations of the State Regulations may be punishable by a fine or imprisonment.

## 6. Fees for Permits, Leases or Licenses.

The current fee schedule for both the Corps and the IDNR is included in Appendix C.

a. **Corps of Engineers.** A fee will be charged for each license and permit issued by the Corps of Engineers, unless otherwise indicated in this plan. Such fees are due in advance and must be paid in full prior to the initiation of any construction or permitted activity.

(1) Fees for licenses are based on fair market value for use of the land, or the government's administrative cost of processing the document, whichever is greater. These fees are subject to change as the market values fluctuate or administrative costs vary. A current license fee schedule will be provided by the Corps Park Manager upon request.

(2) Fees for permits are established by Headquarters, U.S. Army Corps of Engineers and are applicable nationwide. These fees may be subject to periodic update. A change in the fees schedule does not constitute a major revision of the Shoreline Management Plan and an update of the plan is not required for each fee change.

(3) Licenses and permits are nontransferable and refunds will not be made for any unused portion of a license or permit that the grantee terminates before the expiration date. Upon the sale or other transfer of the permitted facility or the death of the grantee and his/her legal spouse, the instrument is null and void.

(4) Fees may be paid in the form of check, money order, or cashiers check. Only the exact amount of the fees due will be accepted.

b. **IDNR.** Fees for private group boat docks, bank ties, hunting, and fishing tournaments will be paid to the IDNR.

## 7. Grandfathered Private Facilities.

a. **Private Facilities Located in Areas not Designated for Private Development.** A limited number of licenses, vegetation alteration permits and bank tie permits have been approved in areas zoned Protected Shoreline. These facilities or activities predate the initial zoning that was completed in 1978. The original holder of the instrument (or a surviving spouse) may continue to renew the license or permit as long as all other applicable conditions are met. When these original instrument holders terminate their interest in the licensed/permitted facility, the instrument is automatically voided and the facility must be removed. No new permits or licenses will be issued to a new owner of property adjacent to Protected Shoreline areas.

b. **Individual Docks.** All single docks installed prior to 01 January 1978 will be allowed to remain at their present site as long the

original permit holder (or spouse) maintains the dock facility in a safe and satisfactory manner. All repairs will be made in accordance with IDNR standards prescribed for a group boat dock. When the original dock permit holder terminates his interest in the single dock or fails to maintain the structure, it will be removed from the lake. In the event that the owner does not remove the facility within 30 calendar days after receiving written notice to remove, the structure may be impounded and removed by IDNR personnel in accordance with Indiana Department of Natural Resources General Property Regulations.

8. Private Facilities or Activities that may be approved in Limited Development Areas.

Appropriate specifications and requirements for the following facilities and activities are included in the attached referenced Appendices.

a. **Corps of Engineers.**

(1) **Licenses.** The following facilities may be authorized in Limited Development Areas by the issuance of a license by the Real Estate Division after approval by the Park Manager:

(a) **Stairways and Steps.** Licenses for stairways and/or steps may be issued provided that the structures do not interfere with project operation, are not obtrusive and are constructed in such a manner as to be easily removed. Specifications and conditions for stairways and steps and the application procedure are found in Appendix D.

(b) **Electric Lines.** Electric service may be licensed for the installation of lighting and convenience outlets, providing that the service poses no safety hazard nor conflicts with other recreational uses of the project. No permanently installed electrical service is allowed on floating facilities due to the widely fluctuating pool levels of Cecil M. Harden Lake. The conditions and specifications for electric service installation and the application procedures are contained in Appendix E.

(c) **Erosion Control Devices.** Erosion control devices are allowed where bank erosion is a problem. They may be issued as a license or a shoreline use permit. The licenses are free due to the benefit derived by the project as a result of these devices. Structures may be riprap, stone filled baskets, seawalls, or vegetative cover in Limited Development Areas. In Protected Shoreline Areas only riprap and vegetative controls may be used. Specifications and conditions for erosion control devices are found in Appendix F.

(d) **Roadways.** Roadways may be licensed only in

conjunction with access from public roads to private property. Private roadways providing vehicular access to shoreline facilities, ramps, parking lots and turnarounds are prohibited.

(e) **Footpaths and Footbridges.** Reinforced footpaths and footbridges may be licensed where terrain features such as ditches or ravines make them necessary to provide safe public access to the shoreline. Reinforced paths may be used as cart paths by persons with disabilities under certain conditions. See Appendix G for specifications and conditions.

(2) **Shoreline Use Permits.** The following facilities or activities are allowed under a permit that is approved and issued by the Cecil M. Harden Lake Park Manager.

(a) **Vegetation Alteration.** Vegetation alteration, to include mowing, removal of underbrush, selected tree removal and driftwood removal will be allowed only after the issuance of a permit by the Park Manager or his designated representative. Primarily, vegetation alteration is to allow improved access to the shoreline. The general mowing policy is to minimize the appearance of private use of government property and to gradually restore areas where lawns exist to a more natural state of vegetation. This will be accomplished with the voluntary compliance of permit holders through a gradual reduction in mowing areas and a limit to the amount of vegetation that can be removed. No herbicides may be used for vegetation control. Vegetation alteration permits are covered in Appendix H. A fee is charged for a vegetation alteration permit in accordance with Appendix C.

(b) **Special Act Permits.** Certain activities or acts of an unusual nature and generally a one-time occurrence may be permitted by a letter permit from the Park Manager after a determination has been made that the activity is necessary and that no significant adverse impact will result from this act. Application must be made to the Park Manager in writing, outlining the nature and purpose of the request. Each request will be reviewed separately and the permit, if issued, will outline all the conditions of the permit.

