

Report of

NORTH DAKOTA STATE WATER CONSERVATION COMMISSION 1301 State Capitol BISMARCK, NORTH DAKOTA

McGregor Dam and Recreation Area

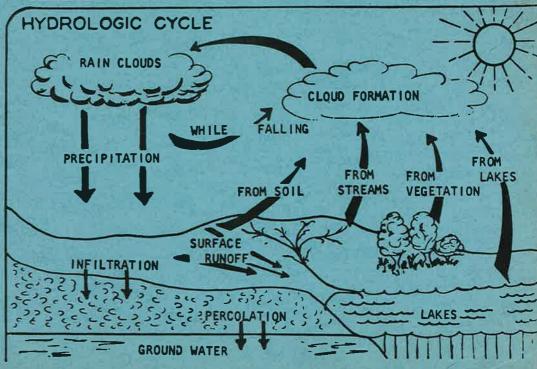
Williams County

SORA Project #53-12 (SWC Project #528 (BOR Projects #49 and #50)

Prepared in cooperation with the

Williams County Park Board
Sauk Valley Township
North Dakota State Game and Fish Department
North Dakota State Outdoor Recreation Agency

September 22, 1966



NORTH DAKOTA STATE WATER COMMISSION

Project Report

McGregor Dam and Recreation Area, Williams County SWC Project #528 - SORA Project #53-12 September 22, 1966

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DEPARTMENT OF THE INTERIOR LEAVE BLANK FOR BOR USE ONLY BUREAU OF OUTDOOR RECREATION Date Received Priority Project Number PROJECT PROPOSAL - ACQUISITION 33-66649 Project Officer Use this form for submission of individual projects for acquiring lands and waters or interests in lands and waters for public outdoor recreation purposes. If concurrent Development is being undertaken, check here SECTION 1 1. State or Territory 2. Name and address of agency responsible for project North Dakota State Game and Fish Department North Dakota Ft. Lincoln, Bismarck, North Dakota 58501 3. Project Title McGregor Dam and Recreation Area - SORA Proj. #53-12 4. Brief description of project 226 acres of land, primarily pasture at present, is to be acquired. 60 acres will be used for a reservoir, 80 acres for wildlife habitat and the balance for access roads, parking, and recreation facilities. The land is in private ownership and is to be purchase in fee simple. Flood easements will be acquired for 2 acres. Land is located in Section 22, Township 159 North, Range 95 West, Williams County. SWC Proj. #528 6. Federal assistance requested 5. Duration of project 7. Recommended priority from4-1-66to 6-30-66 \$7,000 8. Name, Organization, and Title of individual having day-to-day respon-9. Name and Address to appear on check sibility for direction of project Russell Stuart, Milo W. Hoisveen, State Fiscal Commissioner, State Game & Fish Department, -Officer, 1301 State Capitol, Ft. Lincoln, Bismarck, North Dakota Bismarck, North Dakota 10. TERMS AND CONDITIONS: In submitting this Project Proposal, the State hereby accepts the Terms and Conditions set forth in the BOR Grants-in-Aid Manual, which will be a part of the Project Agreement for any grant awarded under this proposal. 11. CERTIFICATION: As the official designated to represent intention to finance its share of the costs of this project. the State and act for the State for purposes of the Land The Applicant will not discriminate against any person on and Water Conservation Fund Act, I recommend that the basis of race, color, or national origin in the use of assistance be made available from the Fund, when monies any property or facility acquired or developed pursuant to are available, in accordance with the recommended priority. this proposal, and shall comply with the terms and intent No financial assistance has been given or promised under of Title VI of the Civil Rights Act of 1964, P. L. 88-354 any other Federal program or activity with regard to the (1964), and of the regulations promulgated pursuant to such proposed project. The State or public agency to be re-Act by the Secretary of the Interior and contained in sponsible for the proposed project has the ability and 43 CFR 17. (Signature) (Name) (Date) (Tatle) 13. For State une 7 SORA

BOR 8-90 (August 1965)

1 Game & Fish
1 Water Comm.
1 Williams Co.
1 Sauk Valley Twp.

| c = | \sim T | ION | 11 |
|-----|----------|-----|----|
| | | | |
| | | | |

1. Nature and Extent of Use - A. For entire area in which acquisitions are to be made:

Most of land is now used for pasture.

B. For area to be acquired:

Dam and recreation facilities are to be installed in accordance with accompanying BOR form 8-91 and attachment.

