

APPENDIX 3

ENVIRONMENTAL ASSESSMENT

FINDING OF NO SIGNIFICANT IMPACT

Having reviewed the information contained in this environmental assessment, I find that the proposed recreation areas discussed in the Revised Saylorville Lake Master Plan will have no significant effects on the environment. Therefore, these proposed recreation areas do not constitute the preparation of an Environmental Impact Statement (EIS). This determination may be re-evaluated if warranted by later developments.

Factors that were considered in making this determination that an EIS is not needed were:

a. There will be no significant impacts to water quality as discussed in the attached 404(b)(1) Evaluation Report.

b. Aquatic resources within the area of the Sandpiper peninsula and the breakwater for the second marina will be enhanced.

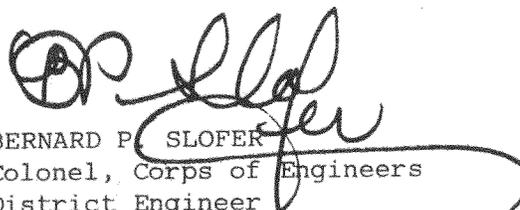
c. Any negative impacts which would occur from the construction of the recreation areas are minor and/or are temporary in effect; positive impacts on recreation are long-term in nature. The effects of these minor and temporary impacts will be more than offset by proposed habitat enhancement measures described in the Saylorville Lake Forestry, Fish and Wildlife Management Plan (Appendix B and D to the Master Plan) and by implemented improvements that were not required as mitigative actions in the past.

d. Wildlife resources will not be harmed by the proposed recreation areas.

e. No significant environmental, social, economic, or cultural impacts are anticipated as a result of the action.

21 DEC 83

Date


BERNARD P. SLOFER
Colonel, Corps of Engineers
District Engineer



REPLY TO
ATTENTION OF:

NCRPD-F

DEPARTMENT OF THE ARMY
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS
CLOCK TOWER BUILDING - P.O. BOX 2004
ROCK ISLAND, ILLINOIS 61204-2004

ENVIRONMENTAL ASSESSMENT

REVISED SAYLORVILLE LAKE MASTER PLAN
INCLUDING PRELIMINARY SECTION 404(b)(1) EVALUATION

POLK, DALLAS AND BOONE COUNTIES, IOWA

OCTOBER 1983

ENVIRONMENTAL ASSESSMENT
 REVISED SAYLORVILLE LAKE MASTER PLAN
 POLK, DALLAS, AND BOONE COUNTIES, IOWA

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Finding of No Significant Impact

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Attachment:
Section 404 (b)(1) Evaluation*

* Not included, see Exhibit 3.

ENVIRONMENTAL ASSESSMENT
REVISED SAYLORVILLE LAKE MASTER PLAN
POLK, DALLAS AND BOONE COUNTIES, IOWA

I. Purpose and Need for Action. Saylorville Lake is located in central Iowa, approximately 11 miles northwest of Des Moines, Iowa. The Saylorville Lake project is a main unit of a comprehensive plan for flood control in the Upper Mississippi River Basin. Saylorville Lake (placed in operation in 1977), provides flood protection to cities, towns and agricultural lands within the lower Des Moines River Valley and along the Mississippi River below Keokuk, Iowa (see plate 1). The project was authorized for flood control in the Flood Control Act of 3 July 1958. This authorization was based upon recommendations established in Senate Document No. 9, 85th Congress, 1st Session.

The revised Saylorville Lake Project Master Plan replaces the Master Plan approved on 4 February 1974. The purpose of the revised Master Plan is to provide an up-to-date, comprehensive guide to the sensitive, wise, and orderly use, development, and management of the natural and manmade resources of the Saylorville Lake project over the next 5 years.

The existing and projected public recreational use at the project warrants the construction of additional recreation facilities and the upgrading of some existing facilities. If new and upgraded facilities are not established, the existing facilities will continue to be overcrowded. If this situation continues, the natural and manmade resources within these facilities will deteriorate. In addition, adjacent natural resources will be vulnerable to negative impacts. In order to circumvent these potential negative impacts, additional recreation facilities and the upgrading of some existing facilities have been proposed in the plan. The proposed facilities include the Prairie Flower Group Campground (plate 2), Sandpiper Recreation Area Beach and Sailboat Launch (plate 3), a second marina (plates 4 and 5), trails (plate 6) and a large amphitheatre, outdoor skills area and a combination archery and skeet range (plate 8), and an additional picnic area (see plate 7). Plate 8 shows the location of each proposed recreation area in relationship to the overall project.

The proposed upgrading of existing facilities includes the rehabilitation of existing campground spurs, erosion control earthwork, the construction of a trailer dump station, two campground amphitheatres, one comfort station, one shower building and one picnic shelter, in addition to general trail maintenance and the addition of courtesy docks at launching ramps.

II. Project Description. The proposed and upgraded recreation facilities for the project are described in the following paragraphs.

A. Prairie Flower Group Campground. The proposed site for the campground is located to the northeast of the existing Prairie Flower Campground. Access would be provided by an extension of the existing access road between the existing campground and Highway 415. The campground will contain seven paved loop roads with a total of 103 campsites. In addition, an open field will be provided for tent camping.

Supporting facilities for the proposed facility will include 4 shower buildings, 10 parking lots with 235 spaces, 2 playgrounds, 1 playfield, 1 amphitheatre, 1 fee collection station, and 1 dump station (see plate 2). The area would be constructed under a 50/50 cost-sharing agreement with the participant assuming all management and maintenance costs.

B. Sandpiper Recreation Area. The proposed site for the beach and sailboat launch facilities is located at the southwest end of a peninsula along the east shoreline of the reservoir. The area is approximately 1/2 mile southwest of the existing marina. Access to both facilities would be provided by using Highway 415 and McBride Drive. The recreation area would be developed under a 50/50 cost-sharing agreement with a non-Federal government entity. The participating partner would assume all management and maintenance costs.

The sailboat launch will contain two paved ramps which will be functional to 840 NGVD. The ramps would be protected by a proposed peninsula approximately 750 feet long, 100 feet wide, and 5 feet in height. The peninsula will require approximately 12,000 cubic yards of impervious material and 850 tons of riprap to protect the structure from wind and wave action. The supporting facilities for the sailboat launch would include a parking lot with 140 spaces, a rigging area with 15 lanes, 2 courtesy docks, 3 picnic shelters and 1 set of vault toilets (see plate 3).

The beach will be approximately 200,000 square feet in size (sand surface) and would be functional to approximately 842 NGVD. The beach will be in a cove area which is bordered to the northwest by a small natural peninsula and to the southeast by the proposed peninsula for the sailboat launch. Supporting facilities for the beach would include one change house, two sets of vault toilets, zoning buoys to provide a defined area for swimming, two sets of trash receptacles and three parking lots with 500 spaces.

C. Second Marina. There are two proposed sites for the second marina; only one of the two sites would be developed. The first site is located to the northwest of the existing Prairie Flower Campground (see plate 5). Access to the area would be provided by Highway 415 and an extension of the existing Prairie Flower access road (see plate 5). The second site is located directly southeast of the Lakeview Recreation Area. Access to this area would be provided by Northwest Beaver Drive and the existing access road to the Lakeview Recreation Area (see plate 4).

The facility could contain a maximum of 251 slips and 62 dry-storage spaces. Site plans for the proposed facility have not been developed. This facility would require 100 percent construction funding by the developer as well as the facility maintenance and administration cost. If a developer would decide to establish a facility at one of the two sites, the site plans would be coordinated with the appropriate Federal, State, county, and local government entities for their review and comments prior to construction. In addition, a separate environmental assessment, a Section 404 report, and 401 certification would be developed and coordinated before construction would take place. The natural resources of both sites are discussed in this assessment and the attached 404 evaluation report.

D. Trails. There are four types of trails for which extensions are proposed. The proposed extensions include approximately 16.25 miles of foot trails, 10 miles of cross-country ski trails, 7 miles of bicycle trails and 6.5 miles of snowmobile trails. The proposed extensions to these trails are displayed on plate 6. The 10 miles of cross-country ski trails are part of the 16.25 miles of proposed foot trails. The 6.5 miles of proposed snowmobile trails are flagged trails similar in nature to the existing 10 miles of seasonal flagged snowmobile trails. The 7 miles of proposed bicycle trails will also be used as snowmobile trails during the winter season. The cost of establishing and maintaining these proposed trails will be funded by the Corps of Engineers. In addition, a 1/4-mile paved handicapped access trail is proposed to the northwest of the Visitors Center. The trail would be used for interpretive programs and nature study oriented to benefit handicapped persons.