(c) **Special Events Permits.** Certain events such as scouting jamborees, fireworks, etc. may be held on Corps managed land. An application must be made to the Park Manager in writing outlining the details and nature of the request. Each request will be reviewed separately and the permit, if issued, will outline all the conditions of the permit.

(d) **Erosion Control Devices.** Erosion control devices are permitted where bank erosion is a problem. They may be issued as a license or a shoreline use permit. The permits are free due to the benefit derived by the project as a result of these devices. Structures may be riprap, stone filled baskets, seawalls, or vegetative cover in

Limited Development Areas. In Protected Shoreline Areas only riprap and vegetative controls may be used. Specifications and conditions for erosion control devices are found in Appendix F.

(3) **Section 404.** Certain activities are regulated under the authority of Section 404 of the Water Pollution Control Act and are subject to the Endangered Species Act, the National Environmental Policy Act and the Fish and Wildlife Coordination Act. These regulated activities include dredging, extensive riprapping, construction of outfall lines, intake structures and other fixed structures, large seawalls, and the filling and discharge of dredged materials. Permits for items of this nature are issued by the Regulatory Functions Branch of the Operations Division. All requests to perform any of the above activities should be coordinated through the Cecil M. Harden Lake Park Manager.

**b. Indiana Department of Natural Resources.**

(1) **Group Boat Docks.** All group boat docks will be constructed to minimum basic standards. The docks may be privately constructed or of a manufacturer's standard design. Group docks are permitted only at general locations that have already been designated as suitable dock sites by the IDNR Property Manager and the Corps Park Manager. All private docks are considered to be group docks and additional slips may be added to accommodate future applicants. Dock locations will be selected to best serve all members and the IDNR Property Manager has the authority to direct the relocation of a dock to better serve a group. Specifications, conditions and application procedures for group boat docks are found in Appendix I. A fee is charged for dock permits. Fee information is found in Appendix C.

(2) **Bank Ties.** Bank ties are permitted only in Limited Development Areas at sites designated by the IDNR Property Manager or his authorized designatee. Bank ties will be constructed by the permittee according to standards established by the IDNR found in appendix I. Fee information is found in Appendix C.

(3) **Duck Blinds.** Waterfowl hunting may be permitted in designated areas of land leased to the State of Indiana, after the successful applicant has obtained a one day hunting permit. Blinds are not allowed in areas managed by the Corps of Engineers. The permittee shall not cut vegetation or otherwise alter government property to construct the blind. Floating blinds may be allowed, subject to State of Indiana hunting regulations. All federal and State laws, rules and regulations are in force in the hunting, taking or trapping of all fish and game species. No fee will be charged for duck blind permits.

(4) **Dove Hunting.** A limited number of permits are issued daily for controlled dove hunts at fixed locations. Hunters are selected by conducting a drawing from a pool of qualified applicants. Permit holders are assigned a specific predetermined location.

(5) **Special Event Permits.** Requests by such organizations for use of grounds or facilities to conduct contests, shooting matches, water or angling contests, or other special events will be handled in accordance with the following policies:

(a) Such activities shall be confined to areas so designated by the property Master Plan. In the absence of a Master Plan, the director may designate an area for temporary use.

(b) areas designated for special uses must be so located and designed as to provide for the widest variety of compatible activities (archery, trap shooting, gun practice, etc.).

(c) Such areas must be open to all groups and the general public by reservation on a first-come, first-served basis unless otherwise authorized.

(d) Permission for use or reservation of such areas must be requested through and approved by the Director of the Department of Natural Resources or his designated representative. Along with an application for such permit must be attached the permanent procedures and policies proposed.

(e) Under no circumstances will private clubs or organizations be permitted to establish, construct, or erect permanent or temporary facilities or structures on property owned by or leased to, the Department of Natural Resources unless otherwise authorized.

(f) Such areas will be reserved for limited periods of time. Extension of time periods established shall be subject to discretion of the director.

(g) No one agent will be selected to handle the scheduling of church services in any state facility; however, everyone is encouraged to exercise his own individual rights of worship.

9. Prohibited Items and Activities.

The following facilities or activities are specifically prohibited on the fee simple lands or waters of Cecil M. Harden Lake:

a. **Water Systems.** Systems designed for the withdrawal of water for either irrigation or domestic uses are prohibited.

b. **Landscaping.** Formal arrangements of hedges and shrubs will not be permitted except that an approved hedge may be planted and maintained on the fee boundary line. Plantings on Corps lands must be of approved materials in areas approved by the Park Manager.

c. **Flower or Vegetable Gardens.**

d. **Archaeological Sites.** The digging into, excavating, disturbing or removing of an archaeological site or artifact is prohibited.

e. **Cuts and Fills.** The alteration of the natural terrain by making cuts or fills, unless in conjunction with construction of a legal facility, is prohibited.

f. **Boat Houses.**

g. **Piers or Jetties.**

h. **Any building or structure not covered by a permit, license or lease.**

i. **Any sewage outfall or structure.**

j. **Wells or Spring Developments.**

k. **Fences.** Except for farm fences on the property line.

l. **Anchor posts or devices such as fenders and bumpers, or matting made from old tires, logs, etc.**

m. **Garbage, Debris, Refuse Dumps or Garbage Pickup Points.**

n. **Fixed or Semi-permanent Fuel Tanks or Storage Containers.**

o. **Swings, Picnic Tables, Signs, Patios, etc.**

p. **Ranging, Grazing, Watering or Allowing Livestock on Project Lands.** Except where authorized by the District Engineer or his authorized representative.

