

SECTION XII - OPERATIONAL MANAGEMENT PLAN

12.01 INTRODUCTION

The Operational Management Plan (OMP), under separate cover, details implementation of several program areas only conceptually addressed in the Master Plan: recreation, shoreline management, forest management, fire management, fish and wildlife management and safety.

Master Plans and Operational Management Plans are developed and implemented with a view to their working in tandem. The Master Plan covers all resources of the project including, but not limited to, fish and wildlife, vegetation, cultural, aesthetic, interpretive, recreational, mineral, commercial and out-granted lands, easements and project waters (submerged lands held in fee). This Master Plan focuses on three primary components:

- Regional and ecosystem needs
- Project resource capabilities and suitabilities
- Expressed public interests and desires

The Master Plan ensures that environmental mandates and considerations are incorporated and that the economy and quality shall be given equal attention in the development of public facilities and support infrastructure. Usually, every ten years, the Master Plan is reviewed and updated and can be supplemented at any time when it becomes appropriate or necessary to do so. Based on an approved Master Plan, the Mark Twain Lake Project develops and implements an Operational Management Plan (OMP) to achieve the objectives stated in the Master Plan.

The Master Plan serves as the planning document that establishes the authority to act and the OMP is the implementation or action document that lays out the actual work, task schedules, costs and funding strategies for realization of the goals and direction set forth in the Master Plan.

Within the OMP, objectives and implementation strategies are established for each major area of emphasis: natural resource management, and park and recreation management.

The OMP, under separate cover, details objectives and strategies to implement programs based on Master Plan resource use objectives, and plans within the environmental stewardship, recreation and flood damage reduction business areas conceptually addressed in the Master Plan. Visitor assistance, public access, environmental compliance, interpretation and outreach, recreation safety, shoreline management, habitat management, fire protection

and fish and wildlife management, endangered species protection and facilities/infrastructure operations and maintenance are some of the major programs addressed in the OMP. During development or revision of OMPs, emphasis is given to achieving environmental mandates and other ecological imperatives of a national, regional or ecosystem nature. Emphasis is also given to achieving economy in planning, designing, constructing and managing natural and recreational resources, facilities/infrastructure and other services. Concepts are refined into actual work items with schedules and cost estimates for completion.

OMP management strategies must be consistent with authorized project purposes and approved resource use objectives and land use classifications established in the project Master Plan.

The OMP is dynamic in nature and includes funding, staffing and schedules required to implement management activities and strategies for the entire project. Approval for the OMP and all subsequent updates rests with the District Commander. Portions of the OMP (funding, staffing, equipment needs) are updated each year resulting in a set of work plans that are approved annually by the District Commander. All approved work is based on consistency with the OMP and is contingent on the availability of funds.

For outgranted areas, the OMP will include the outgrantees' management plans for the area and information on how the outgranted areas management supports the overall management objectives of the project. Cooperation and input from partners supporting management objectives and interested customers, organizations and the general public is encouraged during formulation and updating of the OMP.

Site-specific resource management recommendations are included in the OMP. The OMP divides the public lands surrounding the lake into management units called compartments. The compartments were selected using size, topography, land use classification, and access as location criteria. Management objectives are outlined for each compartment within the OMP. Development of the OMP is a concerted effort between Project and District personnel.

Key topics addressed under the main business areas (Environmental Stewardship Management, Recreation Management and Flood Damage Reduction) are listed as follows:

Environmental Stewardship

- _ Long Term Objectives of Resource Management
- _ Compartment Descriptions
- _ Topography (slope, aspect, general soil type, etc.)
- _ Aquatic Resources (type, temperature, turbidity, etc.)