E. Outdoor Recreation Skill Area, Skeet Range and Archery Field, Amphitheatre. These proposed recreation facilities can be classified as being constructed dependent upon a latent demand. At the present time there is a small need for these types of recreation facilities at Saylorville Lake which could become more pronounced as time progresses. These types of recreation areas and services are not customarily provided by the Corps. In order to be constructed, these proposed areas would be totally (100 percent) funded by a non-Federal government entity for the construction, maintenance and management of these facilities. Since the development of these facilities is dependent upon future demand and funding by a non-Federal government entity, no site plans have been developed. The proposed site locations are shown on plate 8. If a non-Federal government entity agrees to fund any or all of these three facilities, the site plans, an environmental assessment and a Section 404 evaluation (if needed) will be coordinated for review and comment with the appropriate Federal, State, county, and local government entities. A brief description of the desired character of each area is explained in the following paragraphs.

The outdoor recreation skill area (see plate 8) would provide a practice and instructional area for such activities as cross-country skiing, hand gliding, rock climbing, etc. This area would be a concession site and the concessionaire would be permitted to provide instructions and rent equipment.

Recently, the Iowa Conservation Commission developed a shooting range on land adjacent to Saylorville Lake project land. In the future, that facility could be complemented (if needed) by establishing an archery field and a skeet range on Corps land adjacent to the ICC facility (see plate 8).

In the Des Moines metropolitan area, there has been a renewed interest in concerts, plays, etc. It is possible that in future years there will be a shortage of facilities for these types of activities if the interest continues to grow. A revetment near the Saylorville Lake Barrier Dam could be easily developed into a large outdoor amphitheater which would be utilized during the summer months for various types of performances (see plate 8).

F. Bob Shetler Picnic Area. The proposed site for the picnic area is located in the tailwater area south of the existing Bob Shetler Class A

Campground (see plate 7). Access to the area would be provided by using NW 78th Avenue. The recreation area would be developed under a 50/50 cost sharing agreement with a non-Federal government entity. The participating partner would assume all management and maintenance costs.

The picnic ground would contain 85 picnic tables, 5 shelters, 1 playground, 5 parking lots with spaces, short access trails, and open lawn areas for additional play areas.

G. Upgrade Existing Facilities. The periodic maintenance and upgrading of various facilities within existing recreation areas is necessary to preserve the quality of the natural and manmade resources in those areas. This type of maintenance involves such actions as:

1. Rehabilitating and defining existing campground spurs by outlining the limits of the spur with railroad ties and placing additional gravel in the spur area.
2. Grading, sloping, and planting portions of recreation areas with erosion and/or compaction problems.
3. The periodic placement of wood chips and drainage bars on trails in order to prevent erosion and compaction and the patching or resurfacing of paved trails in order to maintain their function and enhance safety.
4. The placement of landscape plantings to be utilized for buffers, aesthetics, define borders, and control erosion.
5. Landscape maintenance which would include mowing, pruning, the removal of damaged trees and shrubs, seeding, aerating, fertilizing and topsoil replacement.
6. The repaving of existing paved roads within the recreation areas of the project.
7. The maintenance of project buildings which would include preventative maintenance as well as the replacement of broken, vandalized or outdated items.
8. The preventative and replacement maintenance of project utility lines (e.g. water, electric, sewage).

The revised master plan contains maintenance proposals within existing recreation areas to rehabilitate the camping spurs in the Prairie Flower Campground (134 spurs) and the west side of the Bob Shetler Class B Campground (10 spurs), place wood chips and drainage bars on the project trails to control compaction and erosion, establish additional landscape plantings for control, aesthetic and erosion purposes, and lastly, erosion control earthwork to the east of the Lakeview comfort station and adjacent to a picnic shelter in the Walnut Ridge Picnic Ground. In addition, other periodic maintenance takes place at the project which is of a preventative and/or unscheduled nature as in numbers 5, 6, 7, and 8 above.

The revised master plan also contains proposals to construct additional supporting facilities within various existing recreation areas. These construction proposals include the construction of a trailer dump station in the Bob Shetler Class A Campground, a 1/4-mile paved handicapped access trail northwest of the Visitors Center, an amphitheatre in the Acorn Valley and Prairie Flower Campgrounds, an additional picnic shelter and 15-car parking lot in the Cottonwood Picnic Ground, an additional comfort station in the Walnut Ridge Picnic Ground, a new tile drainage field for a comfort station located off of the southeast access loop of the Cottonwood Picnic Ground, a shower building in the Bob Shetler Class B Campground and additional courtesy docks at the Cherry Glen and Lakeview Boat Launch Areas. All of the construction proposals except the handicapped access trail would be established in open, mowed lawn areas of the existing recreation areas. The handicapped access trail would be carefully placed in a wooded area to the northwest of the Visitors Center. As a result, no trees would be removed from the area.

III. Alternatives.

A. No Action. The future demands for certain types of recreation activities cannot be supported by the existing facilities. If no action were taken to satisfy this demand, these facilities would be overused. As a result, the natural and manmade resources of these facilities would be damaged. The economic and environmental impacts associated with this damage would continue to escalate over time as the resources of the existing facilities deteriorate from overuse. In addition, the existing and future recreation needs of the general public would not be met by taking a "no action" alternative.

B. Other Designs and Locations. The designated sites for the proposed facilities will be located in areas where environmental impacts would be held to a minimum and where the natural resources are capable of supporting the facilities and their use. The designs that were developed for those facilities that will be cost-shared were developed to keep impacts to a minimum. The philosophy of developing site plans that keep environmental impacts to a minimum will be stressed during the design and review of those plans for facilities that will be 100 percent funded for construction and maintenance by a non-Federal government entity.

IV. Affected Environment.

A. Terrestrial Environment. The affected terrestrial environment for each of the proposed recreation areas and the upgrading of existing facilities is briefly described in tables EA-1 and EA-2.

B. Aquatic Environment. The proposed Sandpiper Recreation Area and the Second Marina, if established, would have an impact on a small amount of aquatic habitat.

TABLE EA-1

Terrestrial Environment of the Proposed Sites

Site	Topography	Vegetation	Soils and Slope
Prairie Flower Group Campground	Open upland area	Open area consists of grasses and forbs bordered by upland forest dominated by oak and hickory trees	Loams on the open upland area with a slope of 1-9 percent
Sandpiper Beach and Sailboat Launch	Open transition zone between upland and bottom land areas	Grasses and forbs in early stages of succession due to periodic inundation	Sandy loams and loams on the transition zone with a slope of 1-5 percent and 5-9 percent, respectively
Second Marina Lakeview Site	Open transition zone between upland and bottom land areas	Open area consists of mowed lawns, grasses and forbs bordered to the southeast by a bottom land forest	Shallow loam soil over a layer of bedrock with a slope of 1-14 percent
Prairie Flower Site	Open upland area and a sloping transition zone	Open area consists of grasses and forbs and the transition zone is vegetated with an upland forest dominated by oak and hickory trees	Loams on the open upland area with a slope of 2-9 percent; Lester-Colo complex on the transition zone with a slope of 9-40 percent
Amphitheatre	Open transition zone and small open upland area	Open transition zone vegetated in grasses and forbs with the upland area covered in an upland forest dominated by oak and hickory trees	Loams on the upland area with a slope of 2-9 percent clay and Lester-Colo complex soils on the transition zone 14-40 percent
Outdoor Skills Area	Open upland area bordered on the north, east, and south by ravines	Open area consists of grasses and forbs and the ravines are forested with upland species dominated by oak and hickory trees	Loams on the upland area with a slope of 1-9 percent; Lester-Colo complex on the ravines with a slope of 14-40 percent

The proposed peninsula area for the Sandpiper Recreation Area has a benthic habitat which is thought to be almost totally sand (alluvial) 3 to 4 feet thick covered by a layer of silt 6 to 12 inches thick. This theory is based upon the fact that prior to inundation the soils within this area contained large amounts of sand. In addition, the upper portion of the reservoir has had a layer of silt deposited in the north portion of the reservoir area. The principal game fish within the reservoir are the northern pike, crappie, largemouth bass, channel catfish, bluegill and walleye.