q. **Marking Buoys.**

10. Boundary Identification.

a. **Corps of Engineers Actions.** The property line between the Corps of Engineers fee simple estate land and that of the adjacent property owners has been surveyed and marked by brass monuments set in concrete at each turning point. Boundary posts are installed between each monument. Corps personnel periodically inspect and maintain the boundary line. Adjacent landowners should contact the Corps office before initiating any work near the boundary line. The Park Manager will mark the location of the government property line for landowners. This will eliminate inadvertent encroachments and answer any questions concerning land ownership.

b. **Landowner Actions.** It is the adjacent landowners' responsibility to ascertain the exact location of the boundary line prior to initiating any action which might result in a trespass upon government property. The Park Manager should be contacted for assistance in locating the line if there is any doubt as to the exact location of the boundary. The government will not be responsible for any costs incurred by adjacent landowners in delineating the boundary line.

11. Fish and Wildlife. The Corps-owned lands and water of Cecil M. Harden Lake, with the exception of the operations (dam) area and picnic area are leased to the Indiana Department of Natural Resources for management of fish and wildlife, as well as for recreational development. Hunting is limited to specific management units as designated in the IDNR Annual Wildlife Management Plan. Hunting and fishing activities are subject to all applicable State and Federal regulations governing these activities. The issuance of a permit or license to an individual does not preclude the use of the land or waters involved from use by the public for hunting and fishing activities.

**APPENDIX A**

Zoning Map

**APPENDIX B**

Project Zoning Monumentation

(WEST SIDE)

**PROTECTED AREAS**

A-01 to A-44  
A-112 to A-116  
A-170 to A-174  
A-180 to A-182  
A-284 to A-288  
A-292 to A-298  
A-308 to A-318  
A-322 to A-328  
A-358 to B-4  
B-46 to B-190  
  
B-350 to B-360  
B-466 to B-490  
B-492 to B-506  
D-16 to D-86  
D-114 upstream

**LIMITED DEVELOPMENT**

A-44 to A-112  
A-116 to A-170  
A-174 to A-180  
A-182 to A-284  
A-288 to A-292  
A-298 to A-308  
A-318 to A-322  
A-328 to A-358  
B-4 to B-46  
  
B-264 to B-296  
B-320 to B-350  
B-360 to B-466  
B-490 to B-492  
B-506 to D-16  
D-86 to D-114

**RECREATION**

B-190 to B-264  
B-296 to B-320

B-1  
(EAST SIDE)

**PROTECTED AREAS**

A-15-8 to A-35  
A-67 to A-71  
  
A-203 to A-207  
A-251 to A-259  
A-295 to A-305  
A-365 to A-377  
A-387 to A-391  
A-463 to A-471  
A-477 to B-3  
C-33 to C-43  
C-67 to C-69  
C-85 to C-197  
C-307 to C-317  
D-11 to D-13  
D-55 to D-109  
D-161 to D-175  
D-195 to D-211  
D-215 to D-227  
D-237 to D-245  
D-281 upstream

**LIMITED DEVELOPMENT**

A-35 to A-67  
A-71 to A-139  
A-165 to A-203  
A-207 to A-251  
A-259 to A-295  
A-305 to A-365  
A-377 to A-387  
A-391 to A-463  
A-471 to A-477  
B-3 to C-33  
C-43 to C-67  
C-69 to C-85  
C-197 to C-239  
C-317 to D-11  
D-13 to D-55  
D-109 to D-161  
D-175 to D-195  
D-211 to D-215  
D-227 to D-237

**RECREATION**

A-1 to A-15-8  
  
A-139 to A-165  
  
  
C-239 to C-307  
  
  
D-245 to D-281

B-2

## APPENDIX C

### Shoreline Management Plan, Cecil M. Harden Lake

#### Fee Schedule

1. **Bank Ties.** Issued annually by the Indiana Department of Natural Resources. The charge is \$10.00 annually, with duration of permit extended optionally one to three years.
2. **Private floating facilities (Boat Docks).** Issued annually by the Indiana Department of Natural Resources. The fees and charges will be established by the IDNR Commission.
3. **Vegetation Alteration Permits.** Issued by the Corps of Engineers Park Manager for periods varying from one to five years. The cost of the permit is currently \$10.00 for a five year period. Costs will be prorated when applicable. No inspection fee is charged.
4. **Licenses.** Issued by the Corps of Engineers Real Estate Division for various land use activities (steps, roads, electric lines, etc.). Charges vary, depending on the administrative costs associated with issuing the document. A copy of this schedule is available upon request from the Corps Park Manager.

C-1  
**APPENDIX D**

Shoreline Management Plan, Cecil M. Harden Lake

**Requirements for the Installation and Use of Steps or Stairs**

1. **General.** Stairways and steps may be permitted in Limited Development Areas through the issuance of a license by the Real Estate Division. These structures will be approved only where necessary to provide safe access to the shoreline. They will not be authorized for landscaping or ornamental purposes or over gentle terrain presenting no major obstacles to foot traffic. In addition, stairways and steps will not be permitted over cliffs or bluffs that are exceedingly steep.