| 2. BOR Clas | | of area 3. | Check one X New Site | | 4. Location | lams Town | McGrager |
|--|--|-------------------------------------|-------------------------------|-----------------------------|--|-----------------------------------|----------------|
| Recr | eation | | Addition to ex | isting site | Town population | Town | om Town |
| Total acre | | qui red 6, | Cover, acres in | | | | |
| - | 226 | | A. Forest | B. Rock _ F. | C. Cutove | r D. : | Swamp |
| 7. Topography A. Flat _ C. Rolling | B . 1 | Hilly Mountainous | 8. Waterfront, fee B. Lake | et on A. Oce 800 C. Stre | 9. Road A. I B. C | front, feet on | C. Paved |
| PARCEL NUMBER | ACRES | ESTIMATED VALUĘ | | ESTIMATEI VALUE | | APPROX. DATE OF ACQUISITION | TOTAL VALUE |
| NE #22 | 77 | \$4,809 | | | Purchase | 4-66 | \$4,809 |
| SE422 | 67 | 4,190 | +1 - + + E 1 | • | Purchase | 4-66 | 4,190 |
| EZSW422 | 80 | 5,000 | - | - | Purchase | 4-66 | 5,000 |
| NW 427 | 2~ | | <u> </u> | • | Easement | 4-66 | |
| FO DE | OR CONCUR EVELOPMEN | RRENT ACQUIS | ITION AND UBMISSIONS | | TOTAL ESTIMA | TED VALUE \$ | 14,000 |
| | | acquisition valu development cos | | Amount of assistan | Federal acquisition | -1 $t_{\rm c}$ | 7,000 |
| TOTAL 97,200 Total amount of Federal assistance requested 48,600 | | | | | remainder of funds | ah Danaut | |
| Agency, S1 | under of fun Late Wåte Buk Valle | ds State Out or Commissi | door Recreation, Williams | on Will | e Game and Fi lams County Valley Towns | | nt |

SECTION 111 - ATTACHMENTS

See BOR form 8-91 and attachments.

Attach, by reference number, the following supplemental documents necessary to process this Acquisition Project Proposal:

- A-660-1 Project justification. A. Description of how the proposed project is in accord with the State outdoor recreation plan and would help meet priority needs identified in the plan. Indicate how the natural beauty of the area will be preserved. B. Indicate other organizations consulted during formulation of this proposal. C. Plans for Operations and Maintenance.
- A-660-2 Maps and Charts. A. Simple plot plan or map showing the total area to be acquired and its relationship to the surrounding area. Annotate any plans for streets, highways, waterlines, sewers, etc. to be located on or near the involved area. (Key to show location within State, County, or city.)
 B. Description of any improvements on lands to be acquired.
 C. Description of all legal rights to be held by applicant and any other person or organization.
- A.-660.-3 Agreements. A. Agreements or arrangements made with other organizations for participating in the project, or in later operation and maintenance of the completed project.

The items shown below need not be submitted with the project proposal. However, during the course of execution of an approved project, the applicant should be prepared to submit them to the Bureau for review, as follows:

- A-660 of Appraisal reports and other documentation of cost.
- A-bb0 -5 Satisfactory evidence of title (such as an opinion by the State Attorney General) for each parcel.
- A=660 6 Five-year history of conveyances for each purcel listed in project proposal (name of parties involved, dates, interest conveyed and consideration).

| DEPARTMENT OF THE INTERIOR | ₹ | 1 | TPM | |
|--|--|---|--|---|
| BUREAU OF OUTDOOR RECREATION | Date Received | VE BLANK | FOR BOR USE ONLY | |
| PROJECT PROPOSAL - DEVELOPME | Date Received | Priority | Project Number | |
| | • | Project Officer | | 33-00050 |
| | - | 1 | | |
| Use this form for submission of individual project develop lands and waters to facilitate their use for outdoor recreation. If concurrent Acquisity undertaken, check here | by the public | | | 9 |
| | SECTI | ON 1 | | |
| State or Territory 2. Name and address of | f agency respo | nsible for project | | |
| North Dabote Ft. Lincoln, | | | 50501 | |
| 3. Project Title | | | | |
| Brief description of project | | | | |
| privately camed with an develop round recreational use. About for a wildlife habitat. Locati Range 95 West, Willeam County, McGregor, | 60 ecres o | fluest enti- project in | resible t metion 2 | and is to be developed 2. Turnship 159 Morth |
| | | | | ant Proj. #528 |
| Duration of project 6. Federal assist from 5. 6. Federal assist | | | | 7. Recommended priority |
| Name, Organization, and Title of individual has sibility for direction of project | ving day-to-day | | me and Addre | ss to appear on check |
| Countssioner, North Debote 50 | into Geno 6 | Fish | officer. | bisvabn, State Fiscal 1301 State Capital |
| Department, Ft. Lincoln, Disa | mrch, ii. i | ak. | Bismurck, | Horth Delete 5850 |
| TERMS AND CONDITIONS: In submitting this in the BOR Grants-in-Aid Manual, which will be | Project Propose a part of the 1 | al, the State here Project Agreemen | by accepts th t for any gra | ne Terms and Conditions set fort ant awarded under this proposal |
| CERTIFICATION: As the official designated to the State and act for the State for purposes of and Water Conservation Fund Act, I recommon assistance be made available from the Fund, we are available, in accordance with the recomment No financial assistance has been given or promany other Federal program or activity with reproposed project. The State or public agency sponsible for the proposed project has the | of the Land nmend that when monies ded priority. nised under gard to the y to be re- | The Applicant the basis of any property of this proposal, of Title VI of (1964), and of | will not disc race, color, or or facility acc and shall co the Civil Rig the regulation | are of the costs of this project. Triminate against any person on a national origin in the use of quired or developed pursuant to mply with the terms and intent that Act of 1964, P. L. 88-354 as promulgated pursuant to such the Interior and contained in |
| (Signature) | , succ | - | | (Name) |
| | | | | |
| (Date) | = | - | · //// | (Title) |
| For State use 7 SUMA 1 Game & Flack 1 Water Conn. 1 Williams Co. 1 Sauk Valley Top. | | 8 | | |