A developer for the Second Marina would have the option of establishing a breakwater if so desired. The two proposed sites for the marina are thought to both have a benthic habitat of 3 to 4 feet of alluvial clay over a layer of alluvial sand which is over shale. This type of benthic habitat is not conducive to supporting a large population and species diversity of invertebrates.

V. Environmental Consequences of Preferred Action. This discussion of environmental impacts will focus on the generalized impacts of the proposed and upgraded recreation areas on the natural and manmade resources of the Saylorville Lake project. The 404(b)(1) evaluation (attachment 1) specifically addresses impacts to the aquatic environment.

A. Social Impacts of the Preferred Action.

1. Noise. Heavy machinery such as dump trucks, bulldozers, etc. will generate a temporary increase in noise during construction. When completed, the proposed recreation facilities would have a minor, if any, effect on noise levels.

2. Displacement of People. No people will be displaced as a result of the proposed and upgraded recreation areas.

3. Aesthetics. The overall aesthetics of the project will not change significantly. The supporting facilities for the proposed recreation areas and the upgraded recreation areas will be placed in open upland areas. A basic theme for the supporting facilities will be followed which will represent a combination of aesthetics, maintenance, security and function. The roof style and the materials used in the buildings and supporting facilities will be uniform and compatible with each other and the surrounding natural resources.

The proposed peninsula for the Sandpiper Recreation Area and the breakwater for the second marina (to be constructed at the discretion of the developer) would require riprap for wind and wave protection. Weathering and water-tolerant vegetation will cause the rock to blend in with the surrounding natural resources over time.

4. Desirable Community Growth. The proposed and upgraded recreation areas could have a minor positive effect on community growth.

5. Recreation. Establishing the proposed recreation areas and the upgrading of existing facilities would have a positive effect on recreation at Saylorville Lake by providing additional recreation opportunities. These additional areas and facilities would enhance the

recreation experience by fulfilling the recreation needs of the public, reducing overcrowding, and reducing the damage to the natural and manmade resources at existing recreation facilities attributed to overuse.

6. Community Cohesion. The project will not affect community cohesion.

B. Economic Impacts of Preferred Action.

1. Property Value. Property values will not be affected.

2. Tax Revenue. Tax revenues will not be affected.

3. Public Facilities. Additional public recreation areas and facilities would be added to the Saylorville Lake Project. No other public facilities will be affected.

4. Public Services. The additional recreation areas and facilities would help to fulfill the recreation needs of the general public within the Greater Des Moines and outlying areas.

5. Regional Growth. There will be no effect on regional growth.

6. Employment/Labor Force. During the construction of the proposed recreation areas and facilities there would be a minor positive effect on the local labor force.

7. Business and Industrial Activity. Other than minor short-term positive interactions with construction, business and industrial companies, the proposed recreation areas and the upgraded facilities in existing areas will have no long-term effects upon these companies. The proposed areas could provide business opportunities for the non-Federal government entity who develops and maintains the area(s) or the lessee who maintains and manages the proposed recreation area(s).

C. Environmental Impacts.

1. Manmade Resources. The addition of the new recreation areas and upgraded facilities in existing areas would reduce the excessive wear to the manmade facilities which can be attributed to overuse above the designed carrying capacity.

2. Natural Resources.

a. Terrestrial Resources. In the immediate area of the proposed recreation areas and the upgraded recreation facilities in existing areas there will be minor temporary adverse impacts caused by construction. Construction machinery will generate noise and dust and create a temporary unfavorable environment for terrestrial species. If all of the proposed recreation areas are established, approximately 245 to 255 acres of grass and forbs and 6 1/2 to 7 acres of trees will be impacted. Table EA-2 provides information concerning how many acres of grass and forbs each proposed

TABLE EA-1 (Cont'd)

Terrestrial Environment of the Proposed Sites

<u>Site</u>	Topography	Vegetation	Soils and Slope
Archery and Skeet Range	Open flatland	Open area with forbs and grasses	Loams on the open upland area with a slope of 1-9 percent; Lester-Colo complex on the ravines with a slope of 14-40 percent
<u>Existing Recreation Areas</u>			
Bob Shetler Class B Campground-Rehabilitate campground, spurs, and shower building	Open bottom land area	Developed grass lawns and grass and forbs in open areas	Alluvial fill on a slope of 0-2 percent
Prairie Flower Campground - Rehabilitate campground, spurs, and amphitheatre	Open upland area bordered by sloping transition zones	Developed grass lawns, open areas of forbs and grasses	Loams with a slope of 1-5 percent
Bob Shetler Class A Campground-Trailer dump station	Open bottom land area	Developed grass lawns and grass and forbs in open areas	Alluvial fill on a slope of 0-2 percent
Visitors Center-Handicapped Access Trail	Forested upland area	Upland forest dominated with oak and hickory trees	Loams with a slope of 1-5 percent
Acorn Valley Campground, Amphitheatre	Open upland area	Developed grass lawns	Loams with a slope of 1-9 percent
Cottonwood Picnic Ground - Picnic Shelter, and 15-car Parking Lot, Tile Drainage Field	Open bottom land area	Developed grass lawns	Alluvial sand on a slope of 0-2 percent

TABLE EA-1 (Cont'd)

Terrestrial Environment of the Proposed Sites

Existing Recreation Areas	Topography	Vegetation	Soils and Slope
Walnut Ridge Picnic Ground, Comfort Station, Erosion Control Earthwork	Open upland area	Developed grass lawns	Loams with a slope of 5-9 percent
Lakeview Boat Launch-Courtesy Dock, Erosion Control Earth- work	Open transition zone	Grass and forbs. Anchor system will be placed in this area - partially developed grass area	Shallow loam with a slope of 1-14 percent
Cherry Glen Boat Launch - Courtesy Dock	Open transition zone	Grass and forbs. Anchor system will be placed in this area	Loams with a slope of 1-5 percent

recreation area will impact. If all of the proposed upgraded facilities are constructed in the existing recreation areas, approximately 2 acres of developed open area vegetated in grasses and forbs would be impacted. Table EA-3 provides information concerning the amount of acreage each proposed upgrade will impact.

TABLE EA-2

Proposed Recreation Area Acreages

<u>Proposed Recreation Area</u>	<u>Acreage</u>
Prairie Flower Group Campground	50
Sandpiper Recreation Area	100
Second Marina	
Prairie Flower Site	25
Lakeview Site	15
Trails	15
Outdoor Recreation Skills Area	15
Skeet Range and Archery Field	10
Amphitheatre	5
Bob Shetler Picnic Ground	30

TABLE EA-3

Upgraded Facilities In Existing Recreation Areas

<u>Area</u>	<u>Facility</u>	<u>Affected Acreage</u>
Bob Shetler Class B Campground	Rehabilitate Camping Spurs	No new acreage
Prairie Flower Campground	Rehabilitate Camping Spurs	No new acreage
Bob Shetler Class A Campground	Add Dump Station	1/4
Visitors Center	Add Handicapped Access Trail	1/3
Acorn Valley Campground	Add Amphitheatre	1
Prairie Flower Campground	Add Amphitheatre	1
Cottonwood Picnic Ground	Add Picnic Shelter/15-car Parking Lot	2
Walnut Ridge Picnic Ground	Add Comfort Station	1
Bob Shetler Class B Campground	Add Shower Building	1
Lakeview Boat Launch	Add Courtesy Dock	No acreage
Cherry Glen Boat Launch	Add Courtesy Dock	No acreage
Lakeview Recreation Area	Erosion Control Earthwork	2
Walnut Ridge Picnic Area	Erosion Control Earthwork	1/4

In addition, a small amount of resloping and grading will take place in some of the proposed recreation areas for drainage purposes. The contractor(s) for the proposed recreation area(s) will be required to follow practices to reduce the potential of erosion during construction according to guide specifications (CW-01430 July 1978). This would involve

the use of gravel, grasses, mulches, and temporary berms. Erosion control features of a permanent nature will be introduced into the construction areas as soon as possible. These features would include the extensive use of mulching, seeding, and sodding.