- _Vegetation (species, size, density, etc.)
- _Fish and Wildlife (species)
- _Special Considerations or Problems (protected or rare/unique habitat, rare and endangered species, national emphasis programs (e.g., Watchable Wildlife North American Waterfowl Management Program and Neotropical Migratory Birds, etc.), pollution, forest fire control)
- _Management Objectives (for each compartment)
- _Implementation Plan (for each compartment)
- _Management Techniques (to meet objectives)
- _Five-Year Schedule (of management techniques to be applied)
- _Annual Staffing and Equipment needs
- _Annual Costs
- _Coordination (with other elements/agencies/the public)

Recreation Management

- _Safety (employee, contractor, and visitor)
- _Security
- _Visitor Assistance
- _Shoreline Management
- _Private Exclusive Use (existing approved regional plan may be inserted as is)
- _Outgrants
- _Maintenance
- _Recreation Use Fee Program
- _Interpretation
- _Cultural Resources
- _Project Sign Management Plan
- _Special Programs
- _Cooperation (with other agencies and/or special interest groups)
- _Five-Year Program (for park management)
- _Priority List (of annual programs with staffing and funding requirements)

Flood Damage Reduction

- _Develop inventories and prescriptions for operation and maintenance of all federally owned and operated flood damage reduction infrastructure located on public lands and waters.

12.02 RECREATION

a. Scope

A detailed discussion of project recreation management is contained in the OMP. The guidelines and policies set forth in this section are the basis for preparation and implementation of the OMP relative to efficient recreation management at the lake. The OMP will be updated after approval of the Master Plan.

b. Goal

The goal of the lake recreation program is the efficient operation and maintenance of lake facilities to maximize public benefits and implement authorized project purposes. This is accomplished through the effective organization and utilization of manpower and materials.

c. Purpose

In the administration of the lake, management objectives contributing to lake efficiency and requiring the allocation of manpower and funding include:

(1) The provision of a wide range of outdoor recreation opportunities and facilities in a relatively natural setting.

(2) Reduction in conflict of use through activity and area zoning. The administration of lake lands as designated in paragraph 8-01, and on the Land Use Classification Map. (see PLATE 2).

(3) The provision for visitor information regarding natural resources and ecologic and cultural areas along with any other outstanding features.

(4) The development of policies which provide for maximum sustained public use without undue deterioration of lake resources.

(5) The provision of additional recreational opportunities through the issuance of leases to private individuals, state governments and other political subdivisions for concession and public park development.

(6) The maintenance of facilities and grounds to a high standard.

(7) The provision of a safe and rewarding outdoor recreation experience to the visiting public.

(8) The provision of populations of both game and non-game species so that all interest groups using lake facilities will have the opportunity of receiving

benefits from wildlife. SECTION VII includes, in greater detail, the goals and objectives of the Fish and Wildlife Management Program.

d. Staffing

The total staff for Operations and Maintenance assigned to Mark Twain Lake and Clarence Cannon Power Plant is 28.4 full-time-equivalents (FTE), including office, secretarial maintenance and management. An additional 8.0 FTE of STEP/SCEP is allocated per year.

The operations manager and staff are responsible for all aspects of operations, maintenance and administration of a water resource development project and its natural and cultural resources. The professional staff is responsible for natural resource management, outdoor recreation, administering service contracts, health and safety of visitors, pollution abatement, visitor assistance, boundary surveys and marking, working with state and local agencies and informing the public of Corps activities. Maintenance workers and contract personnel are responsible for maintaining and servicing the hydraulic structures, replacement of sand at beaches, realignment of protective buoys, erosion repair, seeding, fertilizing, tree and shrubbery planting, maintenance of trails, painting, repair of facilities (benches, tables and signs), road maintenance and repair, maintenance of comfort stations, shower buildings, miscellaneous facilities, and preventive maintenance particularly on all buildings.