BOR 8-91 (August 1965)

SECTION 11 - TABULAR SUMMARY OF PROJECT ELEMENTS AND COSTS

Identify the phase or element of the Development Project suggested by the line items. Indicate additional breakdown of work elements necessary and desirable to allocate work assignments and costs.

| | DAT | E OF | | TOTAL ESTIMATED COST Amount of Federal development assistance requested | | COST | s \$3,200 |
|---|----------------|-----------------|-------------------|---|------------------|---------------------------|---------------------------------|
| | BEGIN- NING | COMPLE- TION | ESTIMATED COST | | | nt | 41,600 |
| DEVELOP SITE PLANS & SPECIFICATIONS | | | | Source of remarks to the law to | ainder of funds | dilliana Gene & | County, Sauk Fish Department |
| A. | 10-1-64 | 3-1-66 | 3,000 | | foor Retros | tion Age | sty, State Water |
| В. | | | | Commits for | P | | |
| DEVELOP CONSTRUC- TION PLANS AND SPECIFICATIONS | | • | | FOR CONC | | ISITION AND SUBMISSION | DEVELOPMENT S |
| A. | 6-1-65 | 4-30-6 | 3,000 | Total estimat | ed acquisition v | alue | s 1000g |
| В. | | | | Total estimat | ed development | costs | 5 83-299 |
| PREPARE SITE | | | | | | TOTAL | \$ 37,200 |
| THE STILL | | | | Total amount of Federal assistance \$ | | \$ | |
| Α. | 5-13-66 | G= ()=00 | 77,200 | requested | | | 46,60) |
| B. | | | | Source of rem | ainder of funds | Cata wat | er Lobbission Retriev |
| UNDERTAKE CON- STRUCTION | | | | tion Agen | | | nahip, Williams |
| Α. | | | | County | | | |
| В. | | | | SIZE IN ACRES OF ENTIRE AREA OR PARK SIZE IN ACRES OF AR TO BE DEVELOPED UNDER THIS PROPOSE | | ACRES OF AREA | |
| OTHER | | | | | | | |
| Α. | | | | Land | Water | Land | Water |
| В. | | | | 100 | - | 100 | 23 |

SECTION 111 - ATTACHMENTS

Attach, by reference number, the following supplemental documents necessary to process this Development Project Proposal:

- D-660-1 Project Plan and Justification. A. Description of how the proposed project is in accord with the State out-door recreation plan and would help meet priority needs identified in the plan. B. Summary of area, its nature and relation of development to the area. Indicate how the natural beauty of area will be enchanced. C. Descriptive outline of proposed accomplishments with funds requested. Indicate contemplated other uses of the area. D. List of names of organizations which will undertake the development and how this will be performed. E. Economic feasibility data, or other types of data to indicate extent and kind of use to be made of the completed area or facility. F. Plans for operations and maintenance.
- D-660-2 Maps and Charts. A. Simple site plans or maps showing total area, in addition to area to be developed. Annotate to show plans for, or existing streets, highways, waterlines, sewers, etc. to be located on or near the area. (Key to allow location within State, County, or city.) Indicate uses now made of the area by applicant or other agencies or individuals. B. Description of all legal rights to the area to be held by applicant and any other person or organization.
- D-660-3 Agreements. A. Agreements or arrangements made with other organizations for participating in project, including operation and maintenance of completed facility.

The terms shown below need not be submitted with the project proposal. However, during the course of execution of an approved project, the applicant should be prepared to submit them to the Bureau for review, as follows:

- D-660-4 *Plans*. A. Site plans, specifications and cost estimates. B. Construction plans, specifications and cost estimates. These *must* be submitted for review and approval before construction may proceed on a structure to cost in excess of \$100,000.
- D-660-5 Contracts. A. Copies of pertinent contracts, as specifically required by the Bureau of Outdoor Recreation

NORTH DAKOTA STATE WATER COMMISSION

Project Proposal-Development

March 22, 1966

McGregor Dam and Recreation Area, SORA Proj. #53-12 SWC Proj. #528

D-660-1 Project Plan and Justification:

- A. McGregor Dam and recreation area will be located in Section 22, Township 159 North, Range 95 West, Williams County, North Dakota, one mile south of McGregor and 16 miles north of Tloga. The project will provide year round recreation facilities meeting the recreation demands of Williams and adjacent county residents for such facilities. Multi-use projects are of highest priority in the State Plan. This project is to provide facilities for swimming, boating, fishing, ice-skating, picnicking, camping, sledding, skiing and playgrounds along with a wildlife habitat.
- B. A deep coulee adjacent to State Highway #40 provides an excellent dam site for creating an 800 acre-foot reservoir with a 10 square mile drainage area. Adjacent lands are level and suitable for camping and picnic areas, parking and flower plantings. A slope north of the dam's west abutment is suitable for sledding and skiing. Landscaping is planned for enhancing natural beauty as well as usefulness. About 80 acres across the reservoir from the park area is to be developed by the State Game and Fish Department for wildlife habitat.
- C. With the funds requested, approximately 226 acres of land will be purchased, engineering plans prepared, a dam constructed, and recreation facilities provided. Detailed estimates on the dam and facilities are included with the proposal.
- i. The State Game and Fish Department will purchase all necessary lands and/or easements and develop the wildlife habitat area. Recreation area development lands will be leased to the Williams County Park Board. Fisheries

management is to be provided by State Game and Fish Department specialists.

