

STATE OF MONTANA

DM



DEPARTMENT OF

FISH AND GAME

Helena, MT 59601
February 8, 1979

RECEIVED
FEB 13 1979
ENVIRONMENTAL QUALITY
COUNCIL

Mr. Terry Carmody, Executive Director
Environmental Quality Council
Helena, MT 59601

Dear Terry:

Enclosed are two copies of preliminary environmental reviews covering minor improvements at the following fishing access sites:

- FG-N-98 Willow Creek Reservoir
- FG-N-100 Martinsdale Reservoir ✓
- FG-N-104 Far West Fishing Access Site ✓
- FG-N-106 Cameron Bridge Fishing Access Site

We hope these documents will satisfy the requirements of the Environmental Policy Act. Copies have been sent to the county commissioners where these projects are located. If you have any questions, please feel free to contact me.

Sincerely,


James A. Posewitz, Administrator
Ecological Services Division

sd

Encs

cc: Water Quality Bureau
Department of Highways
Division of Architecture & Engineering
County Commissioners: Lewis & Clark County
Meagher County/Wheatland County
Rosebud County
Gallatin County

FG-N-98

PRELIMINARY ENVIRONMENTAL REVIEW

FOR

WILLOW CREEK RESERVOIR

Augusta, Montana

Project No. 30-00473

PARKS DIVISION

MONTANA DEPARTMENT OF FISH AND GAME

August, 1978

I. DESCRIPTION OF THE PROPOSED ACTION

A. Summary

Willow Creek Reservoir has become an increasingly popular recreation area over the past few years. Because of the increasing popularity of the reservoir for recreation purposes, the Parks Division of the Montana Department of Fish and Game proposes to add a boat ramp, roadway and parking area, double latrine, signing and camping road with head-in parking.

Willow Creek Reservoir, located in Lewis and Clark County, has the potential for serving a large member of recreationists due to its accessibility from Great Falls.

Currently, the site is partially developed and receives heavy use throughout the summer season. This request for financial assistance is preceded by a need for more and improved facilities. The proposed facilities will allow greater use of an area that is currently receiving more use than it can handle without resource damage. The quality of recreation environment at Willow Creek Reservoir depends on the proper development of facilities.

Contracts will be let in 1979 to allow construction to begin during the fall construction season.

Lewis and Clark County has a 1975 population estimate of 36,400. Cascade County borders Lewis and Clark County and had a 1975 population estimate of 84,700. Due to the location of this recreation area and the use that it has received, extensive continued use is anticipated.

There is no relationship between this project and other work planned or underway with federal assistance. There are no historic or archaeological sites located on or near the reservoir as listed in the National Register of Historic Places. An archaeologist will inspect the site prior to any construction.

This PER addresses the probable effects that additional development at Willow Creek Reservoir will have upon the existing environment.

B. Proposed Development Plan

1. Boat Ramp Area

- a. Roadway leading to boat ramp.
- b. Turn around and parking area.
- c. Double latrine
- d. Signing

2. Camping area south of boat ramp

- a. Camping road with head-in parking.

C. Construction Methods and Design Construction

Roadways and parking areas will be designed with a minimum of cut and fill and will maintain cross-slope drainage whenever practical.

The double latrine will consist of a sealed fiberglass tank and a deck with a wood superstructure.

Wooden barrier posts will be used to control traffic and prevent off-road problems.

II. DESCRIPTION OF THE ENVIRONMENT

Located in Northern Lewis and Clark County, Willow Creek Reservoir measures approximately 2½ miles long and covers 1,900 acres. It is easily accessible and can be reached by turning off Highway 21 at Augusta, Montana and following a well marked county road.

Water:

The water table is presumed to lie at or just below the reservoir level.

Willow Creek Reservoir is a Bureau of Reclamation impoundment on Willow Creek and was completed in 1911. It has a useable capacity of up to 32,000 acre-feet. A supplemental supply to the reservoir is diverted from the Sun River. Water quality in this area is generally considered to be quite good. No significant sources of pollution exist in the area.

Fish:

Rainbow Trout comprise the principal game species sought by Willow Creek Reservoir fishermen. The reservoir is periodically stocked by the Department of Fish and Game. Non-game fish inhabiting Willow Creek Reservoir include longnose and white suckers and carp.

Game:

Willow Creek Reservoir includes a waterfowl nesting area that covers approximately 1,500 acres. Many migratory species of birds use this area as well as local species.