12.03 FOREST MANAGEMENT

a. Scope

The policies and guidelines established in this section are the basis for the management of forested lands at Mark Twain Lake.

b. Policy

Forest resources at Mark Twain Lake will be managed in accordance with Public Law 86-717, the Forest Cover Act. Project lands “shall be developed and maintained so as to encourage, promote, and assure fully adequate and dependable future resources of readily available timber through sustained yield programs, reforestation, and areas for conservation, recreation, and other beneficial uses, provided that such development and management shall be accomplished to the extent practicable and compatible with other uses of the project.” The Project also “shall provide for the protection and development of forest or other vegetative cover and the establishment and maintenance of other conservation measures...so as to yield the maximum benefit and otherwise improve such areas”.

c. Plan Preparation

The OMP contains specific information regarding the forest management program in the Natural Resources Section. It is prepared through a coordinated District effort. The plan divides the land into workable compartments and provides a treatment prescription for each compartment in compliance with its land use classification.

d. Forest Management Objectives

Forest management will be provided wherever opportunities exist to protect and/or improve vegetative conditions for timber, fish, wildlife, soil, recreation, scenic value, and water quality. Sustained yield programs should provide for overall diversity in age and species composition of trees. The forest resources will also require protection from insects, disease, wildfire, and overuse.

The extent of management practices is largely dependent upon land use classification. General management considerations based on land use classification are described below:

1. **PROJECT OPERATIONS** -This classification includes those lands required for the dam structure, operations center, office, maintenance compound, and other areas that are used solely for project operations.

2. **RECREATION** - Lands developed for intensive recreational activities by the visiting public, including developed recreation areas and areas for concession, resort, and quasi-public development. The nature of these areas require intensive management practices, including landscaping with appropriate native and non-native species that have adapted to the area, and are maintained by the application of current arboricultural practices.

3. **MITIGATION** - Land acquired or designated specifically for mitigation. These lands are classified under Wildlife Management General.

4. **ENVIRONMENTAL SENSITIVE AREAS** - Areas where scientific, ecological, cultural, or aesthetic features have been identified (Environmental Sensitive Areas are designated as separate compartments). Normally limited or no development of public use is contemplated on land in this classification. Management of these areas is as follows: no forest management activities will be undertaken in these areas, except for the control of disease outbreaks and for wildfire suppression activities; timber removal will be made only with the purpose of providing access or for construction; trails will be allowed between "set aside" natural areas but no development will be allowed within the actual area; areas will be allowed to develop naturally without any outside influence. Any newly qualified sites discovered throughout the years will be recommended for designation through the Master Plan process. An attempt will be made to

designate a significant acreage to this allocation where the quality and uniqueness are great enough to dictate this designation.

5. MULTIPLE RESOURCE MANAGEMENT - Lands managed for one or more of, but not limited to, these activities to the extent that they are compatible with the primary allocation(s):

a) Recreation (Low Density) - Low-density recreation activities such as hiking, primitive camping, wildlife observation, hunting, or similar low-density recreational activities. Timber management activities in low-density recreation areas shall include: limited harvests, timber stand improvement activities, and forest manipulations to maximize wildlife habitat.

b) Wildlife Management General - Forest management activities for these areas shall provide for the protection and development of forest and vegetative cover. Management will be accomplished using practices such as artificial and natural regeneration, timber stand improvement (TSI), harvesting and prescribed burning. These areas are also managed to develop diverse habitat for both game and non-game species. Forest management practices will take full consideration of all wildlife habitat concerns, and will complement all natural resource management goals. Public use of these lands is limited therefore; forest management practices may take a more intensive scope.

c) Inactive and/or Future Recreation Areas - Recreation areas planned for the future or that have been temporarily closed. These lands will be classified as multiple resource management in the interim. Depending on the diversity of recreation planned (low-high), these lands will be managed accordingly.

6. FLOWAGE EASMENT LANDS - All lands for which the U.S. Army Corps of Engineers holds an easement interest but no fee title. The easement interest is the right to periodically flood these lands to fulfill the project flood control benefits. These lands begin at elevation 620 feet NGVD and terminate at 642 feet NGVD. These lands are not in fee title ownership by the Corps of Engineers, and therefore are not eligible for management activities.

