

## PROVIDING ADEQUATE ACCESS ON LARGE RESERVOIRS

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Emphasis on the provision of adequate access at large reservoirs has been generated by the increasing participation of the public in outdoor recreation during the past decade.

The many wholesome activities that we associate with water areas created during that period are varied enough to be attractive to almost every member of any family. The fisherman is being crowded, the boatman is having to learn rules of navigation, and the hunter is being forced to search for safe shooting areas. Each is having to be more respectful of the other and to be more versatile in the use of his own leisure time. It is getting extremely difficult to separate a fisherman-visitor from a boater, a camper, a picnicker, a swimmer, or even a sightseer.

It is because of these multiple recreation uses that the need for providing access to reservoirs is receiving such general recognition. Yet the impetus in establishing access areas has largely been furnished by the need for launching trailer-borne boats. This is understandable when the spectacular increase in the size and number of boats and motors currently owned by individuals is considered. The hauling of recreational boats behind the family car over the highways and county roads in view of residents and tourists tends to promote further boating interest. The publicity given the entire boating activity has brought the needs and demands for boat access to water areas into focus.

The development of outdoor resources of reservoirs cannot be limited to the boat-launching needs alone. On our large bodies of waters, particularly the lakes or reservoirs of multiple-purpose projects and the pools created by navigation projects that have been constructed during the past 20 years, the public rightfully expects and is permitted to enjoy practically all of the resources of those projects.

Congress recognized the recreational use potential, if not the magnitude, when in 1944 it passed the Flood Control Act, which is, and has been, the directive of the Corps of Engineers to develop and permit others to develop the land and water areas of its Civil Works projects. That act, although amended in 1946 and 1954, retains the words intact "That the water areas of such reservoirs shall be open to the public use generally, without charge, for boating, swimming, bathing, fishing, and other recreational purposes, and ready access to and exit from such water areas along the shores of such reservoirs shall be maintained for general public use when such use is determined by the Secretary of the Army not to be contrary to the public interest . . .".

Our conception of adequate access is site preservation and development to provide facilities needed for suitable recreational activities at any one site. Planning, therefore, must be in keeping with the inherent attractiveness of the site and its relative importance to other sites on the reservoir that are available for recreational access use. The overall development planned must be limited to the least disturbance of the natural values of the site; by topography, including land conformation and underwater configuration; accessibility by existing and planned roads; relationship to population concentrations; and the anticipated outdoor recreational needs of the populace within the influence of site attraction.

Public access areas are acquired by the Corps at the projects it is authorized to design and construct. The areas are located in accordance with the above concept, following field reconnaissance of the reservoir area and a study of economic status of the tributary user populace. Presently, areas are located from 5 to 10 miles apart on each side of reservoirs along the major axes of those reservoirs and their larger tributary streams, varied only for justifiable reasons. The size of public access areas will generally be about 40 usable acres, which is an increase in size over an earlier conception that 10 to 25 acres would be sufficient. Where extensive public use is probable an access area may be increased in size to 300 acres for a more general development as a public

use area comparable in size and development to that of a small public park. On the average, about every fourth access area will be an enlarged one.

All public use and access areas are selected for acquisition on the basis of a preliminary master plan. This is actually a general development plan which correlates all planning of a reservoir for recreation, conservation and other land uses. The number and size of the areas acquired are governed by the principle that the public should not be prevented from freely using the reservoir water area and should be provided with enough land area around the reservoir to accommodate foreseeable visitor needs for sightseeing, picnicking, camping, swimming and bathing, and boating and fishing, including the attendant requirements for parking and boat launching.

The priority of recreational use development is determined by constant observation of recreational activities of visitors to reservoir projects, the potentials of the land areas, and the boating and fishing potentials of the different sections of the water area. State Game and Fish agencies are encouraged and assisted in making creel census studies before and after impoundment of reservoir waters to determine the fish populations and fishery potentials of large reservoirs. Also, the Corps requires its boat-livery concessioners to check the number of boat-fishermen, while its rangers spot check the number of both boat-and bank-fishermen.