- 2. The State Water Commission will provide engineering services to survey the area and provide necessary plans. They will also construct the dam through contractors based on competitive bids and assist in constructing recreation facilities.
- 3. The Williams County Park Board and Sauk Valley Township board will provide the recreation facilities and construct access roads in cooperation with the State Water Commission.
 - 4. Proposed cost sharing on the project is as follows:

| Item | BOR | SWC | SORA* | <u>G&F</u> | WMS.CO. | Sauk Valley Twp. | Total |
|-----------------------|--------------------|-------------------|------------------|----------------|-------------------|---------------------|--------------------|
| a.Land Acquisition | \$7,000 | \$ - | \$ - | \$3,500 | \$ - | \$3,500 | \$14,000 |
| b.Englneering | 3,000 | 3,000 | - | - | • | ~ | 6,000 |
| c.Dam Construction | 27,000 | 10,000 | - | 9,000 | 8,000 | - | 54,000 |
| | 11,600 \$48,600 | 3,000 \$16,000 | 4,100 \$4,100 | \$12,500 | 4,500 \$12,500 | \$3,500 | 23,200 \$97,200 |

* SWC allocation

- E. The "project economic feasibility report" indicates a benefit-cost ratio of 1.31 to 1.
 - a. Demographic data Population within a 30 mile radius of the project is 15,000. In 1960 Williams County population was 22,051. Total labor force participation rate 1s 55.9% compared to a 53.1% state average. Median income per family in Williams County is \$5,432 compared to a \$4,530 state average.
 - b. Taxable valuations Williams County with a 2,162 square mile area has a taxable valuation (1963) of \$24,645,364.
- F. Sauk Valley Township has a water permit, approved by the State Water Commission on March 18, 1966, for 760 acre-fact of storage plus 150 acre-fact annual use for the McGregor Dam and recreation area project.

- G. Agreements for participation in the project costs are in the process of being signed in accordance with the allocation schedule shown in part D above.
- H. The Sauk Valley Township and Williams County Park Board will operate and maintain the recreation area and facilities.

E-660-2 Maps and Charts

- A. Maps included with the project proposal are:
 - 1. Aerial photos of area
 - 2. State map locating project
 - 3. SWC map 6021-528-5A "Reservoir topography and purhcase line"
 - 4. SWC map 6022-528-7A "Dam site topog and layout"
 - 5. SWC map 6521-528-12 "Recreation area and facilities"
 - 6. SWC map 6355-528-10 "Elevation view and overflow pipe detail"
 - 7. SWC map 6366-528-11 "Elevation view and drain pipe detail"

Prepared by:

Jim Schulz, Assistant Secretary North Dakota State Water Commission

MCGREGOR DAM

SWC #528

COST ESTIMATE

| Mobilization 220 miles @\$8,00 | | \$1,760 | |
|--------------------------------|---------------|---------|--------------------|
| Site Preparation | | 100 | A |
| Water Control | | 700 | \$2,560 |
| Pipe Outlet | | | |
| 1801-30" conc. pressure | pipe @\$17.00 | | 3,060 |
| 101-60" reinf. concrete | | | 300 |
| 12!-48" reinf. concrete | | | 240 |
| 3 cu. yds. concrete @\$ | | | 300 |
| RCP Installation | .00.00 | | 400 |
| Miscellaneous | | | 500 |
| Miscerraneous | | | 200 |
| 6" Drain | | | |
| 2251-6" pipe @\$3.00 | | | 675 |
| Valve-installed | | | 200 |
| e 7 1 7 | | | V = 8.5 |
| Embankment | | | 2 |
| 58,484 cu∙yd• fill @35¢ | | | 20,470 |
| 9,033 cu.yd. core @50¢ | | | 4,517 |
| 1,574 cu.yd. core excava | tion @25¢ | | 394 |
| Pinran | | | |
| Riprap 1,980 cu.yd. @\$4.00 | | | 7 000 |
| 200 cu.yd. gravel @\$2.00 | | | 7,920 |
| 200 cu.yu. graver @\$2.00 | | | 400 |
| Miscellaneous | | | 000 |
| | | | 800 |
| Seeding | | | 150 |
| Cleanup | | | 400 |
| | | | \$43,286 |
| Engineering and Supervis | ion 10% | | 4,329 |
| Contingencies and extras | | | 3,450 |
| Overhead (10% engr. & 5% | other) | | 2,935 |
| | | | \$54,000 |
| | | | 451,000 |