12.04 FISH AND WILDLIFE MANAGEMENT

a. Scope

The scope of this section is to establish guidelines for the management of the habitat and fish and wildlife populations currently present within the limits of the authorized project purposes.

b. Policy

The program objective is to provide diverse vegetative and aquatic habitat to be used by wildlife and fisheries populations of the Mark Twain Lake region. Management objectives shall be consistent with the needs of the public

and the objectives of the project. Natural resource management shall comply with guidance supplied in ER 1130-2-540 and EP 1130-2-540. Guidance pertaining to fisheries management will also be sought from Executive Order 12962 of June 7, 1995. The OMP shall document management strategies to achieve these objectives. Several purposes are included in the natural resource section of the OMP:

1. Evaluate current fish and wildlife habitats
2. Prescribe a course of action to maximize fish and wildlife populations commensurate with the carrying capacity of the resources available in the area.
3. Insure protection of resources in compliance with applicable environmental laws.
4. Evaluate success of implemented fish and wildlife management strategies, and provide for modification where necessary.
5. Maintain cooperation between the Corps of Engineers and other federal and state agencies in concert with the resource management programs.

Non-consumptive uses of wildlife, such as hiking and photography will receive equal consideration with consumptive uses, such as hunting and fishing. Vegetative and water manipulation, and augmentation of food resources are the principal methods of fish and wildlife management, and are consistent with other authorized purposes and physical limitations of Mark Twain Lake. Lake operation procedures are continually evaluated to support this program. Coordination is maintained with the MDC to establish criteria in support of favorable water elevations for fish populations.

c. Wildlife Management Objectives

The objectives of the wildlife management program will be to provide diverse vegetative habitat to accommodate game and non-game species of the Mark Twain Lake Area. Management strategies will be in accordance with the authorized project purposes. The methodologies used will consider public use demands, environmental conditions, regional need and applicable state and federal laws. They will be implemented with accepted management techniques. A more exhaustive and detailed explanation of the resource management practices used is contained in the compartment prescriptions of the OMP.

Portions of several compartments are difficult to access, with private ownership being the only means of access other than by foot. Acquisition of road easements approved in Supplement No. 6 to Design Memorandum No. 9 will simplify access and facilitate the performance of habitat management, wildfire suppression activities, and boundary inspection and maintenance.

(1) Corps of Engineers Wildlife Management Program. Wildlife management objectives at Mark Twain Lake will be based on a stewardship concept of conservation and protection of natural resources for present and future

generations. It focuses on sustaining or enhancing ecosystems in order to maximize their potential. The application of the stewardship concept within ecosystems and their component biological communities is described in the following:

(a) Ecosystem Management An ecosystem is a dynamic community of biological organisms and the physical environment in which they interact. Ecosystem management at Mark Twain Lake shall be pro-active, goal-driven approach to sustaining and enhancing ecosystems and their values. Communities will be managed to promote regional environmental values occurring on project lands toward sustaining and enhancing ecosystems in which the project lands and waters occur. Such ecosystems and biological communities are identified in resource objectives and/or land use classifications contained in the MP and the OMP.

(b) Forest and Woodland Management Forest management at Mark Twain Lake will be managed in accordance with Public Law 86-717, Forest Cover Act, which provides a statutory mandate for multiple use forest management, or other vegetative management, on project lands and waters. Forest management will be applied to develop, maintain, protect, and/or improve vegetative conditions for timber, fish, wildlife, soils, recreation, water quality, or other beneficial uses. The OMP shall provide for sustainable yield forest management, reforestation activities, site specific prescriptions, implementation of improvement practices, recreation, and resource conservation compatible with other purposes of project lands.

(c) Wildlife Management The Corps of Engineers will conduct wildlife management activities at Mark Twain Lake, which seek to maintain or enhance wildlife populations, game or non-game species, through management of vegetative communities. Management objectives will be developed in a manner consistent with the guidance furnished in Section 2 of the Forest Cover Act, Public Law 86-717. Management objectives will be proactive and aggressive, seeking to provide positive impact and diversification on all applicable public lands. Special status wildlife species and wildlife species specified by laws and national focus plans/agreements, such as Endangered Species Act and the North American Waterfowl Plan will receive special emphasis in the OMP.