2. **Specifications.** The basic structure should blend in with its natural environment and follow the natural line of the slope. It should not extend appreciably above its surroundings or out in to the lake.

a. **Materials.** The preferred building material is pressure-treated dimension lumber, however other materials may be considered as well. Cross ties, telephone poles and other materials containing creosote will not be allowed. Metal staircases, placed concrete steps and steps constructed of mortared block, brick or stone will not be permitted.

b. **Anchoring.** All steps or stairways will be firmly anchored in place. Trees shall not be used as an anchoring device. Handrail shall not be attached to trees.

c. **Painting.** New steps and stairways will not be painted. A clear sealer may be applied to wooden materials. Existing wooden structures that were previously painted may continue to be painted a neutral color and metal structures may be maintained with the surface treatment of the initial installation.

3. **Design.** The top of the structure will be flat with no vertical extensions which might cause injury. A minimum width of 30" is required for the inside of the step; a maximum width of 48" is allowed for the outside of the stairs including the posts and handrails.

The individual pieces used to construct the steps shall be securely connected to ensure stability. The upright intermediate posts shall be at least 4"x 4" treated lumber and buried at least 3 feet into the ground. Added stabilization by the use of concrete may be necessary. The bottom set of posts are to be at least 6"x 6" posts. Only treated lumber posts will be used. No D-1 metal posts are allowed. The steepness of the slope and the length will decide the distance between the supports. The post will be a maximum of 8 feet apart.

A minimum thickness for the horizontal stringer and steps is a 2" thick treated board. The minimum size of the risers must be 2"x 12" boards and the steps depth must be a minimum of 12".

4. **Construction.** Disturbance to the work site and the surrounding area will be kept to a minimum. Any disturbed areas surrounding the building site will be graded, seeded and mulched to protect from further erosion or rocked with riprap or natural stone. Any damage caused by vehicles, equipment, etc., needed for construction or hauling will be repaired immediately. Any trees, shrubs or other protective vegetation should not be disturbed, damaged or removed without prior approval of the Corps representative.

Other conditions or requirements may be included before the steps plan is accepted. The minimums provided may not be enough depending on the individual conditions of the site, so larger or stronger material may be required at the discretion of the Park Manager. Any unsafe conditions or degeneration in the structure must be repaired as soon as possible.

5. **Grandfathered Structures.** Steps and stairways that do not meet the guidelines in this plan will be allowed to remain for the lifetime of the current licensee or his/her spouse as long as they are maintained in a safe condition. Should the structure become unsafe or the adjoining property be sold, the

structure will be replaced with an approved structure or be removed and the area restored in accordance with the conditions in the license.

6. **Application Procedures.** The applicant shall contact the Park Manager or his representative and request a stairway or step license. The Park Manager or a Corps Ranger will inspect the proposed site to determine the feasibility of granting a license. If feasible, the applicant will be given an application form and advised of the cost of the license. The completed application, plans and specifications for the for the structure and the required fee shall be submitted to the Park Manager. The application will be forwarded to the Indiana Department of Natural Resources for concurrence. After final approval, Real Estate Division will issue the completed license document.

## APPENDIX E

### Shoreline Management Plan, Cecil M. Harden Lake

#### Electric Service on Government Lands

1. **General.** The installation of electrical service to authorized facilities on fee land is permitted under the provisions of a license issued by the Real Estate Division. Electric service will be permitted for lighting and convenience outlets adjacent to group docks. All such service shall pose no safety hazard to any individual nor interfere with any aspect of project operations. Due to the wide fluctuation of pool levels at Cecil M. Harden Lake, no electrical service is permitted on any floating facility except commercial concession marinas. All electrical service is subject to the conditions in Paragraph b., below.

2. **Conditions.** The following conditions apply to all electrical service on Government land that serve permitted or licensed facilities:

a. All electrical installations must conform to the National Electric Code as well as all state and local codes.

b. All electrical service that extends upon Government land must be inspected by a certified electrician and proof of compliance provided to the Park Manager, Cecil M. Harden Lake prior to energizing any circuits. Electrical facilities must be re-certified at each renewal of the license.

c. All electrical circuits which extend onto Government land must have a properly operating ground fault interrupter (GFI) installed above elevation 695 m.s.l. Failure to provide the GFI or to maintain such in a proper working condition may result in the license being revoked. The GFI shall be installed on a post or on the exterior of a building in plain view where it is readily accessible and shall be approximately 4 feet above the ground.

d. All new permanently installed electrical wiring extending onto Government land shall be buried to the depth required by the National Electrical Code, except that the option

of encasement in concrete is not allowed. The location of the cable or conduit shall be marked with warning tape buried at a depth of 9-12 inches above the electric wire. Underground wiring must be direct burial type (U or USE) which can be installed without conduit or TAW or equal standard wiring installed in

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non-metallic conduit. Existing aerial service will be allowed to

remain for the lifetime of the licensee or his/her spouse,

provided all other conditions are met. Upon change of ownership all aerial lines must be removed by the original licensee.

e. All permanent above ground wiring shall be installed in an approved electrical conduit. All enclosures such as breaker boxes, switch boxes and receptacles shall be weatherproof and shall be securely mounted on a treated wooden post or pole, a minimum of 4 feet above the ground.

f. Security lights shall be installed on treated wooden posts or poles not less than 12 feet above the base of the pole. The height of the light bulb shall not be lower than the calculated five year flood pool elevation of 678 m.s.l. Lights or wiring to lights shall not be installed on trees.

g. Attached at the end of this Appendix is a sketch for a typical electrical installation on Government property. This sketch is provided as a guide only, and the applicant must submit a drawing or sketch of the proposed installation along with the application as specified in Paragraph 4, above.