SWC Project #528

Facilities Desired:

| tem | 1 | | Number | Estimated Unit Cost | Estimated Total Cost |
|-----|----------|----------------------------------|---|------------------------|--|
| • | Picr | nic Areas | | | |
| | a. | Tables Shelter | 8 1 | \$ 40 800 | \$320 800 |
| | b. с. | Fireplaces | 4 | 35 | 140 |
| | d. | Trash Receptacles | 4 | 15 | 60 |
| | e. | Well | 1 | 1,500 | 1,500 |
| | f. | Flag pole | 1 | 100 | 100 |
| | Swin | mming Area | | | |
| | a. | Beach | 2 | .10 | 420 |
| | | Top soil exc. | 4,200 yds3 | | 1,000 |
| | | Sand fill | 2,000 yds | .50 | |
| | ь. | Rest Room-Bathouse (combination) | 1 | 2,000 | 2,000 |
| | c. | Diving Raft | 1 | 800 | 800 |
| | d. | Life Guard Tower | 1 | 500 | 500 |
| | Boa | ting Area | | | |
| | à. | Dock | 1 | 500 | 500 |
| | b. | Launch Pad | 1 | 1,000 | 1,000 |
| ŧ. | Pla | y Ground Equipment | | | |
| | a. | Swing set | 1 2 | 230 | 230 460 |
| | b. | Slide | 2 | 230 | 400 |
| 5. | Ger | neral Area Development | | | |
| | a. | Grade and gravel | 1,5001 | \$2.50 | \$3,750 |
| | | | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | (1) 2002 | • • • • • • • • • • • • • • • • • • • |
| | ь. | Grade and gravel turn offs | 5001 | 1.50 | 750 |
| | | Grade and gravel | | | |
| | C. | parking areas | 1,000 yds ³ | 2.00 | 2,000 |
| | d. | Surface road | 7001 | 18,800.00 per | /mi 2,500 |
| | e. | Blade ski slope | 500° | .20 | 100 |
| | f. | Ski lift | 1 | 900.00 lun | np sum 900 |
| | | | | Sub-Total | \$ 20,000 |
| | | | | Engineering | 2,000 |
| | | | | Indirect Cost | 1,200 |
| | | | | Total | \$ 23,200 |

NORTH DAKOTA STATE OUTDOOR RECREATION AGENCY Project Economic Feasibility Report Benefit-Cost Ratio

| Proje | ct_ | MCGREGOR DAM AND RECREATION AREA | | | |
|-------|-----|--|---------|------------|-------|
| Locat | ion | (Co.) Williams | SORA | #53-12 | |
| I. | BAS | IC DATA | | | |
| | A. | Radius of anticipated use - | | 30 | miles |
| | В. | Population within use area - | | 15,000 | |
| | C. | Anticipated annual visitation - | | 20,000 | |
| | D. | Investment (include land) - | \$_ | 97,200 | |
| | E. | Estimated life of facilities - | _ | 30 | years |
| II. | ANN | UAL COSTS | | • | |
| | Α | Operation and Maintenance - | \$_ | 3,000 | |
| | В. | Depreciation (I.D : I.E) - | \$_ | 3,240 | _ |
| | c. | Total annual costs - | \$_ | 6,240 | |
| III. | ANN | UAL BENEFITS | | | |
| | A. | Assumed value per visitation - | \$_ | 1.00 | _ |
| | В. | Est. Annual Benefits (III.A x I.C) - | \$_ | 20,000 | |
| | c. | Average Annual Net Benefits - (III.B - II.C) | \$_ | 13,760 | - |
| IV. | BE | NEFIT-COST RATIO | | | |
| | Α. | Factor for value of I. compounded 30 yrs. @ 4 % = (Standard - 30 yrs. @4% = 3.24339751) | | 3.24339751 | _ |
| | В. | Product of Investment (I.D) x factor (IV | .A) -\$ | 315.258 | _ |
| | c. | Total benefits (III.C x I.E) - | 100 | 112.800 | _ |
| | D. | Benefit-cost ratio (IV.C : IV.B) - | | 1.31:1 | |
| | | | | | |

Green Form - D-660-1.E

NORTH DAKOTA STATE WATER COMMISSION

OFFICE MEMO

TO: FROM: Milo W. Hoisveen, Chief Engineer Hazen A. Sandwick, Office Engineer

SUBJECT:

McGregor Dam, Project #528

DATE:

December 2, 1965

It has been proposed that the water level of McGregor Dam be raised above the planned elevation (2258' MSL). It appears that further raises may result in eventual low quality of water due to the fact that it may not be changed often enough to prevent a build up of undesirable materials in the water.

The following information has been obtained from the U. S. Geological Survey office in Bismarck.

In one year out of two therunoff equals or exceeds 35 A.F. per sq.mi.

In one year out of four the runoff equals or exceeds 49 A.F. per sq.mi.

In three years out of four the runoff equals or exceeds 18 A.F. per sq.mi.

In nine years out of ten the runoff equals or exceeds 9 A.F. per sq.mi.

For this dam with nine square miles of contributing area we can assume that the average runoff into the reservoir would be 315 acre-feet. That would make the average annual spill over the spillway about 143 acre-feet if the water surface is held at elevation 2258! MSL or about 63 acre-feet if the control water surface is set at 2264! MSL. At the higher elevation the water in the reservoir would change once in twenty years. At the lower elevation it should be changed once in every five or six years. The dam would fill to elevation 2258! MSL in three average years and to 2264! in seven or eight average years. Variations can be expected from the above quoted figures. If the runoff is not what is considered average or if the evaporation is above or below 36! annually.

Hazen A. Sandwick Offfice Engineer

HAS:kI
Dist.
MWH (SWC #528), HAS, VEZ

Mr. John Greensilt
State Limison Officer
State Outdoor Recreation Agency
State Cepitol
Gissarck, North Dakota

RE: McGregor Dam and Recreation Complex, SMC Project #528 - SORA Project #53-12
Dear Mr. Greenslit:

At a recent meeting with Bureau of Outdoor Recreation officials in our office, they requested additional information concerning the McGregor Dam and Recreation Complex project proposel.