(d) Grassland or Openland Management The Corps of Engineers will provide for the management of grasslands and openlands at Mark Twain Lake, to include vegetative cover such as cool season/forb grasslands, warm season grasslands, and open lands in different stages of succession. Proactive and beneficial management techniques will be implemented whenever the opportunity exists to promote native grasslands or prairies, and/or improve vegetative conditions for such reasons as soil conservation, watershed protection, or fish and wildlife management objectives. Prescribed burning, mechanical manipulation, agricultural activities, and herbicide application are some tools that may be applied in the manipulation of vegetative communities.

(e) Wetlands Management The Corps of Engineers will provide for the management and enhancement of wetlands and other moist soil management

units at Mark Twain Lake. Wetlands are those areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. On hydric soils and bottomland areas, consideration and management emphasis should be given to restoring and operating wetlands for wetland plant associations. The development and management of wetlands shall integrate the needs of fish and wildlife and support national programs and efforts associated with the Endangered Species Act and North American Waterfowl Management Plan.

(f) Soils Management All land management prescriptions developed for use at Mark Twain Lake will integrate the limitations and favorable characteristics associated with specific soil types and land use capabilities. Proactive and comprehensive prescriptions will be implemented for soil management, including erosion control, sediment management, and bank stabilization.

(2) Corps of Engineers Waterfowl Refuge An area comprising of 1,325 acres of water and 1,700 acres of land at a pool elevation of 606.0 NGVD is maintained as a waterfowl refuge on the Middle Fork and Elk Fork branches of Mark Twain Lake. The area will be closed annually to all waterfowl hunting and boat traffic between the dates of 15 October and 31 December, correlating with the established Missouri duck season. Management objectives will meet the needs for migratory waterfowl in concern with resting, cover, and feeding habitats. This area will be available for other consumptive and non-consumptive purposes, other than waterfowl hunting.

(3) Endangered or Threatened Species Several species of animals that appear on the Federal Endangered or Threatened Species list are known to occur or may potentially occur in Mark Twain Lake area including the Bald Eagle, (*Haliaeetus leucocephalus*), the Grey Bat, (*Myotis griseseens*), the Indiana Bat (*Myotis sodalis*), and the Henslow's Sparrow (*Ammodramus henslowii*). Management objectives will place emphasis on the management and protection on these special status species. Coordination with the MDC and other nature/wildlife organizations will be maintained to insure protection of identified species classified as endangered or threatened at the state level. Management plans will include identification and protection of specific sites, reintroduction efforts, and specific species management.

(4) Disease of Wildlife in the Mark Twain Lake Vicinity Lake personnel will be alert for evidence of wildlife disease or stress. In the event of a possible outbreak, lake personnel will coordinate with the St Louis District Office, U.S. Fish and Wildlife Service (USFWS), and the MDC area biologist. Sick or dead specimens will be delivered to the U.S. Department of Agriculture's Regional Diagnostic Laboratory at Centralia, Illinois or other suitable facility after coordination with the other appropriate agencies. The public will be notified of serious disease outbreaks through standard media outlets and procedures.

(5) Hunter and Hunter Control Hunting is permitted on all public lands except where prohibited. No hunting areas are designated by signs placed on the perimeters of the areas, and are shown on lake brochures. Rules and regulations pertaining to public hunting are contained in the Wildlife Code of Missouri published annually by the MDC.

(6) Physically Challenged Events Management objectives contained within the OMP will consider the needs of the physically challenged community. The Corps of Engineers at Mark Twain Lake conducts physically challenged special events (Fall Deer Hunt and Spring Turkey Hunt) in the Indian Creek Recreation Area. Hunting is normally prohibited in this area, but is open for hunting purposes during these physically challenged events for the event participants. The area offers a safe environment in which to implement this program.

(7) Missouri Department of Conservation. The MDC's responsibility is currently confined to the enforcement of the game laws stipulated in the Wildlife Code of Missouri.

d. Fisheries Management Objective

The objectives of fisheries management program will be accomplished using practices that will be in concurrence with the authorized project purposes. Methodologies shall improve the quantity, function, sustainable productivity, and distribution of aquatic resources for increased recreational fishing opportunities to the extent permitted by law and where practicable and in compliance with State and Federal laws. A more exhaustive and detailed explanation of fishery management practices used are contained in the compartment prescription in the OMP.