Many big game animals winter on the tablelands surrounding Willow Creek Reservoir. Permanent residents would include antelope, deer, coyotes and small mammals.

Vegetation:

Plant life around Willow Creek Reservoir falls into the semiarid wheatgrass classification. These would include blue gramma, needle and thread, blue bunch wheatgrass and cheatgrass brome. Other types of vegetation found are thistle, legumes and prickly pear.

Geology:

Tablelands and benches of varying age and elevations occur around Willow Creek. The sandstone and shale ridges surrounding the reservoir are often capped with glacial drift. These sandstone and shale members are of the Mississippi era. The principal soils are brown loam and clay loams and are quite often stony.

Air Quality:

No significant local sources of air quality degradation are present.

Land Use:

The majority of lands bordering Willow Creek Reservoir are devoted to livestock grazing. There are several summer home sites in the surrounding area.

Climate:

The climate in this area is generally moderate to cool. Daytime temperatures in the summer months seldom exceed 90 degrees. Winter temperatures are quite cold, but are occasionally warmed by Chinook winds. The reservoir surfaces freezes over during winter months. Snow depths will accomodate from 18 inches to 2 feet and winter winds cause drifting problems.

Average annual temperatures at Augusta is 42.2 degrees F. The highest recorded was 103 degrees F. and the lowest, -51 degrees F. Average annual precipitation is 13.59" and the average frost free season is 104 days.

Population:

Lewis and Clark County had a 1975 population estimate of 36,900 and Cascade County had an estimate of 84,700. The majority of recreationists reside within these counties.

Historic and Archaeologic Sites:

No known historical sites exist in the area as listed in the National Register of Historic Places. An archaeologist will visit the site prior to construction.

III. ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION

Minor impacts will be made on water quality due to the boat ramp placement.

Fish and animals will be affected to a minor degree.

Less than one acre of vegetation will be destroyed due to construction activities.

Air pollution will occur as the result of dust from road construction, traffic over new roads and exhaust fumes.

An increase in use will bring an increase in noise levels.

Installation of the sealed tank double latrines will practically eliminate any problems with sewage. Litter will always be a problem created by thoughtless individuals and a negative impact upon the beauty of the area.

Problems associated with vehicle and pedestrian traffic will increase.

There will be no historic or archaeological impacts of significance due to this proposed project.

The economic effect of the proposed facilities at Willow Creek Reservoir appear to be minimal.

IV. PLANNED MEASURES TO MINIMIZE ADVERSE ENVIRONMENTAL IMPACT

All areas of vegetation disturbed by construction of new facilities will be reseeded.

Air pollution from dust will be reduced by sprinkling during construction and surfacing for future use.

All structures and improvements will be designed, located and constructed to conform with the surrounding environment. Road developments will be designed to fit into the natural terrain as much as possible. Cut and fills will be kept to a minimum with backslope as flat as practical. Most areas will be sheet drained so that natural drainage is preserved.

Sealed tank latrines will be used to eliminate any conflicts between water quality and sewage wastes. The latrine will be installed well above the groundwater table.

V. UNAVOIDABLE ADVERSE IMPACTS

Despite efforts to minimize its adverse effects, the proposed project will still cause:

- a. Increased levels of road dust, exhaust emissions and noise.
- b. Contribute to soil disturbance and compaction.
- c. Displace the vegetation from a small area.
- d. Bring occasional problems with litter and vandalism of public property.

VI. RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Construction work at Willow Creek Reservoir will cause various short-term disruptions of the environment - increases in dust, exhaust emissions and noise and disturbances of vegetation and soil.

These short-term disruptions must be viewed against the long-term productivity of quality recreational facilities for future generations.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The area will be committed to recreational use in perpetuity, under the terms of the Federal Land and Water Conservation Fund agreements. Therefore, the potential for other uses of the property will be eliminated. Fuels consumed by the construction equipment, paving, materials, and funding used for the project are irretrievable.