3. **Existing Facilities.** Immediately upon approval of this plan, all existing electrical service extending onto Corps of Engineers lands at Cecil M. Harden Lake shall be upgraded to meet the requirements noted in Paragraphs a.- f. of this appendix (except for the aerial service wiring covered by Paragraph d.). The Park Manager will require the immediate upgrade or removal of any electrical service that is not certified, does not meet code or is not safely maintained. It is the responsibility of the licensee to assure that the initial inspection or certification is accomplished and to provide proof of such to the Park Manager and to obtain recertification prior to renewal. Corps of Engineers personnel will periodically inspect to assure that facilities are properly maintained in compliance with these conditions.

4. **Application Procedures.** The applicant should contact the Park Manager or his representative to inspect the site and to obtain an application for a license. Upon approval by the Park Manager, the applicant will be advised of the cost of the license and will submit payment with the application. Should the applicant have other licenses and/or permits, they may be coordinated into a single outgrant with the fees adjusted accordingly. The Real Estate Division will prepare the license document for delivery to the licensee. The Park Manager will inspect the initial installation to determine compliance with the license conditions. E-2

## APPENDIX F

Shoreline Management Plan, Cecil M. Harden Lake

### Erosion Control Devices

1. **General.** Erosion control devices may be authorized by a Real Estate License or Shoreline Use Permit in Limited Development Areas where bank stabilization is needed to prevent the loss of shoreline due to wave and wake action. These devices are subject to the provision of Section 404 of the Clean Water Act when fill material or stone protection will be placed below elevation 662 m.s.l. Due to the mutual benefit derived from these structures, no fee will be charge for shoreline erosion protection licenses.

2. **Conditions.** Structures may be riprap, stone filled baskets (gabions), seawalls, or vegetative cover in Limited Development Areas. In Protected Shoreline Areas only riprap and vegetative controls may be used. A Real Estate License or Shoreline Use Permit is required prior to initiating construction activities. A written description of the access route, placement plan, and safety considerations is required before the permit plan will be accepted. Any unsafe conditions will cause the suspension or denial of the operation or permit.

3. **Design Guidance for the Placement of Riprap.**

a. The materials that may be used include riprap, gabions or natural stone. Broken asphalt material, concrete and random

fill are prohibited. All material will be free from toxic pollutants.

b. The riprap structure should blend in with its natural environment and follow the natural curves of the shoreline. It may extend above normal pool level (662) to cover all the eroded slope. Stone shall be placed on a slope no steeper than a 1.0 vertical to 1.5 horizontal. Some cutting, trenching or grading of the slope may be required to provide an adequate base for the rock. This will prevent undercutting or slippage of the riprap. When any excavated material is used to shape the bank, it shall be compacted by equipment traveling over the area. Equipment shall not pass over in-place stone.

c. All trees in the bank protection work area shall be removed. Trees at the edge of the bank that are leaning, appear unstable, or located where failure of the tree could adversely impact the bank protection shall be cut down. The banks must be cleared of all stumps, logs and debris before placing stone.

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d. A maximum of one cubic yard of riprap per running foot of shoreline and ten cubic yards of miscellaneous fill per project may be placed on the eroded areas. A maximum length of 500 feet should not be exceeded without additional permits. The layer of the stone to be placed on the bank slope shall be a minimum of 18 inches thick.

f. All construction work will be done when pool level is down from normal summer pool (662 m.s.l.). The lake level is drawn down 22' in elevation from summer water level during October to May. Work will be discontinued when, for whatever reason, pool levels rise to inundate work area.

g. Disturbance of the surrounding area will be kept to a minimum. Disturbed areas will be graded and reseeded or riprapped to prevent further erosion. Any damage caused by vehicles or equipment during construction will be repaired immediately. Trees, shrubs and other types of protective vegetation adjacent to the work area may not be disturbed, damaged or removed without prior approval of the Corps representative.

#### 4. Design Guidance for Seawalls.

a. The structure may be constructed from treated lumber or untreated materials such as cypress or redwood. Cross ties, telephone poles and lumber treated with creosote are prohibited.

b. The structure should blend in with its natural environment and follow the natural curves of the shoreline. It should not extend appreciably above or below its surroundings or out in to the lake. In most cases seawalls will be constructed to a maximum of 2 to 3 feet above and 2 to 3 feet below the normal summer pool level. The seawall must extend a minimum length of 20 feet along the shoreline. The ends of the seawall will be capped or joined into the natural ground with either extensions of the structure or riprap.

c. The top of the structure must be flat with no vertical or horizontal extensions which might cause injury. A walkway with a maximum width of 48" may be built along the top of the seawall.

d. The upright supports should be at least 6" x 6" treated posts buried at least 3 feet into the ground. Added stabilization by the use of concrete may also be necessary. Posts shall generally be placed 4 feet apart. A minimum thickness for the horizontal portion of the seawall is a 2" thick  
F-2  
treated board. Larger material may be required at the discretion of the Park Manager.

e. Deadmen devices extending back into the existing ground will be used to help stabilize and hold the seawall upright. The number of these devices necessary will be site specific, but a minimum of three will be required. These devices will be attached securely to the seawall posts. Treated lumber posts, metal rods set in concrete, or screw-in metal anchors may be used as deadmen. These deadmen should be placed at least 4 feet behind the seawall posts. Sometimes a secondary wall may be constructed as an integral part of the seawall structure to prevent additional sloughing of the eroded slope. This secondary wall will also require deadmen anchors for stability.

f. The disturbed area behind the structure must be filled by gravel, natural stone, or riprap. Other areas around the structure, such as in front of seawall may require placement of stone depending on the individual site. The amount of riprap (or miscellaneous fill from the lake) that may be placed within

a licensed seawall will be determined by the Park Manager after reviewing the structure's design. Riprap will be at least 6" to 12" in size.

g. All construction work on seawalls should be done when the pool level is between elevations of 657 and 640 m.s.l. Work may occur at other times of the year when water levels allow.

h. Disturbance of the bank and the surrounding area outside the work site will be kept to a minimum. Disturbed areas will be graded and seeded or riprapped to prevent erosion. Any damage caused by vehicles or equipment during construction will be repaired immediately.