Based on analyses of visitor attendance and experience in operating reservoirs built throughout the United States, the Corps has just recently established guideline criteria that should be helpful to its reservoir planning personnel to plan, design and to program construction of facilities which should be provided to meet anticipated and demonstrated public recreational-use needs.

The makeup or composition of public access areas includes such facilities as overlooks, picnic tables and shelters, fireplaces, tent and trailer camp sites, washhouses, bath-change shelters, boat-launching ramps, comfort stations, water supply, trash receptacles, footpaths, roads and parking areas, signs, markers, fishing walkways and fish attractors or brush shelters offshore. In other words, adequate development of access areas provides the facilities required for all reasonable outdoor recreational activities for which the sites are suited.

This does not mean that every site should be composed of the same facilities either in number or extent. The determination of what is needed at each site initially, as well as ultimately, should be made to assure timely provision of needed facilities compatible with the concept on which the site was selected to be an access area. Not all, but a large number of sites on a reservoir should be provided with minimum facilities for water access, particularly boat-launching which requires an access road, a launching ramp, and a parking area. This is needed for the recreational boaters and campers the boat-fishermen, and for the visiting bank-fisherman to leave his car parked in a safe location while he walks the shore.

The selection and designation of the sites needed for access to the water is of primary importance. It is the attractiveness of the water of reservoirs that invites and holds the visitor and creates his desire to return. These locations should be determined early on the basis of the stated concept but not without full consideration of anticipated visitor attendance and the recreational activities that will be participated in by the visitors to the reservoir area. The attendance estimates made by operating personnel at the Corps of Engineers reservoirs in 1959 in the South Atlantic Division, from which is excluded the southeastern fringe states of Tennessee, Mississippi and Louisiana, totaled over 13 million visitors to its reservoirs and river pools. Of these 13 million visitors, 12 million were visitors to four large Corps reservoirs located within a 25-mile radius of the southeastern rivers that originate in Georgia alone. The significance of this figure to the whole recreational picture of that geographical area is indicated by comparison with the 1959 attendance at the other outdoor recreation areas in that same area where 1959 attendance figures secured from Federal and State agencies by the U. S. Study Commission, Southeast River Basins in Atlanta, are in user-days, in round figures, as follows:

National Forests .....	2 Million
National Parks .....	½ Million
State Parks (omitting coastal areas) .....	3½ Million
Bureau of Sports Fisheries and Wildlife Areas .....	¼ Million

Thus giving a total of 6¼ million visitors to public areas of other Federal and State agencies as compared with the Corps' 12 million visitors.

Apparently, it is evident that attendance at reservoirs is of primary importance to recreation development and it should be of interest to planners of access areas for large reservoirs to know that of the 12 million visitor figure it was estimated by the Corps' Districts of the Division that the activity participation at those four large reservoirs varied in percentages as follows:

<i>Reservoir</i> (1959 Visitors)	<i>Sightseers</i> %	<i>Picnickers</i> %	<i>Campers</i> %	<i>Swimmers</i> %	<i>Boaters</i> %	<i>Fisherman</i> %
Allatoona (3,153,600) .....	20	16	5	6	49	3
Sidney Lanier (4,906,000) .....	50	15	6	5	22	2
Clark Hill (2,907,800) .....	21	35	7	7	14	14
Seminole (1,034,000) .....	15	8	3	5	29	29

The two reservoirs with the smaller percentages of fishermen visitors are located within day-use distances of the large metropolitan area of Atlanta. While these percentages show that fishermen visitors have maintained importance on the two other reservoirs, which are more remote from large population centers, it should also be recognized that those two reservoirs have also possessed and maintained the best fishing waters in their areas. Land and water access data on those reservoirs at the end of 1959 were reported to be:

	<i>Public Access Points</i> <i>Developed or</i> <i>Undeveloped</i>	<i>Needed to be</i> <i>Developed</i>	<i>Public</i> <i>Boat-Launching</i> <i>Ramps</i> <i>Developed</i>
Allatoona Reservoir .....	47	6	34
Lake Sidney Lanier .....	25	34	20
Clark Hill Reservoir .....	213	10	81
Lake Seminole .....	40	5	27