Aside from temporary adverse effects, the proposed recreation areas and additions in the existing areas could benefit terrestrial resources directly and indirectly. The potential for damage to the grasses and forbs in the existing recreation facilities (attributed to overuse) will be reduced by redistributing a portion of this use into the proposed recreation areas. In addition, native prairie species (sideoats grama, sand lovegrass, compass plant, wild bergamont, etc.) could be planted in designated sections of the proposed recreation areas as buffer zones.

b. Aquatic Resources. Two of the proposed recreation areas (the Sandpiper Recreation Area and the Second Marina) could potentially have temporary adverse impacts caused by construction. Construction machinery and motor vessels will generate noise and turbidity. These impacts will create a temporary unfavorable impact for aquatic and semi-aquatic organisms. The placement of 12,000 cubic yards of impervious material and 850 tons of riprap for the peninsula at the Sandpiper Recreation Area will temporarily increase water turbidity. A similar situation would arise if a developer would construct a breakwater for the second marina.

The construction of the peninsula and the breakwater would provide some benefit to the aquatic habitat within the aquatic areas of the proposed recreation areas. The riprap will add diversity to the existing substrate which could increase invertebrate populations. This should also benefit fisheries by providing food, possible spawning sites and/or nursery areas, and additional habitat for certain species of fish.

3. Air Quality. Other than exhaust emissions and dust from construction equipment, the project will have no effect on air quality.

4. Water Quality. The water quality of Saylorville Lake will not be impacted by the proposed recreation areas. A temporary increase in turbidity will occur during the construction of the peninsula and breakwater. Additional information concerning water quality is discussed in the attached Section 404(b)(1) evaluation. The Rock Island District has applied for 401 certification with the Iowa Department of Water, Air, and Waste Management for the proposed peninsula at the Sandpiper Recreation Area. A separate 404 evaluation report and 401 certification will be developed at a later date for the breakwater of the second marina.

5. Water Conservation. The project will have no effect on water conservation.

6. Endangered Species. Two federally listed endangered species may occasionally occur in the reservoir area, the bald eagle (Haliaeetus leucocephalus) and the peregrine falcon (Falco peregrinus).

Bald eagles occur in the reservoir area primarily during the winter months. The eagles use trees adjacent to the reservoir and outlet structure for perching and open water areas in the winter months for feeding. Perching trees adjacent to the reservoir and outlet structures as well as winter open water areas would not be disturbed by the proposed recreation areas.

The peregrine falcon may be present in the project area during the spring and/or fall migration periods. There are no recorded sightings of the falcon within the project area but there have been recorded sightings within the region. The project contains a small amount of habitat which would be favorable to the falcon during the migration seasons. This habitat consists of nonforested open areas adjacent to the former river valley. This habitat would not be impacted by the proposed recreation areas and is not utilized for recreation purposes from mid-fall to late spring. The U.S. Fish and Wildlife Service was consulted and have concurred that no adverse impacts will occur to these endangered species (see the attached telephone conversation record).

7. Archaeological/Cultural Resources. The more than 450 archaeological sites encompassed by the Saylorville Lake Archaeological District constitute a significant cultural resource which has been and is being adversely affected by project-related actions (which include the proposed recreation areas). Work is continuing in accordance with the Memorandum of Agreement to mitigate the effects on the resource through intensive investigation and analysis. Current plans call for this work to be completed by 1984. Preservation and stabilization of significant resources will be handled on a site-by-site basis.

VI. Environmental Impacts of Nonpreferred Alternatives. If the proposed areas and the upgrading of existing facilities were not established, damage to the environmental resources of the existing recreation areas would happen from overuse. This would occur if the physical and designed carrying capacity for the existing recreation area(s) were exceeded over a given period of time. In addition, the existing and projected future recreation demands of the public cannot be supported by the existing facilities.

The designated sites for the proposed recreation areas and the upgraded recreation facilities in existing areas have been chosen because these sites would have a minimal amount of environmental impacts if facilities were established on them. The natural resources of the sites are capable of supporting recreation facilities and activities. The proposed cost-shared recreation areas have been designed to keep impacts to a minimum. This philosophy will be stressed during the development and review of plans for those areas that will require 100 percent funding by a non-Federal government entity for construction and maintenance.

VII. Probable Adverse Environmental Effects Which Cannot Be Avoided. Temporary impacts caused by construction activities such as noise, dust, and increased local turbidity cannot be avoided. The removal of some

grasses, forbs, and trees are necessary to establish the main and supporting facilities within the proposed recreation areas. A small amount of grasses and forbs will be impacted by the addition of additional facilities in existing recreation areas. See Table EA-3 for additional information.

VIII. Relationship Between Short-Term Use of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity. The quality of the substratum, invertebrates, and fishery around the proposed peninsula and breakwater would be enhanced over time if these facilities were established. The loss of grasses, forbs, and trees can be alleviated over time by the planting of trees and native grasses and forbs within the buffer areas of each recreation area. The quality of the environmental resources within the existing recreation areas would not be impacted as a result of developing additional recreation areas.

IX. Any Irreversible or Irrecoverable Commitments of Resources Which Would Be Involved if the Proposed Action Should Be Implemented. Fuel and hours of manpower used during the construction of the proposed recreation areas can be classified as being irretrievable.

X. Relationship of the Project to Land Use Plans. The primary purpose of the affected lands is for flood control. In addition to flood control benefits, the project fulfills a multipurpose role by providing low-flow augmentation, water supply, recreation, water conservation, and fish and wildlife benefits. The proposed recreation areas are in unison with the project purposes.

XI. Compliance with Environmental Quality Statutes.

A. Endangered Species. Consultation concerning endangered species has been initiated with the Rock Island Field Office of the U.S. Fish and Wildlife Service.

B. Archaeological/Cultural. Work is continuing in accordance with the Memorandum of Agreement to mitigate the effects of the resource through intensive investigation and analysis. Current plans call for this work to be completed by 1984. This work includes the proposed recreation areas. The SHPO has reviewed the draft of the Saylorville Master Plan and will be given an opportunity to review and comment on the revised final.

C. Federal Water Project Act. Under a cost-sharing agreement* (PL 89-72) the Prairie Flower Group Campground and the Sandpiper Recreation Area could be established. The Second Marina, amphitheatres, archery and skeet range, and the outdoor recreation skills area would require 100 percent construction and maintenance funding by a non-Federal government entity. The existing facilities funded by the Federal Government will be affected by the proposed recreation areas.

D. Fish and Wildlife Coordination Act. The U.S. Fish and Wildlife Service and the Iowa Conservation Commission have been consulted during the preparation of this assessment.

* See discussion in Master Plan, Section V, subparagraph entitled Application of Public Law 89-72, page 99.

E. E. O. 11988 - Flood Plain Management. The Project will not have any effect on the development of habitable structures in the flood plain. Flood heights will not be affected by the proposed recreation areas.

F. Wild and Scenic Rivers Act. No wild and scenic rivers will be affected by the proposed recreation areas.

G. E. O. 11990 - Protection of Wetlands. No wetlands will be affected by the proposed recreation areas.

H. Clean Water Act. A Section 404(b)(1) evaluation report has been prepared and is attached to this assessment.

I. Clean Air Act. Not applicable.

J. Monitoring and Mitigation. The Rock Island District, Corps of Engineers is continuing archaeological and cultural work in accordance with the Memorandum of Agreement to mitigate the effects of the resource through intensive investigation and analysis. Current plans call for this work to be completed by 1984. The Rock Island District will continue to monitor the natural resources of the proposed recreation areas before and after construction.

XII. Conclusions. The proposed recreation areas will have no significant adverse effects on the environment.

XIII. Coordination. The following agencies have been contacted during the preparation of this Environmental Assessment:

United States Fish and Wildlife Service
Iowa Conservation Commission

TELEPHONE OR VERBAL CONVERSATION RECORD

For use of this form, see AR 340-15; the proponent agency is The Adjutant General's Office.