(1) Corps of Engineers Fisheries Management Program. All the fisheries and aquatic resources, including the lake, ponds, tributaries, and re-regulation pool within the fee title boundary line are included in the management objectives developed by Mark Twain Lake. Fisheries management objectives will focus on sustaining or enhancing aquatic ecosystems in order to maximize their potential, and enhancing recreational fishing opportunities. Corps of Engineers fisheries management objectives are described in the following:

(a) Aquatic Conservation - Foster sound aquatic conservation and restoration endeavors to benefit recreational fisheries. A temperature control weir, located in front of Clarence Cannon Dam at an elevation of 580.0 NGVD, draws water from the upper level of the lake. This is designed to keep the water releases through the dam into the Re-regulation pool as close as possible to the natural river temperature. The dam is equipped with four tainter gates used during high water periods and a concrete apron with force diffusers. The Re-regulation dam impounds a 9.5 mile pool downstream of the main dam to provide storage for pump-back power generation. Water level fluctuations in the main lake coincide with normal precipitation patterns and power generation

demands. During periods of high pool levels, water quality monitoring of the main pool and re-regulation pool is essential to maintaining sufficient water quality conditions.

(b) Recreational Fisheries Management - Identify recreational fishing opportunities that are limited by water availability, water quality, access, and habitat degradation and promote restoration to support viable, healthy, and where feasible, self-sustaining recreational fisheries.

(c) Nursery Pond Management – Provide supplemental sportfish for the waters of the Mark Twain Lake through the management and maintenance of a nursery pond.

(d) Partnerships – Developing, maintaining and/or encouraging partnerships between federal, state and local governments, and with private sector organizations to advance aquatic resource conservation and enhance recreational fishing through habitat manipulations, stocking, monitoring, and recreational facility development.

(e) Access - Providing access to and promoting awareness of opportunities for public participation and enjoyment of recreational fishery resources.

(f) Outreach - Support outreach programs designed to stimulate angler participation in conservation and restoration of aquatic systems, and encourage recreational fishing at Mark Twain Lake.

(g) Cost-Share Programs - Establishing cost-share agreements, under existing authorities, that match or exceed Federal funds with non-federal contributions.

(2) Endangered or Threatened Species. Species of aquatic life that appear on the Federal or State, Endangered or Threatened species list will be considered under fisheries management objectives that protect and enhance their special habitat needs in coordination with the USFWS and the MDC.

(3) Disease of Fish in the Mark Twain Lake Vicinity. Lake personnel will be alert for evidence of fish disease, or stress. In the event of a possible outbreak, lake personnel will coordinate with the St Louis District Office, USFWS, and the MDC area biologist. Sick or dead specimens will be delivered to the U.S. Department of Agriculture's Regional Diagnostic Laboratory at Centralia, Illinois or other suitable facility after coordination with the other appropriate agencies. The public will be notified of serious disease outbreaks through standard media outlets and procedures.

(4) Anglers and Angler Control. Fishing is permitted except where prohibited. Areas where fishing is prohibited are designated by signs and are

shown in the lake brochures. Rules and Regulations pertaining to public fishing are contained in the Wildlife Code of Missouri published annually by the MDC. Organized fishing events will be monitored and regulated by the MDC, Missouri State Water Patrol and the Mark Twain Lake Project Office.

(5) Missouri Department of Conservation - MDC in cooperation with the Corps of Engineers, conducts fish rearing for their stocking programs, stocking, creel census, development and monitoring of littoral zone habitat enhancement projects, and population surveys necessary to insure sufficient and desirable populations of fish species. The MDC has the responsibility to prepare, report, and update the Mark Twain Lake Fisheries Management Plan to encompass the findings in their studies and proposed management objectives.