It is important to know the fishing and boating potential of each reservoir in order to approximate the anticipated number and location of areas that should be selected and planned for development. The agencies responsible for the fisheries resources, both use and development, should continue to work as closely as practicable with the planners of the design and constructing agencies of public reservoirs to help select the access areas that should be provided primarily for the fishermen visitors. These are the areas at which the Game and Fish Commissions should participate in development of the facilities for the fisherman and take over management of the areas. The possibility of using Dingle-Johnson or other funds available for use for the development of facilities at such access areas at large reservoirs should be further explored and extended. Participation in the development by the responsible fisheries agencies will not only result in meeting the fisherman's needs but will also permit the owner or operating agency to use obtainable funds to better develop the other access areas for dispersing the other types of recreation visitors that are now crowding the sport fisherman and his family.

Adequate access on large reservoirs for the public will be provided if establishment, development, and management of the areas at each reservoir are based on appraisal of the land and water resource potentials; location of the number and extent of areas related to the recreational needs of the tributary user population; careful planning, layout, design and construction of the facilities required at each area in orderly sequence in conformity with observed and

anticipated trends in outdoor recreational activities; and coordinated and cooperative development of each area in accordance with its best use by participation of all agencies having responsibilities in the field of recreation use, development or management.

## SIZE OF ACCESS AREAS—A CONTRIBUTION TO A PANEL ON ACCESS AREAS

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In considering the question of developing parcels of land into public access sites, one becomes very much aware of the fact that he cannot easily advise as to the construction and features of these sites without a complete understanding of the area and topography involved. The panel which you see here is made up of authorities, any one of which might answer the question of access area size much better than I. I might even change my views after hearing further discussion of this pertinent topic. So you should keep in mind that my remarks are very much subject to qualification, depending upon the access problem at hand. I shall attempt to give you a base point, or formula, from which the discussion may revolve.

Probably the first to put our access area requirements into figures, as well as to take a real hard look at the future, was Dick Stroud, in an editorial in the Sport Fishing Institute Bulletin. Here, among many other timely remarks, he made an effort to propose the magnitude of the access problem we face. Looking into the future, he said that we should prepare 10 acres of public access for each 300 acres of reservoir. Of course, Dick realized that these areas need not be the same size, and that it would be desirable if some were larger than others to accommodate various types of uses.

I know that when I first saw these figures, I was inclined to feel that this was more land than would ever be needed for access. I could not imagine that our 150,000 acre Kentucky Reservoir would need 5,000 acres of access area. In the intervening years, and after having more experience with the access problem, I have revised my thinking to nearer agreement. Now, whether or not you agree with the figure of 10 acres of access per 300 acres of water, Stroud has provided us with a figure to work around. Although I would commend those who have initiated an access area program—building areas one at a time as their means would permit them—I believe that we are now at the stage when a plan and complete understanding of what we are doing is essential to the solution of this access problem. We should know what we need, and the goals at which we are shooting.

Just as the need for such a plan applies to the access problem as a whole, I believe that we need some sort of figure to shoot at in terms of the number of acres that should be included in each access area. Since most governmental agencies are not so flush that they can afford to buy more lands than they need, a maximum size area is just as important to determine as a minimum size. The main thing is that the area will be of adequate size to serve present and future needs. The purpose of my discussion is to evaluate this question with respect to the number and acres desirable in each access site.

### TYPES OF ACCESS

I would like to confine my discussion to reservoir fishing access, primarily where boat launching facilities are required. The access problem as you will recognize, is much broader than launching alone. Access problems confront us when we deal with multiple use of land and water resources. Hunting access to wildlife producing lands, or even access to a trout stream fishing area, may pose problems when other interests are involved. Even access to warm water fishing streams is becoming a critical problem today, and we must soon come to grips with this question in many of our southern states. I feel, however, that the question of access area size is one which applies mainly to reservoir access where the public already has the right to use the