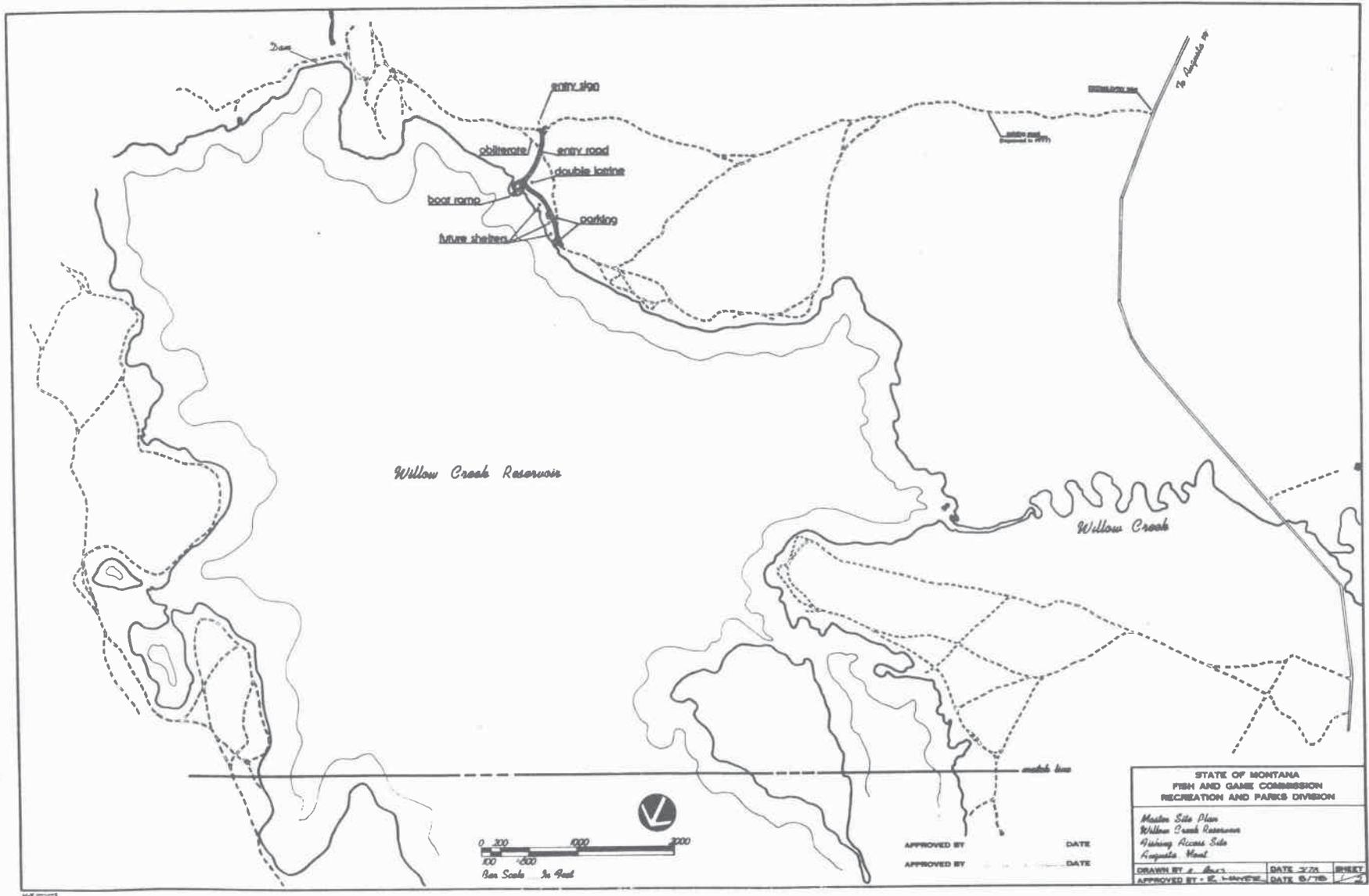
VIII. ALTERNATIVES TO THE PROPOSED ACTION

A. No Action

One option the Department of Fish and Game has is to leave the development of Willow Creek Reservoir as is. This option would create impacts ranging from the over use of facilities, uncontrolled use of the entire area and unsanitary conditions to the loss of recreational opportunity.

B. Design Alternatives

The plan could also be adjusted by implementing the range of design options from little or no development to more than is now shown. Neither extreme is a sensible answer. If the recreation area is basically left as is, over use of the facilities will cause a degradation in the quality of recreation. If the area is over-developed, monetary and environmental costs will outweigh the benefits to society.