DATE

23 August 1983

SUBJECT OF CONVERSATION

Endangered Species/Fish and Wildlife Coordination Act - Revised Master Plan for Saylorville Lake

INCOMING CALL

PERSON CALLING

ADDRESS

PHONE NUMBER AND EXTENSION

PERSON CALLED

OFFICE

PHONE NUMBER AND EXTENSION

OUTGOING CALL

PERSON CALLING

OFFICE

PHONE NUMBER AND EXTENSION

Timothy R. Toplisek

Rock Island District
US Army Corps of Engineers

309/788-6361
ext. 6308

PERSON CALLED

ADDRESS

PHONE NUMBER AND EXTENSION

Jerry Rasmussen

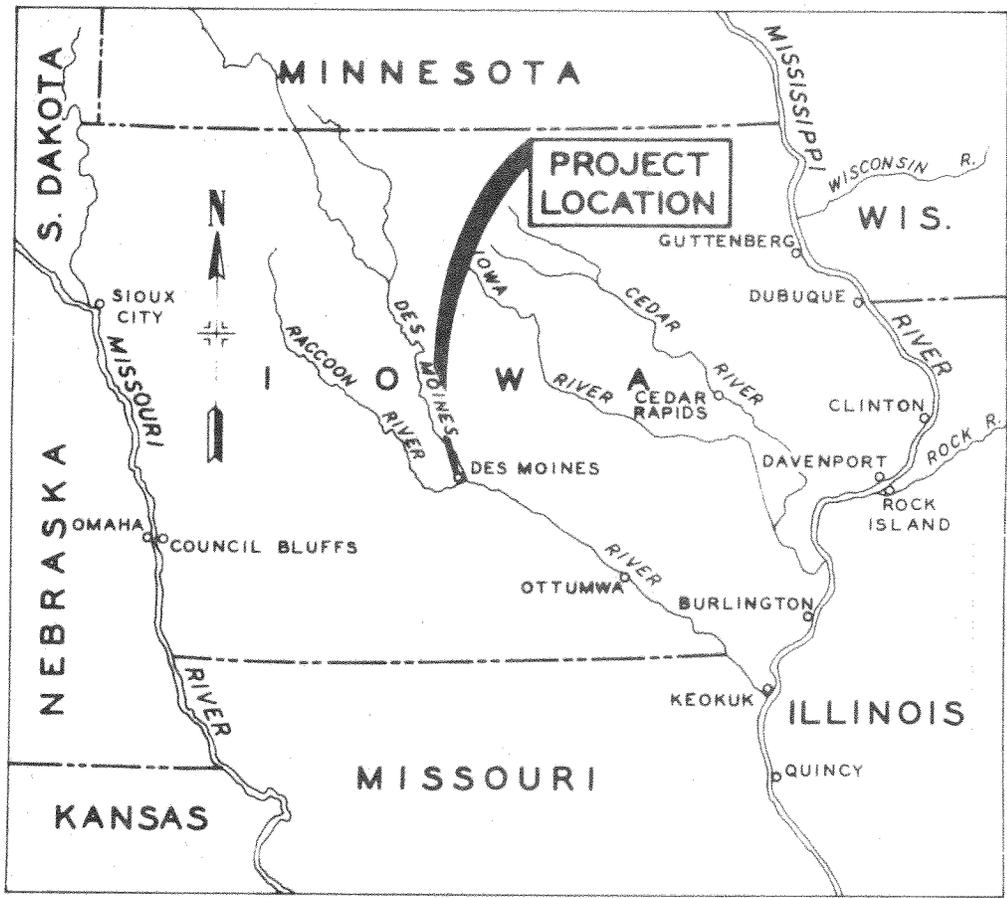
Rock Island Field Office
US Fish and Wildlife Service

309/793-5800

SUMMARY OF CONVERSATION:

I called Mr. Rasmussen to obtain Section 7 and Endangered Species Clearance for the Revised Saylorville Lake Master Plan. I informed Mr. Rasmussen about the proposed recreation areas described in the plan and the natural resources and habitats within the proposed site areas. I also stated that the proposed recreation areas would not have an effect on habitat utilized by endangered species.

Mr. Rasmussen stated that based on this information he granted the Rock Island District Section 7 and Endangered Species clearance.