- 1. Hydrology report The 800 acre-feet reservoir, proposed, has a drainage area of 10 square miles. The average annual runoff into the reservoir will be 315 acre-feet according to information obtained from the United States Geological Survey in Sismarck,
- 2. An explanation of the 8 foot freeboard between the emergency spillway and the pipe spillway: The eight foot zone in the reservoir between the elevation of the crest of the principal spillway and the crest of the emergency spillway is planned to absorb the maximum flow enticipated over the spillway once every 25 years. This will protect the emergency spillway from regular use and the erosion which would result. The cost of a small principal spillway and the control zone to protect the emergency spillway is considered to be less than the cost of a principal spillway which would handle all the enticipated maximum flows. Since there has been no appreciable flood damage below the damsite, no flood control benefits can be assigned to the project.
- 3. Evaporation and Water Rights: A permit to divert and appropriate water for this project has been granted. It allows 760 acre-feet of storage and 150 acre-feet of annual use. The 150 acre-feet of annual use should be sufficient to maintain the reservoir since evaporation will be the main factor in depicting the reservoir. The soils in the vicinity of the reservoir are very watertight and seepage losses are expected to be small. Evaporation in this area will be between 36" and 46" annually. Reinfall averages close to 16" annually to make the not evaporation 20" to 30". Using the maximum figure (2½ feet) we will get a maximum not evaporation from the reservoir of 140 acre-feet. Therefore, the 150 acre-feet of annual use should be sufficient to maintain the reservoir.

| Dist. SWC Proj.# 528 SWC Acct. A G R E E M ! | SWC Proj. # 528 E N T |
|--|--|
| CONSTRUCTION O | F WORKS |
| THIS AGREEMENT is entered into by an | d between: |
| (1) The North Dakota State Water Co | mmission, hereinafter referred to |
| as the Commission, acting by and through | , Milo W. Hoisveen, Secretary and |
| Chief Engineer; | |
| (2) TheState Outdoor Recreation . | Agency, hereinafter referred to |
| as the Agency , acti | ng by and through Milo W. Hoisveen, |
| Executive Officer; (title) | |
| (3) The <u>State Game and Fish Depart</u> | ment, hereinafter referred to |
| as the, acti | ng by and through Russell W. Stuart, (name) |
| Commissioner ; (title) | |
| (4) The <u>Sauk Valley Township Board</u> | , hereinafter referred to |
| as the Board, acti | ng by and through $\frac{\text{Donald McGregor}}{\text{(name)}}$, |
| Chairman (title) | |
| 1. Project, Locati | on and Purpose |
| WHEREAS, the parties to this Agreeme | ent propose to construct the following: |

McGregor Dam and Recreation area

, hereinafter referred to as the Project, located in Section 22, Township 159 North

Range 95 W. Williams County, North Dakota, the purpose of which is to provide public use outdoor recreation facilities.

NOW, THEREFORE, IT IS AGREED:

11. Drawings and Specifications

That the Project shall be constructed in accordance with drawings

SWC Form #42

(200-3/66)

| and specification | ons of the Com | mission | , | approve | ed by | | |
|---|--|---------------------|-------------------|-------------------|---------------|--|--|
| the Department | Agency | , a | nd | Board | , | | |
| which drawings | and specifications, | SWC map #'s 6021- | 528-5A | ; 6022 - 5 | 28-7A: | | |
| 6521-528-12; 6 | 5355-528-10; and 6366- | (describ 528-11. | | | | | |
| are by this ref | erence made a part of | this Agreement t | o the s | same for | ce and | | |
| | ey were incorporated | | | | | | |
| | III. Costs | and Allocations | | | | | |
| That the estimated cost of the various Project elements and their | | | | | | | |
| allocation to the Project participants shall be as follows: | | | | | | | |
| | nary Engineering and | | | Estimate | \$6,000 | | |
| | rth Dakota State Water | | | | 07 | | |
| | Commission - | \$3,000 | _ ^{or} _ | 50 | _ | | |
| 2 | The Contract of the Contract o | \$ | _ or _ | | _% | | |
| 3 | | \$ | _ or _ | | _% | | |
| 4. Bu | reau of | \$ | _ or _ | | _% | | |
| 5. <u>Ou</u> | tdoor Recreation | \$ 3,000 | _ or _ | 50 | _% | | |
| B. Land a | nd/or Easement Acquisi | ition - Total Est | imate \$ | 14,000 |) | | |
| 1. No | rth Dakota State Water Commission - | r . | or | | % | | |
| 2 [| | \$ 3,500 | or | 25 | _% | | |
| _ | Department Board | \$ 3,500 | or | 25 | % | | |
| | Joan u | \$ | or | | ~ | | |
| 4 | Bureau of Outdoor Recreation | \$ 7,000 | or | 50 | —,° % | | |
| _ | | | | | | | |
| | ruction of Main Works | | 7 <u>54.0</u> | 00 | | | |
| 1. No | orth Dakota State Wate Commission - | \$ <u>10.000</u> | or | 18.5 | % | | |
| 2. <u>D</u> e | epartment | \$ 9.000 | _ or | _16.7_ | <u>%</u> | | |
| 3. <u>B</u> | oard | \$ 8,000 | or | 14.8 | % | | |
| 4 | | \$\$ | or | | % | | |
| 5. | Bureau of Outdoor Recreation | \$27,000 | or | 50 | % | | |