12.05 SAFETY

a. General

The Mark Twain Lake Safety program identifies common, recurring unsafe conditions and presents actions that will eliminate or reduce them in the OMP. The objectives of this plan expressed in general terms will be: to assign responsibilities for administration of a viable safety program, to establish programs for training and familiarizing personnel in all aspects of safety, and to present guidelines relative to employee safety and visitor safety.

EM 385-1-1, "Safety and Health Requirements Manual" and Engineer Regulations in the 385 series establish the safety program requirements for all Corps of Engineers activities and operations. Pertinent provisions of EM 385-1-1 and other applicable regulations are applied to all activities. Resource personnel have become familiar with these instructions and implement and enforce those provisions applicable to all Corps personnel, contract personnel and the visiting public. Other measures that are employed to maintain health and safety include, but are not limited to the following:

(1) The Operation Manager appoints a member of the project staff as the project and power plant safety officer. The project and power plant safety officer appoints a safety committee composed of representatives of the staff. The safety committee will develop plans and programs to carry out the provisions of EM 385-1-1 and the Engineer Regulations in the 385 series. The safety committee inspects randomly selected project facilities three times annually to ensure facility safety.

(2) Safety education lectures, meetings, hands-on activities, and videos are given to Government personnel by immediate supervisors and office personnel as required by EM 385-1-1. Semi-monthly safety meetings are conducted by project staff on variety of safety issues to encourage and promote safe working practices and personal protection. Prior to field work, "tailgate" safety meetings

are conducted with the work crews to reiterate safe practices and review immediate job hazards.

(3) Safety Award Program rewards employees for demonstrating a conscious awareness and participation in a safe work place. Employees successfully meeting the criteria of the Safety Awards Program throughout the year are eligible for a cash award.

(4) Resource management training courses and requirements comply with Section I and II of EM 335-1-1.

(5) The project safety plan portion of the OMP is used in program planning and operation.

(6) Project personnel promote, develop, and maintain public interest in recreational safety through the establishment of water safety councils. Personnel also participate in and take advantage of programs offered by organizations such as the National Water Safety Congress, National Safe Boating Council, MDC, Missouri Water Patrol, and the American Red Cross. Guidance and assistance is obtained from the District safety office.

(7) The Mark Twain Lake Project Office's partnership with area schools, local billboard company, Missouri State Water Patrol, Missouri Motorcycle Safety Foundation and Missouri State Highway Patrol actively promote water and highway safety.

(8) The Mark Twain Lake Water Safety Billboard Contest is a Corps promoted campaign to promote boating and water safety in the community. The billboard contest challenges area 7th and 8th grade students to create posters promoting water and boating safety. The winning poster is made into highway billboards displayed along major highways leading to the lake area.

(9) Visitor safety presentations include water safety demonstrations and special events at Corps beaches to promote safe boating and water recreational activities. Partnering with Missouri State Water Patrol during National Safe Boating Week, Corps employees assist with boat inspections and promotion of safe boating.

(10) Safety equipment and materials such as first aid kits; search, rescue and recovery equipment; portable signs and barricades; communications equipment; vehicles; motor launches; and fire fighting equipment are maintained at each project.

(11) Corps employees are trained in first aid, Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillation (AED) in compliance with American Red Cross standards. First aid training includes basic courses and advanced first responders. Project personnel are certified American Red

Cross Instructors to promote project safety preparedness. Project owned AEDs are available for immediate emergency response.

(12) Restricted areas, swimming areas, danger zones, and hazardous areas are properly marked with the appropriate buoys, markers, signs, or barricades which conform to the current Corps Sign Standards (EP 310-1-6a,b) Such devices are placed and maintained to insure the public is adequately safeguarded against hazards. Tail water areas and areas immediately above spillways and dams are properly marked with signs, buoys, or other markers. Signs, buoys, and markers have been installed in connection with powerhouses, and outlet control structures. Project roads and boat launching ramps are adequately signed, marked, or barricaded for proper use and protection of the visiting public.

(13) All facilities and equipment comply with applicable Occupational Safety and Health Administration (OSHA) Standards.

(14) Commercial telephones for emergency use are provided in public use areas where available at a reasonable cost.