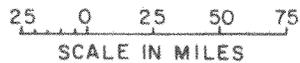
VICINITY MAP

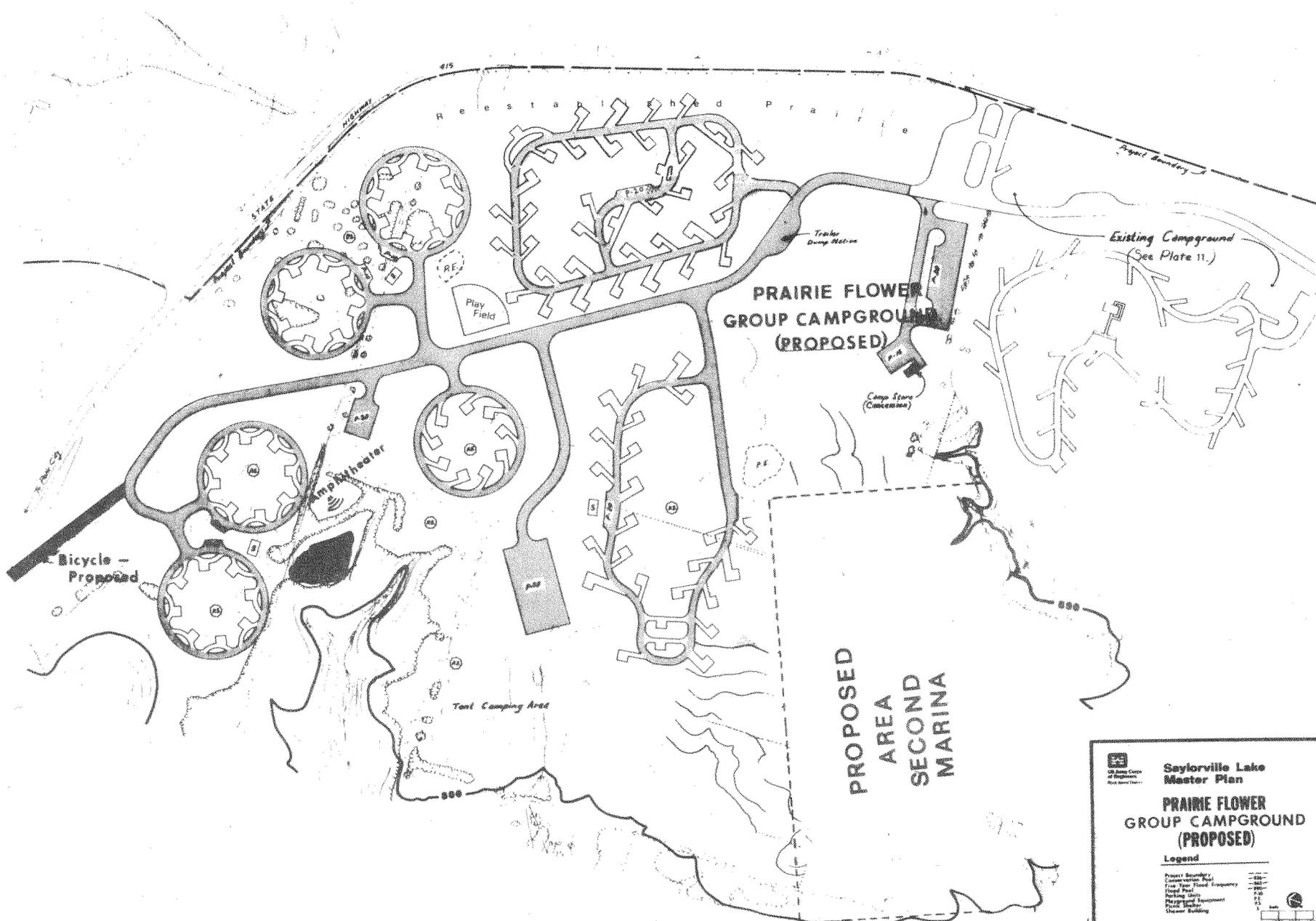


US Army Corps
of Engineers
Rock Island District

Saylorville Lake
Master Plan

PROJECT LOCATION



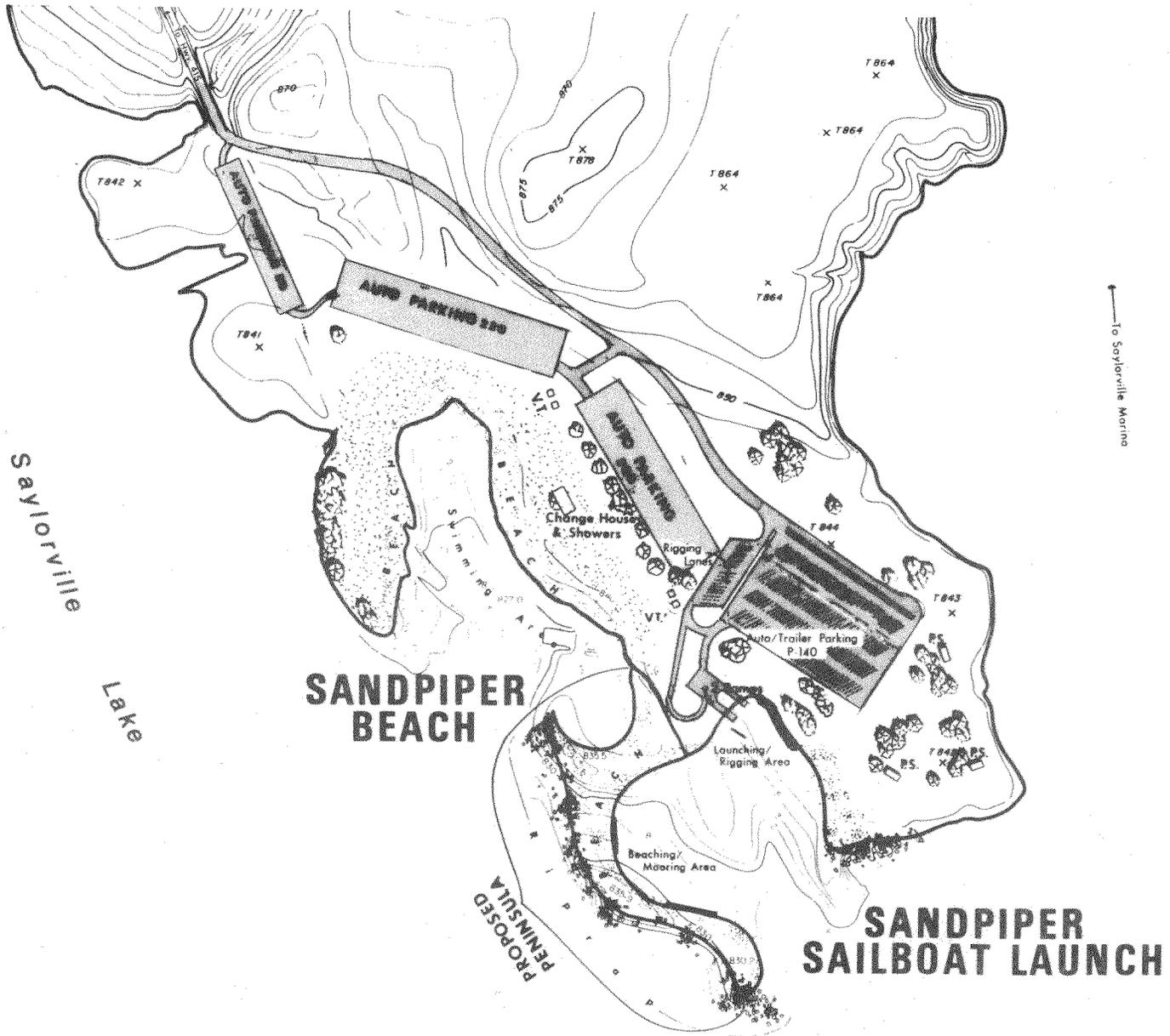



Saylorville Lake Master Plan
PRAIRIE FLOWER GROUP CAMPGROUND (PROPOSED)

Legend

Project Boundary	—
Construction Foot	—
Five Year Flood Frequency	—
High Road	—
Medium Road	—
Recreational Equipment	—
Play Shelter	—
Shower Building	—



Saylorville Lake

→ To Saylorville Marina

SANDPIPER BEACH

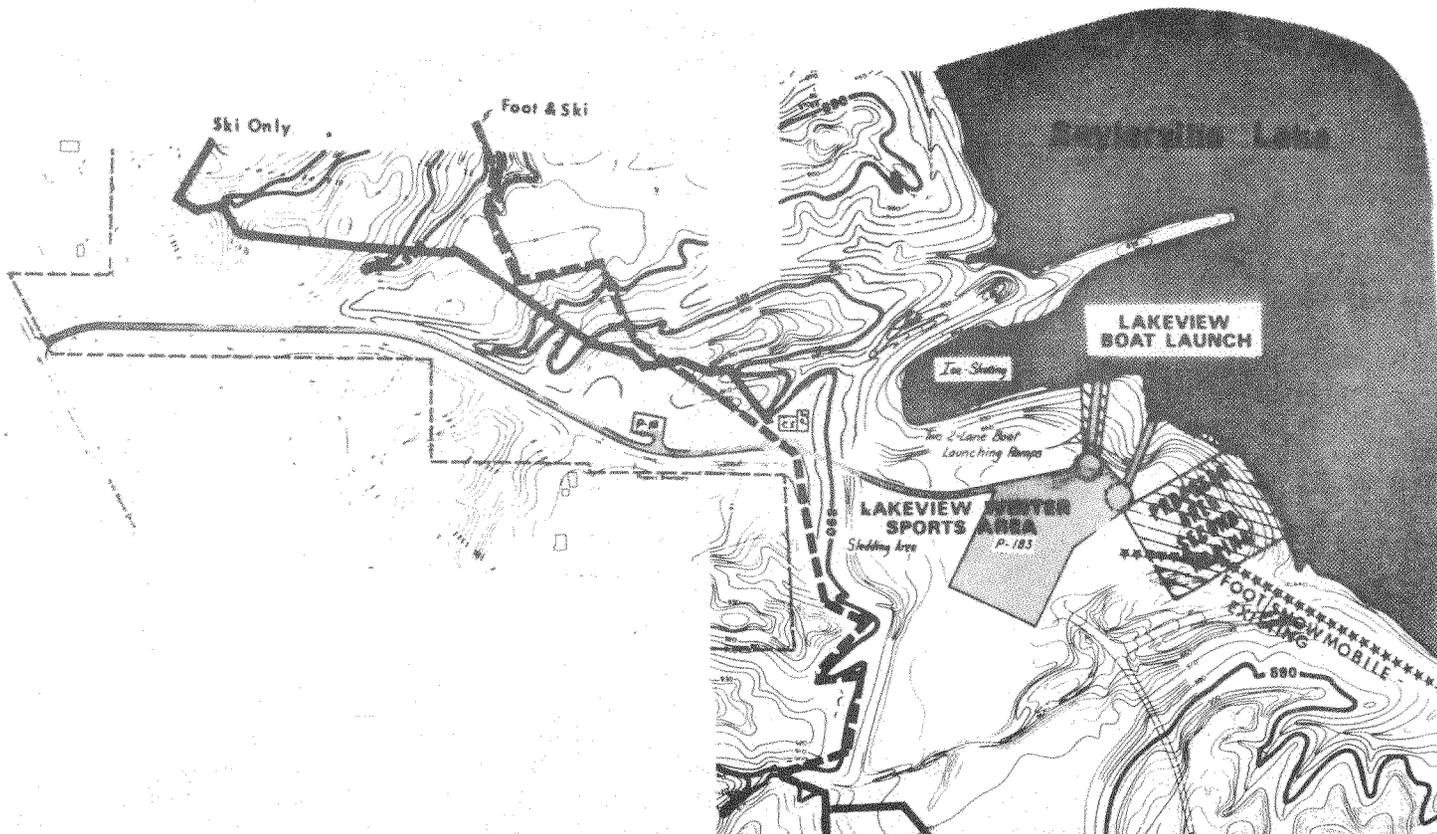
SANDPIPER SAILBOAT LAUNCH

**Saylorville Lake
Master Plan**

**SANDPIPER RECREATION AREA
(PROPOSED)**

Legend

Project Boundary	---
Centerline Road	—●—
Five Year Flood Frequency	---
Water Pool	---
Proposed Utility	---
Proposed Equipment	■
Public Shelter	□
Shower Building	□
Confined Storage	□
Vault Toilet	□