| D. | Cons | truction of Appurtenant W (Recreation facilities) | lorks - Total Esti | mate | \$ 23,200 |
|----|------|--|----------------------------|------|-----------|
| | 1. | North Dakota State Water Commission - | \$ 3,000 | or_ | 12.9 % |
| | 2. | Agency (WC allocation) | \$_4,100 | or _ | 17.7_% |
| | 3. | Board | \$_4,500 | or_ | 19.4_% |
| | 4. | | \$ | or _ | % |
| | 5. | Bureau of Outdoor Recreation | \$_11,600 | or - | 50 % |
| Ε. | Othe | er Items - Total Estimate | \$ | | |
| | 1. | North Dakota State Water Commission - | \$ | or . | % |
| | 2. | | \$ | or | % |
| | 3. | | \$ | or | % |
| | 4. | | \$ | or | % |
| | 5. | | \$ | or_ | % |
| F. | Tot | al Project Costs and Allo | ocations - \$ <u>97.20</u> | 0 | |
| | 1. | North Dakota State Water Commission - | \$ 16,000 | _ or | 16.5 % |
| | 2. | Agency (WC allocation) | \$ 4,100 | or | 4.2 % |
| | 3. | Department | \$ 12,500 | _ or | 12.8 % |
| | 4. | Board | \$ 16,000 | _ or | 16.5 % |
| | 5. | Bureau of Outdoor Recreation | \$ 48,600 | _ or | 50% |
| | | | | | |

That all parties shall provide the others with cost statements within 30 days after the Project's completion and settlements shall be made within 30 days of receipt of said statements.

IV. Title to Lands and/or Easements

That title to all lands and/or easements for the Project shall be

purchased in the name of North Dakota State Game & Fish Department by the

Department and recorded in the County Register of Deeds

office wherein the Project is situated.

V. Operation and Mai. enance

| That the Board | and Department | shall operate and maintain | | | | | | |
|--|---|--|--|--|--|--|--|--|
| the Project in accordance | with rules and re | gulations prescribed by the | | | | | | |
| Agency | | | | | | | | |
| <u>.</u> | /l. Indemnificatio | <u>n</u> | | | | | | |
| That the Board | | does hereby accept responsibility | | | | | | |
| for, and holds the Commi | ssion and the | Agency and Department harmless | | | | | | |
| from, all claims and dam | ages to public or p | rivate properties, rights, or persons | | | | | | |
| arising out of the const | ruction, operation, | and maintenance of the Project. In | | | | | | |
| the event a suit is init | the event a suit is initiated or judgment entered against the Commission or | | | | | | | |
| Agency and Department | the Board | shall indemnify them for | | | | | | |
| any settlement arrived a | t or judgment satis | sfied. | | | | | | |
| | VI. Changes in Re | esponsibilities | | | | | | |
| That changes in any | responsibilities of | f the parties hereto or conditions | | | | | | |
| herein stated will not b | e effective or bind | ding unless such changes or conditions | | | | | | |
| are made in writing, sig | ned by the parties | concerned and attached hereto. | | | | | | |
| | VIII. Other Stip | ulations | | | | | | |
| 1. Cost allocation qualification and fundi Fund Act. | s to the Bureau of ng by the Bureau th | Outdoor Recreation are based on assume nrough the Land and Water Conservation | | | | | | |
| 2, Total participa | ation by the Game an | nd Fish Department is limited to \$12,500. | | | | | | |
| 3. Agency commitme | ents are subject to | full Agency approval. | | | | | | |
| IN WITNESS WHEREOF, | the parties hereto | have signed this Agreement the | | | | | | |
| day and year indicated | below. | | | | | | | |
| WITNESS: | DATE: | NORTH DAKOTA STATE WATER COMMISSION By: | | | | | | |
| in the | April 7, 1966 | Secretary and Chief Engineer | | | | | | |
| | April 7, 1966 | NORTH DAKOTA STATE OUTDOOR RECREATION AGENCY By: Mule (W) Margare Executive Officer | | | | | | |
| Mec Belle: | Garil 21, 1966 | NORTH DAKOTA STATE GAMES FISH DEPARTMENT BY: SAUK VALLEY TOWNSHIP BOARD | | | | | | |
| | tan yaya na sasa | By: // 1/1 1/1 | | | | | | |