(15) Adequate security lights are provided at all boat launching ramps when the lights are available at a reasonable cost. In areas where electrical service is not readily available, reflective type signs/markers have been installed and maintained to identify ramp locations.

(16) Information bulletin boards are provided in public use areas containing location charts, emergency numbers, Title 36 Rules and Regulations, safety tips and other information of interest to the visitor.

(17) A hazard analysis inventory is located at the project office. It contains vital information on the chemicals employees may be exposed to while performing their day-to-day duties.

12.06 FIRE MANAGEMENT

a. Scope

The scope of this section is to establish guidelines for the wildland fire management program at Mark Twain Lake.

b. Policy

Fire is a critical natural process of the ecosystem. Many natural resource values can be enhanced by allowing fire to play its natural role where safe and applicable, providing for the protection of private property and social values. The wildland fire management program at Mark Twain Lake will be consistent with the needs of the public and the management objectives of the

project. Wildland fire management will comply with guidance supplied in ER 1130-2-540, EP 1130-2-540 and the 2001 Federal Wildland Fire Management Policy. The following are the tenets of the fire management activities executed at Mark Twain Lake:

(1) Fire Management and Ecosystem Sustainability – Fire is an essential ecological process and natural change agent. Wildland fires and prescribed fires management policies will be implemented to achieve ecosystem sustainability, including its interrelated ecological and social components.

(2) Protection Priorities – Fire fighter and public safety is the first priority in every fire management activity.

(3) Planning – Fire management plans are developed to define a program to manage wildland and prescribed fires based on the land management objectives.

(4) Science – Fire management will be based on a foundation of sound, current science.

(5) Preparedness – The Mark Twain Lake staff will ensure their capability to provide safe, cost-effective fire management programs in support of land and resource management plans through appropriate planning, staffing, training, equipment, and management oversight.

(6) Suppression – Wildfires will be suppressed or contained immediately and safely, considering fire fighter and public safety, benefits, and values to be protected, consistent with resource objectives.

(7) Prevention – Mark Twain Lake personnel will work with other agencies and affected groups to prevent unauthorized ignition of wildland fires.

(8) Cooperation and Coordination – Fire management planning, preparedness, prevention, suppression, prescribed burn application, and education will be conducted with involvement of cooperating agencies.

c. Wildfire Management

All wildfires upon project lands shall be suppressed or contained immediately in a manner that provides for the safety of the fire fighter, protection of the public, protection of public facilities, and protection of private property. A fire protection plan that will serve as a guide for the prevention and suppression of wildfires at Mark Twain Lake is contained in the OMP. The objective of the fire protection plan is three-fold: Fire Prevention, Presuppression, and Suppression. These objectives should be based on the following guidelines:

(1) Fire Prevention – To reduce the number of man-caused fires is the primary goal of resource management personnel. Fire problem areas must be determined, and prevention programs must be established to create public awareness of the destruction caused by wildfires.

(2) Pre-suppression – Pre-suppression planning will be aimed at establishing an efficient fire control organization utilizing project personnel and equipment. This fire fighting force will operate in close coordination with similar units provided by local fire protection agencies and personnel from the State of Missouri.

(3) Suppression – Once fires have been started, established procedures are outlined in detail in the OMP. The operations manager will update the fire protection plan annually so that improved techniques learned through training and actual fire fighting experiences can be incorporated.

d. Prescribed Fire Management

Prescribed fire management is used to approximate the natural vegetative disturbance of periodic fire occurrence. This vegetative management tool is used to maintain fire dependent ecosystems and restore ecosystems that are outside their natural balance. It is also used to reduce hazardous fuel loads and for preparation for other management practices. Extensive planning and preparation is necessary to successfully and safely execute prescribed fires. Details of specific prescribed fire management practices are contained in the OMP

e. Cooperating Agencies

Successful wildland fire management is dependent upon cooperation and coordination with local fire protection agencies, affiliated groups, and adjacent landowners. Entering into cooperative agreements or other partnership mechanisms will ensure the safety of the fire fighters and the public during the execution of wildland fire management program.