5. **Vegetative Controls.** The use of vegetation or plantings, such as willow bundles may be approved for erosion control. Any such proposal should be submitted to the Park Manager for evaluation and approval.

## APPENDIX G

### Shoreline Management Plan, Cecil M. Harden Lake

#### Foot Paths and Foot Bridges

1. **General.** Foot paths and foot bridges may be authorized under the provisions of a license to adjoining property owners in an area that is zoned Limited Development. The use of motorized conveyances on licensed foot paths may be authorized for landowners with disabilities as outlined below.
2. **Foot Paths.** Foot paths shall not exceed 5 feet in width and may be paved with creek gravel, crushed stone, tan bark, wood chips, stepping stones or other readily removable material. Asphalt or concrete will not be used for foot path surfacing. Landscaping timbers may be used to edge the path and confine the paving material, however such timbers will be securely anchored to prevent them from floating away during periods of inundation. No significant alteration of the terrain (over 6 inch cut and fill) will be permitted for a foot path. The slope of the path should be held to a minimum through the use of a meandering design to reduce erosion damage.
3. **Foot Bridges.** Foot bridges may be authorized where necessary to traverse ditches or ravines that impede access to the shoreline or a dock. Bridges will not be authorized for ornamental or landscaping purposes. Bridges will be constructed of pressure treated wood. Cross ties, telephone poles and creosote-treated materials may not be used. Bridges will not be painted but a clear sealer may be applied. Structures will be firmly anchored to prevent flotation. Trees will not be used for anchoring devices nor as any part of the structure.
4. **Use of Motorized Carts.**
  - a. Eligibility. Adjacent landowners (or members of their household) who have a demonstrable permanent disability which precludes normal walking will be given permission to use a motorized cart on government property for access to the shoreline. A doctor's certificate may be required in cases where the disability is not obvious. The Park Manager may request such a certificate before granting permission.
  - b. Authorized Use. Only the disabled individual will be

authorized to drive or be a passenger in a motorized conveyance operated for the purpose of accessing the shoreline. The conveyance may be a golf cart, riding mower or a similar low-speed vehicle. Three- and four-wheel all terrain vehicles

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(ATV's) and motorcycles will not be allowed. Any violation of this condition will be considered a violation of Part 327.2c of Title 36 CFR and handled as such.

5. **Application Procedures.** The applicant should contact the Park Manager and request the desired facility. The Park Manager (or his designated representative) will inspect the site to verify the need for the facility and its feasibility. If approved, the applicant will be required to complete an application and provide a set of plans and specifications. Following the concurrence of the Indiana Department of Natural Resources and payment of the required fee, the application will be forwarded to the Real Estate Division for issuance of a license.

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**APPENDIX H**

Shoreline Management Plan, Cecil M. Harden Lake

**Vegetation Alteration Permits**

1. **General.** Vegetation Alteration permits will be issued only to individuals owning or renting property abutting Corps of Engineers' fee land that is designated as a Limited Development Area, subject to the conditions contained in this Appendix. Vegetation alteration permits will be issued for the purpose of improving the access to the lakeshore for the adjacent property owners. The alteration of vegetation to solely provide a view of the lake or a dock, to develop a lawn type appearance, or to portray the appearance of an extension of private ownership onto Corps of Engineers land will not be permitted. Areas where extensive vegetation alteration has occurred in the past will be restored by a gradual reduction in the amount of mowing/alteration allowed. Permits will not be issued in areas where, in the opinion of the Park Manager, significant adverse environmental impact will result due to the removal of vegetation. Permits that were issued prior to the effective date of this plan will be grandfathered as to size and configuration for the lifetime of the permit holder and his/her spouse.

2. **Size and Configuration.**

The size and configuration of the area allowed to be mowed will depend on whether or not the adjacent shoreline has been protected from erosion.

a. Protected from Erosion. If the shoreline is protected from erosion, vegetation alteration permits may be issued. The width of the mowing area shall be determined by the Park Manager

on a case-by-case basis. Under no circumstances will the width of the mowing area exceed 150 feet. This permitted configuration will be allowed to all the subsequent property owners as long as the shoreline protection is viable and all other permit requirements are met.

b. Unprotected from Erosion. The area in which vegetation alteration may be performed shall consist of an area that is a maximum of 50 feet wide and a maximum of 20 feet in depth from shoreline. A 10 foot wide (maximum) mowed strip can connect this area to the government boundary line. The 10 foot wide strip should be meandering to prevent rapid runoff and accelerated erosion. A typical configuration is shown on the attached sketch. No increase in the current size of the mowed area is allowed if the present permit exceeds new guidelines. Upon sale

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of the adjacent property, the area in which vegetation alteration is permitted will be reduced to the new guidelines.