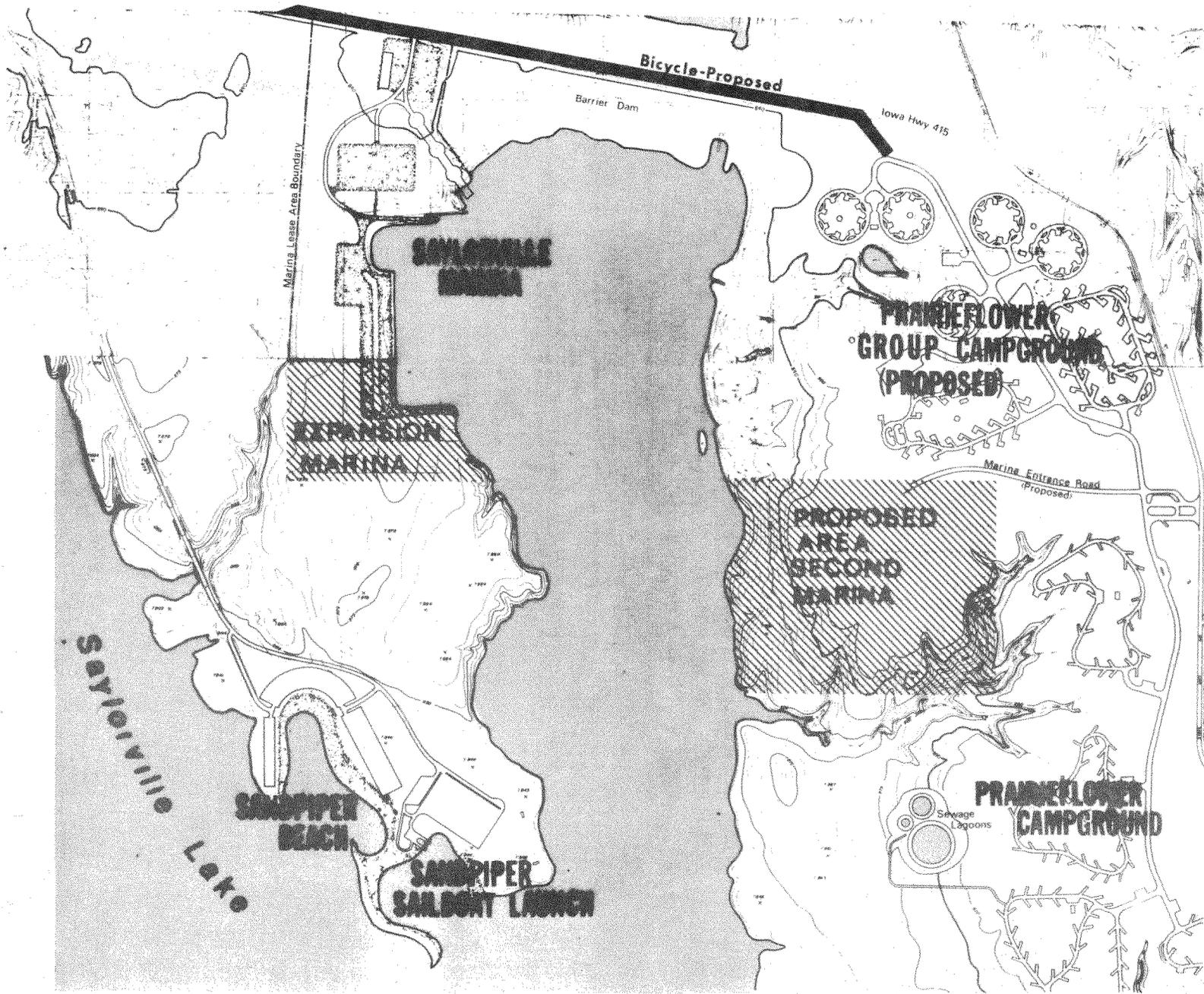

**Saylorville Lake
Master Plan**

LAKEVIEW RECREATION AREA

Legend

Project Boundary	---
Construction Foot	- - - -
Zone Type - Flood Frequency	- - - -
Wood Post	- - - -
Parking Area	□
Recreational Equipment	○
Shower Building	○
Cosmetic Station	○
Wash Trailer	○



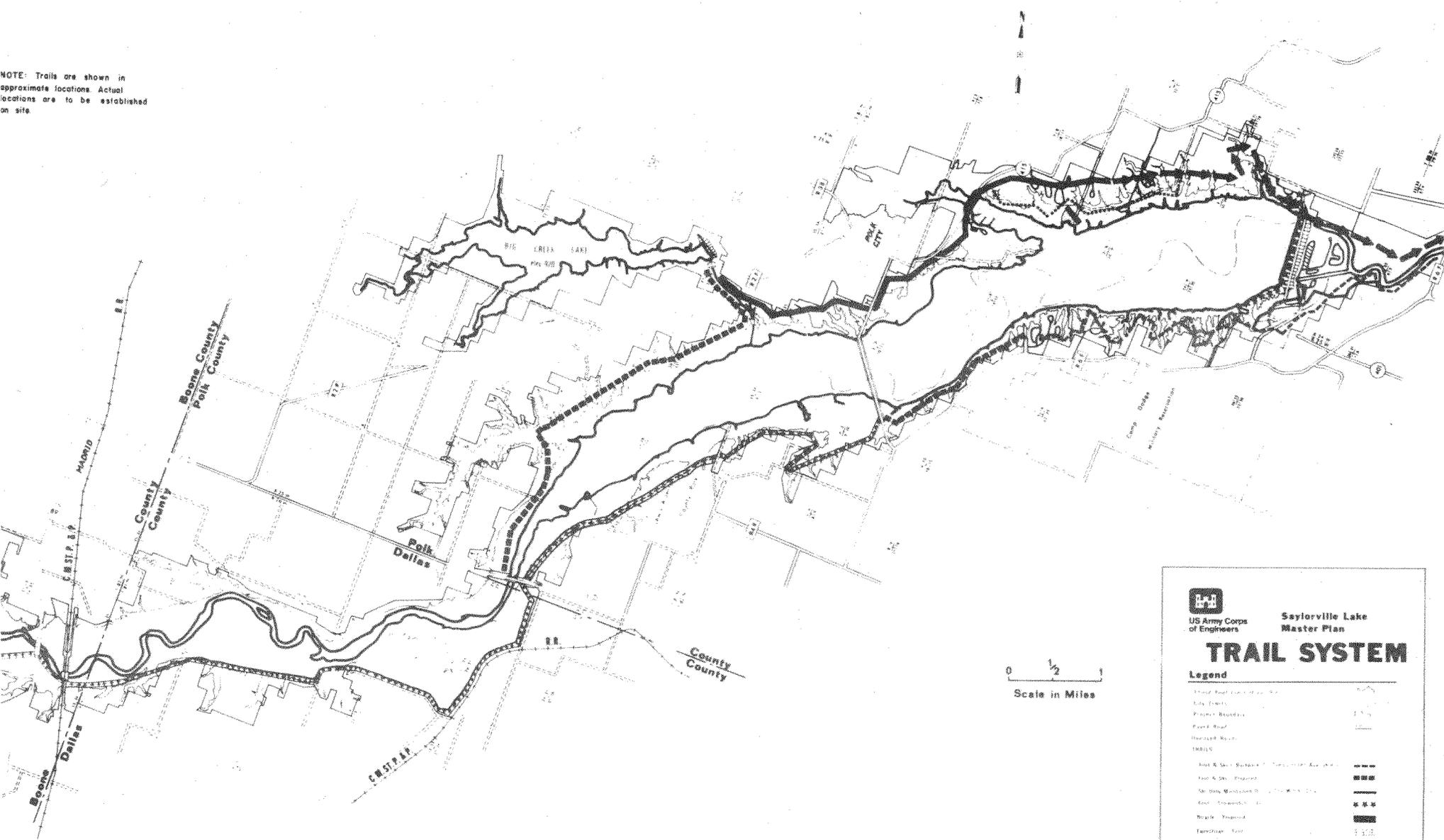

Saylorville Lake Master Plan
MARINA DEVELOPMENT ALTERNATIVES

Legend

Project Boundary	---
Concretion Pad	---
Five Year Flood Frequency	---
Fixed Pad	---
Parking Lot	---
General Development	---
Prop. Building	---
Water Building	---
Landmark	---




NOTE: Trails are shown in approximate locations. Actual locations are to be established on site.