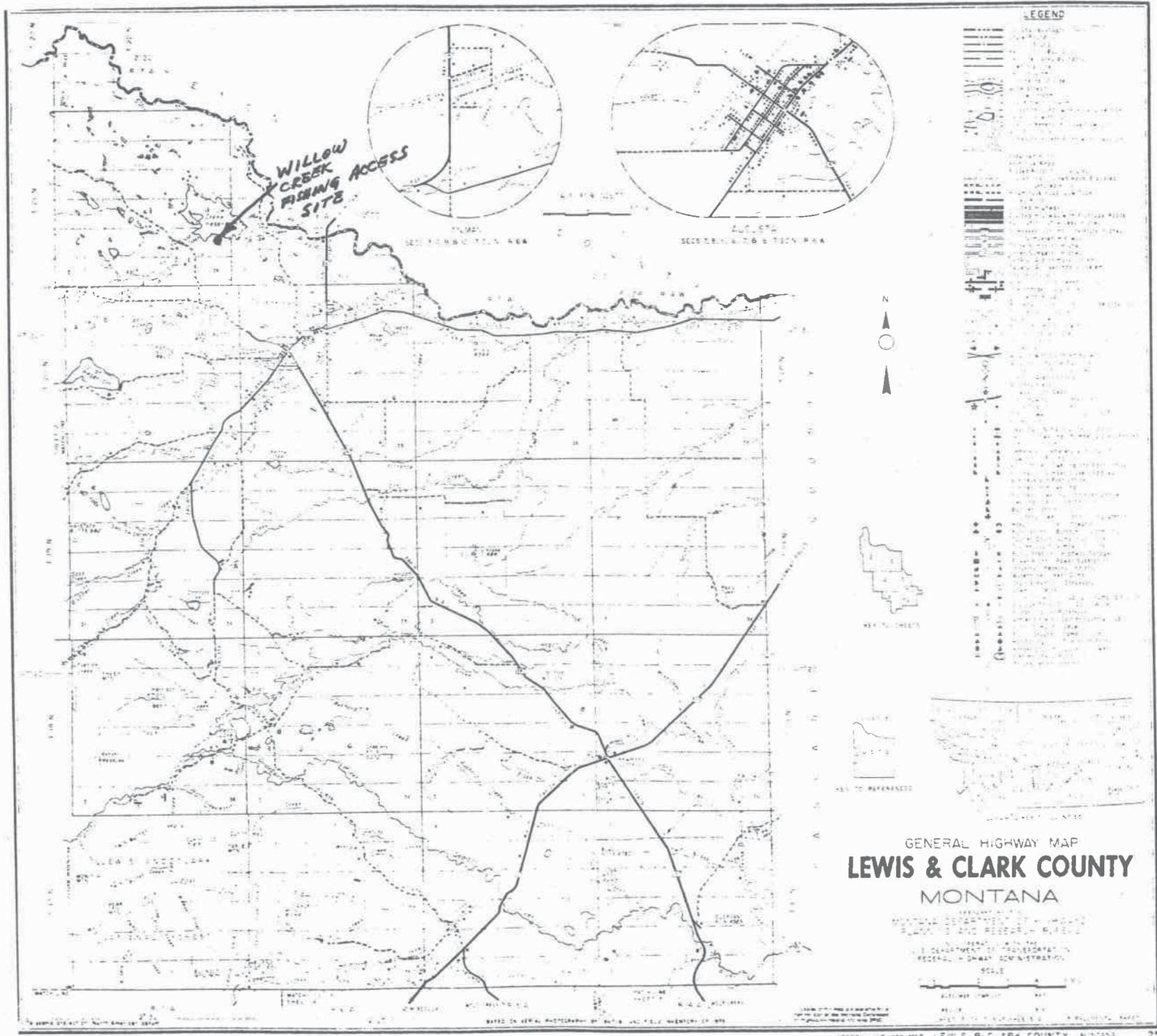


STATE OF MONTANA
 FISH AND GAME COMMISSION
 RECREATION AND PARKS DIVISION

*Master Site Plan
 Willow Creek Reservoir
 Fishing Access Site
 Riparian Wood*

DRAWN BY: *[Signature]* DATE: 2/78
 APPROVED BY: *[Signature]* DATE: 6/78

APPROVED BY _____ DATE _____
 APPROVED BY _____ DATE _____



WILLOW CREEK FISHING ACCESS SITE

LEGEND

GENERAL HIGHWAY MAP
LEWIS & CLARK COUNTY
 MONTANA

DEPARTMENT OF TRANSPORTATION
 FEDERAL BUREAU OF SURVEY
 U.S. DEPARTMENT OF COMMERCE
 RESEARCH AND ADMINISTRATION
 SCALE