3. **Scope.** Vegetation alteration may consist of removing selected trees or underbrush, trimming, pruning, mowing and driftwood removal. Prior to the removal of any vegetation, the permittee shall meet with a Corps representative who will outline the limits of the permit area and who will designate certain trees or stems that must be left in the permit area. No tree or shrub with a base diameter of 3" or larger at 6" above the ground will be cut. Dead trees may be removed with the issuance of a separate permit. A stocking density of one tree for each ten foot square will be maintained. In no case will clear cutting be allowed.

a. Mowing. Vegetation within the permit area may be controlled by mowing with small riding mowers, push mowers or weed cutters using string cutting heads. Agricultural or industrial tractors or mowers shall not be used. Permittees shall exercise care to protect the vegetation designated to remain.

b. Pruning and Trimming. Trees within the permit area that are larger than three inches in diameter breast high (DBH) may be trimmed or pruned to a height of seven feet above the ground or one-half the total tree height, whichever is less. DBH is defined as diameter breast height approximately 4-1/2 feet above ground level.

c. Underbrushing. Permittees may elect to selectively remove certain undesirable vegetation within the permit area such as poison ivy, oak, and sumac and vines, briar, and thistles in lieu of mowing.

d. Removal of Driftwood and Floating Debris. Driftwood, downed timber and other floating debris within the permit area can be removed by the authority of the Vegetation Alteration permit. The permit area for drift removal will be for a width of shoreline not greater than that of the adjoining lot. Disposal shall be by burning as outlined in Paragraph 4. below, or by removal and disposal off site.

e. Herbicides. No herbicides may be used for vegetation control on government property.

4. **Burning.** All driftwood, wooden debris, treetops, etc., may be burned unless prohibited by State or local laws and regulations. All burning shall be confined to the area on the lake bottom between winter pool (640 m.s.l.) and summer pool (662

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m.s.l.) or to an area designated by the Park Manager or his representative. All applicable burning and clean air codes, laws, rules and regulations shall be adhered to. In the event that a burning permit is required, it shall be incumbent upon the permittee to obtain the permit and to present it to authorized Corps personnel if requested. In the event that burning is prohibited or undesirable the debris may be removed and disposed of off government property.

5. **Delineation of Boundary Line.** The holder of each vegetation alteration permit shall delineate the boundary between Corps of Engineers lands and private property in a clear but unobtrusive manner. This provision applies to new permits as well as grandfathered permits that are covered in Paragraph 2. This delineation may include, but is not limited to, boundary plantings, fencing, bird houses, etc. The delineation will be accomplished at no cost to the government. The permittee may submit an alternate method of delineating the boundary line to the Park Manager for approval, however any such alternate method must not impede the inspection of the boundary by Corps personnel. The permittee shall not move or otherwise disturb any monument or survey marker. A permit tag provided by the Corps of Engineers shall be posted at the site facing the water.

6. **Term of Permits.** Beginning in Calendar Year 1995, vegetation alteration permits have been issued for periods ranging from one to five years. The terms of the permits have been varied to obtain staggered expiration dates. At the next renewal after 1995, all permits will be issued for a five year period. Expiration dates will be on 31 December of the appropriate calendar year. In certain instances where a permittee holds other permits and/or licenses the vegetation alteration permit may be consolidated into a single outgrant with the other instruments with a common expiration date. The Park Manager may issue one time vegetation alteration permits for such activities as removing a hazardous dead tree or removal of driftwood. The one time permits will be for short duration (1 to 30 days) and no fee will be charged.

7. **Fees.** A fee is charged for vegetation alteration permits to help defray the administrative costs incurred by the Corps of Engineers. The amount of this fee is found in Appendix C of the Shoreline Management Plan. These fees are applicable nationwide and are subject to periodic review and adjustment. Payment of the appropriate fee is required by check, money order, or cashiers check made payable to "FAO USAED, Ohio River Division" prior to issuance of the permit. No cash will be accepted.

8. **Application Procedures.** First-time vegetation alteration  
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permit applicants must contact the Park Manager or his representative to obtain a permit. An on-site inspection by a Corps representative and the applicant will be conducted at which time all conditions of the permit will be explained and the permit area delineated. The representative will provide an application (Eng Form 4264-R) and advise the applicant of the required fee. Upon receipt of the required fee and approval by the Park Manager, the permit will be issued to the applicant. An existing permit may be renewed by mail, provided that there is no change in the permit. Any requested change will require an

on-site meeting to redefine the scope of the permit. The permit holder will be notified 60 days prior to the expiration date of their permit and advised to renew the permit. A permit that is not renewed within 60 days of the expiration date will be null and void and renewal after this date will be subject to new guidelines as to size and configuration.

9. **Revocation of a Vegetation Alteration Permit.** The Park Manager may revoke any vegetation alteration permit in instances where the permittee has exceeded the authorized scope of the permit. The permittee may be required to restore the area to a condition satisfactory to the Park Manager. The Park Manager may also revoke vegetation permits in instances where significant adverse environmental impact is occurring due to the actions of the permittee that are within the scope of the permit.