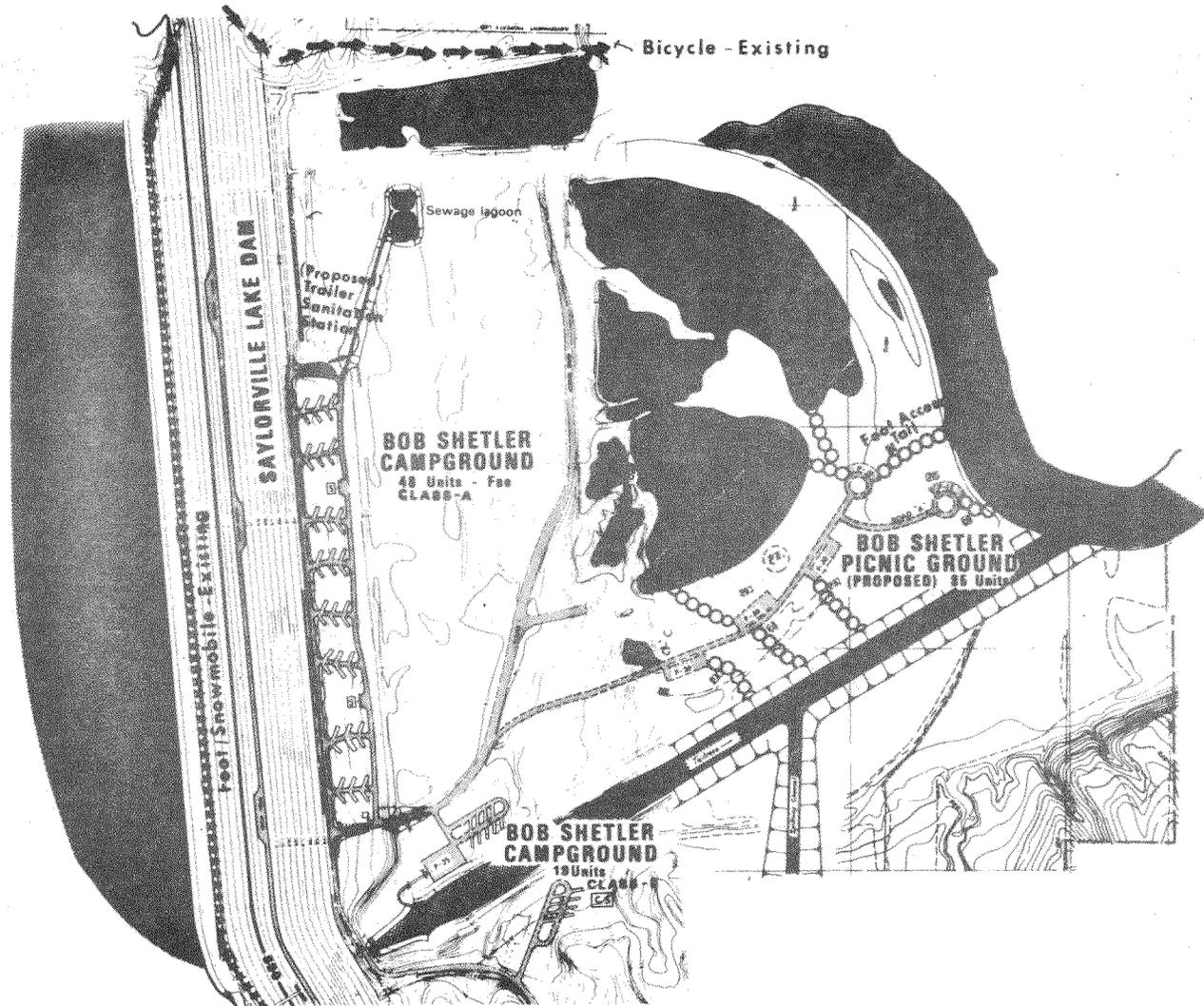
US Army Corps
of Engineers

Saylorville Lake
Master Plan

TRAIL SYSTEM

Legend

State Road	
City Street	
Project Boundary	
Public Road	
Harvest Road	
TRAILS	
Trail & Sign System (Temporary)	
Trail & Sign Proposed	
Trail Boundary (Proposed)	
Trail Boundary (Existing)	
Trail Boundary (Future)	
Trail Boundary (Other)	
Trail Boundary (Other)	
Trail Boundary (Other)	



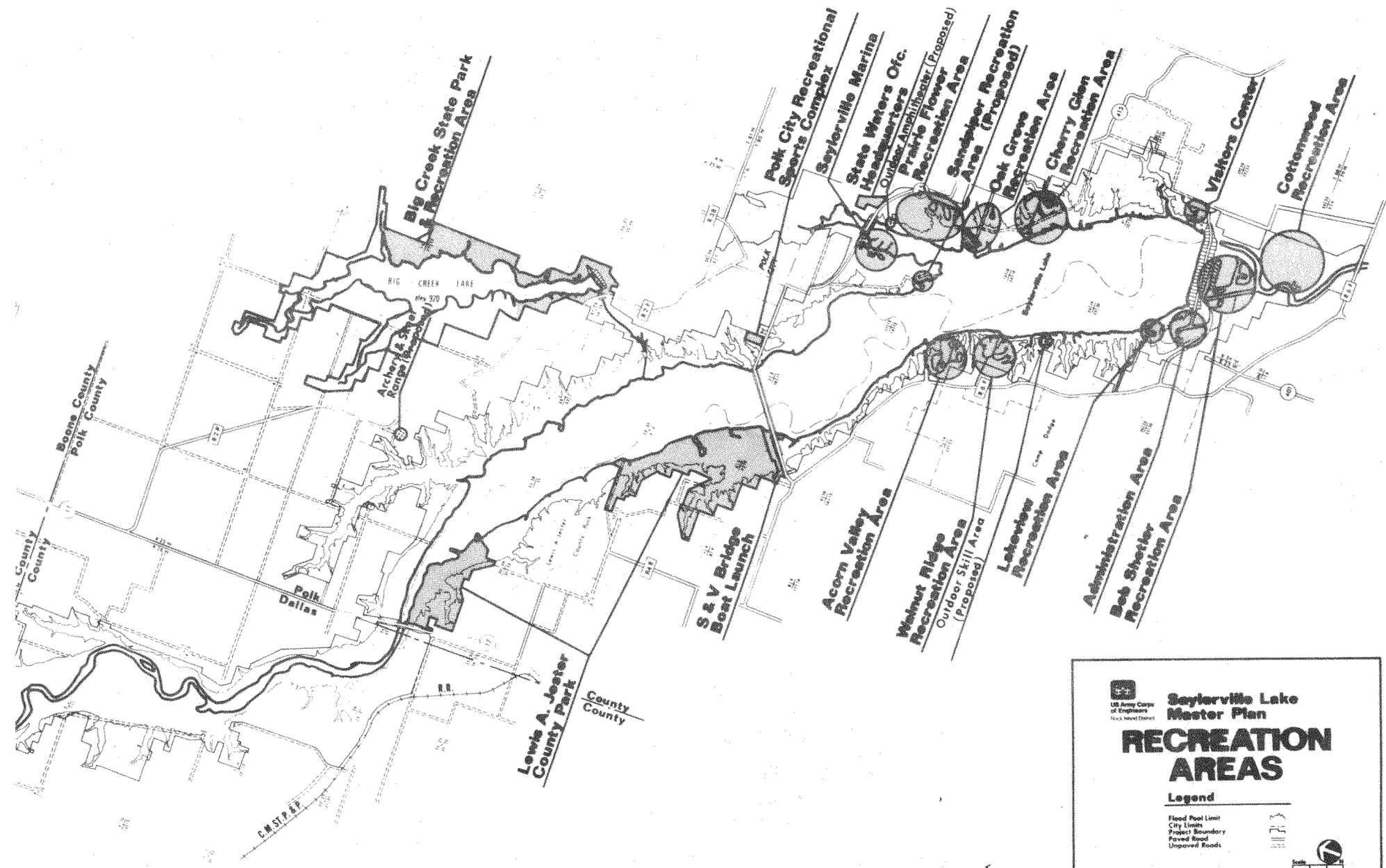
Saylorville Lake Master Plan

BOB SHETLER RECREATION AREA

Legend

Project Boundary	---
Construction Foot	---
Tree Top / Road Frequency	---
Wood Pile	---
Parking Area	---
Proposed Equipment	---
RV/CP Shelter	---
Shower Building	---
Coupler Station	---
Wash Station	---

Scale: 0 50 100 200 Feet



Saylorville Lake Master Plan
 RECREATION AREAS

Legend

- Flood Pool Limit
- City Limits
- Project Boundary
- Paved Road
- Unpaved Road

Scale: 0 1000 2000 3000

PLATER

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ENVIRONMENTAL ASSESSMENT
AND SECTION 404 (b)(1) EVALUATION
FOR THE
REVISED SAYLORVILLE LAKE MASTER PLAN

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