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**APPENDIX I**

Shoreline Management Plan, Cecil M. Harden Lake

**Group Boat Dock Specifications**

DIVISION OF RESERVOIR MANAGEMENT  
DEPARTMENT OF NATURAL RESOURCES  
402 WEST WASHINGTON STREET, ROOM 282  
INDIANAPOLIS INDIANA 46204

CONSTRUCTION SPECIFICATIONS  
GROUP BOAT DOCK  
On Cecil M. Harden Lake

1. **Construction.** In wood construction, all connections shall be secured with sheet metal, steel plates, metal straps, or treated plywood gussets to resist movement that would tend to dismantle the structure. All columns and walls shall be adequately braced to resist wind and snow loads. Roofs shall be securely fastened to the superstructure to resist wind uplift. The structure should have sufficient flexibility whereby wave action will not damage the structural or roof system.

a. Head Dock Unit: Minimum 4 feet wide  
Sides and ends, minimum 2" x 10"  
Deck, minimum 2" x 4"

b. Finger Dock Unit: Minimum 3 feet wide  
Sides and ends, minimum 2" x 10"  
Deck, minimum 2" x 4"

c. Walkway Unit: Minimum 3 feet wide  
Sides and ends, minimum 2" x 10"  
Deck, minimum 2" x 4"

d. All wood components shall be preservative treated with a Copper Chromated Arsenic solution in accordance with the American Wood Preserves Institute LP-22 specification.

2. **Flotation.**

a. Flotation unit shall consist of a polyethylene cased unit or system. Flotation units shall consist of high density polyethylene casing filled with expanded polystyrene. The average case thickness shall not be less than .100" with 0.70" allowable in small areas of large radius outside corners, and 0.050" available in small areas of small radius inside corners. I-1  
Expanded polystyrene shall have an in place density of 1.0 lb./cu. ft. to 2.3 lb./cu. ft.

b. Flotation for all new docks shall be of materials which will not become waterlogged, are not subject to damage by animals, will not sink or contaminate the water if punctured, shall contain fire retardant properties. No metal-covered or injected drum flotation will be allowed. 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 will be replaced with approved flotation. Non compliance may be cause for the forfeiture of permit.

c. Flotation shall be adequate to maintain a stable and safe facility. Slips and walkways shall have adequate flotation to assure that at least 40% of the flotation will be above the water line under all conditions at all times.

3. **Anchorage.** An anchorage system shall provide secure mooring of the structure, taking into consideration the water depth, and exposure to wave action and windloads. The anchorage shall provide safety against extreme water level fluctuations and wave action. An anchorage system such as a dead man or ground stakes shall be installed flush with the existing grade. Anchor cables or other securing devices shall not be attached to trees, stumps, or power poles. All anchor lines will be installed in a manner that will not create a tripping hazard, or impede boat operation.

4. **Walkways.**

a. Walkways shall be a minimum of four feet in width, and will have properly installed handrails. Walkways between slips shall be a minimum width of four feet.

b. Walkways shall be structurally sound. Walkway surfaces shall be constructed of 2-inch lumber, or 1 3/4-inch concrete pans or similar material as a minimum. The walkway shall be free from excessive spring, deflection, or lateral movement, and be adequately supported with flotation where necessary so as to provide safe access.

c. Walkways shall be kept free from mud, ice, snow, grease, or any other materials, obstructions, or tripping hazards which would render them unsafe to the person using them. Access walkways shall have even, non-skid surfaces. Carpeting shall not be permitted to provide a non-skid surface.

d. Walkways shall be above the water at all times and shall be adequately secured to other walkways or other appropriate I-2 floating structures.

e. Access walkways from shore to dock should be constructed in such a manner as to allow disabled persons easy access.

5. **Handrails.**

a. Handrails shall be provided on all stairways and walkways.

b. Handrails shall be 42 inches in height, with an intermediate rail approximately 22 inches in height.

c. Handrails must be capable of withstanding loads of 200 pounds applied in any direction at any point with a minimum of deflection. They must be structurally sound, maintained at any point with a minimum

of deflection. They must be structurally sound, maintained in a state of good repair, and a minimum size of 2 inch by 4 inch, or equivalent strength material. Posts for handrails shall be spaced on no more than 8 foot centers. Handrails shall be smooth-surfaced with no protruding uprights posts.

6. **Fire Protection.**

a. A fully charged A-B-C dry chemical fire extinguisher of not less than 10 pounds in capacity shall be located within a 50-foot radius of travel on every dock.

b. All fire extinguishers must be inspected by the owner on a monthly basis to insure that they are fully charged and in operating condition.

c. Immediate notification of the nearest fire department in the event of fires shall be an established operating procedure. Emergency numbers shall be posted on a conspicuous place near each telephone.

d. Combustible waste material and residues shall be kept to a minimum, stored in covered metal receptacles, and disposed of daily.

7. **Housekeeping and Health.**

a. All walkways and accessways shall be kept free of materials, supplies, and obstructions at all times so as not to present a safety hazard.

b. Ground areas around docks shall be kept free of weed, I-3 trash, or unnecessary combustible materials.

c. Loose or rotten boards shall be replaced or repaired.

d. The entire dock area shall be kept neat and clean with equipment properly stored so that it does not pose a safety hazard.

e. The authorized dock representative will take reasonable care to insure that all sewage generated by dock members is properly stored and/or disposed of.

8. **Life Saving and First Aid.**

a. An easily accessible, throw-type lifesaving device, with rope, will be located in a highly visible location within a 200-foot radius of travel on every dock.

b. A minimum of one first aid kit shall be available to each dock.

9. **Evaluations.** The Department of Natural Resources Representative will conduct independent compliance evaluations of all docks at least semi-annually to ensure that the provisions of the regulation are being properly adhered to. Upon discovery of any condition that presents an imminent and dangerous threat to the safety of the dock user, the Department's Compliance Inspector shall have full authority and may require that any part or all of the premises be closed until such condition is corrected and the danger has been eliminated. The Property Manager or personnel under his supervision will conduct interim inspections in connection with day-to-day surveillance and will likewise take immediate corrective action if the health and/or safety of the area are involve.

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