Permit No. 1351

Application for a Permit to Divert and Appropriate the Water of the State of North Dakota

| | Date | e received and filed in State Engineer's office February 11, 1966 - 2:30 p.m. | | | | | | | | | | = | | | | | | | |
|-----|---|--|---------|----------|--------------------|---------|-------------------|---------|----------|-----------|------------------|-------------|-------------|-------------|-------------|-------------|-----------|-------|--|
| | | | Sauk | Valle | woT v | nship | | | | | *) | | *********** | *********** | *********** | ••••••• | ounness. | *** | |
| k | addi for a ing i | Sauk Valley Township (Name of Applicant) Idress is | | | | | | | | s :- | | | | | | | | | |
| | | whi | ch is t | ributar | w to | rF | White Farth River | | | | | | | | | | | | |
| | 9 | which is tributary to White Earth River | | | | | | | | | | | | | | | | | |
| | 4. | 2. A. Amount of water requested 760 ac_=ft_storage = 150 annual use acre-feet annually | | | | | | | | | | | | Y | | | | | |
| | B. Proposed rate of withdrawal of water | | | | | | | | | | | | ł | | | | | | |
| | or as determined by ships with the stream of Diversion: | | | | | | | | | | | | | | | | | | |
| | | A. (1) NE 1/4 NE 1/4 Sec. 22 Twp. 159 Rge 95 | | | | | | | | | | | | | | | | | |
| | (2)SE | | | | | | | | | | | | | | | | | | |
| | (3) | | | | | | | | | | | | | | | | | | |
| | | B. If water is to be delivered from storage reservoir complete the following: and file NDSWCC Form 110 or 111: | | | | | | | | | | | | | | | | | |
| | Location of dam NE | | | | | | | | | | | | | | | | | | |
| | |] | Height | embar | ıkmeni | abov | e strea | ım həd | 4 | 7 | rwp | | Kge. | 95 | | | | | |
| | | . (| Capacit | y of R | Reservo | ir 7 | 60 60 | un bed | naro | foot | ۸ | rt | | | | | | | |
| | | Capacity of Reservoir | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | I | Propose | ed size | well o | r well | cacin | | De | pin to | top or | Aquii | er | •••••• | | | | | |
| | | I | las pu | mn tes | well o | nerfo | rmad | g | | De | epth to | Botto | m of A | quifer | • | | | | |
| | | (| Compu | ted car | t been | of avol | ımeu | •• | , 11 | so, by | whon | 1 | | ••••• | | | | | |
| | 4. | Purn | ose | ii | pacity of | dment | for | recre | ation | ********* | | ••••• | ••••• | •••••••• | | ••••• | | | |
| | | A. I | f purp | ose is i | mpound irrigati | on: | •••••• | | | ••••• | | | | ••••• | •••••• | | | | |
| | | Γ | ype of | irriga | tion sy | stem | | | | | To A restriction | Dates | of use | | | | | | |
| | | E | Stimat | e of tir | ne req | uired : | for cor | npletic | n of s | vstem | | Dutes | or use | | *********** | | | | |
| | 5. | Has 1 | the qua | ality of | water | analy | sis bee | en mad | e? | Judin | وواح | c wat | | *********** | | *********** | | | |
| | | Date | Daimp | ie iake | Π | | | | | | | | | | S | •••••• | ••••••••• | | |
| | 6. | Desc | ription | of lan | id to b | e irrig | gated (| show | lot nu | mbers | where | applic | able): | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | |
| p. | Rge. | NE ¼ | NW 1/4 | E ¼ | SE ¼ | NE ¼ | NW ¼ | | 1 20 | | | V 1/4 | | SE ¼ | | | | | |
| | | | | | 55 % | 1415 74 | NW 1/4 | SW ¼ | SF ¼ | NE ¼ | NW ¼ | SW ¼ | SE ¼ | NE ¼ | NW ¼ | SW ¼ | SE ¼ | Total | |
| - | | - | - | - | _ | | | | | | | | | | | | | - | |
| | | | | | | | | - | | | | | | | | | | | |
| - | | | | | | | | | | | | | | | | | | | |
| _! | | | ! | | | | | | | | | | | | | | | | |
| - | - | | | | | - | | | | | | | 1 | otal numl | per of acre | s to be ir | rigated | | |
| L | cate | d in. | | W.i1 | liams | | 200000100010 | | Con | intir N | Tamb T | N = 1 = - 4 | | | | | | | |
| Fls | tima | ated q | uantit | y of wa | iter tha | at will | be ret | urned | to the | appro | ortn L ximate | source | from | which | divort | od: | | | |
| | | | | | | | | | | SAUK | VALLE | TOW | NSHIP | WITTELL | urveri | eu | | | |
| | | | | | | | | | 2 | Par | 11/1 | 17 | NUX | | 1 | | | | |
| | | | | | | | | | <i>L</i> | | yu. | police | nt's S | ignatu | | Chair | man. | | |
| | | | | | | | | | | | 12 | -PPIICe | TILD D | Rughn | 16) | | | | |

NOTE: Above application is merely a declaration of intention to create a water right, approval does not create such right. Water right will be created only if and when water is beneficially used.

DO NOT COMPLETE THIS SIDE OF FORM — THIS SIDE FOR USE OF STATE ENGINEER

CONDITIONAL PERMIT

| This is to certify that I have examined the foregoing subject to prior water rights. The rate feet per second. The acre-feet and rate (If denied state reason, if approved by the State Engineer. Failure to compare result in forfeiture of water right. The amount of water to be appropriated shall be in | I state condition, if any, to approval) oly with any order of the Sta | ate Engineer may | | | | | | | | |
|--|--|------------------|--|--|--|--|--|--|--|--|
| to exceed 760 acre feet | | feet annual use. | | | | | | | | |
| 1. Date of priority February 11, 1966 | d 0 | | | | | | | | | |
| 2. Date of hearing on application May 9, 1966 | | | | | | | | | | |
| 3. Date of approval by State Water Conservation Commission May 17, 1966 | | | | | | | | | | |
| 4. Construction to be initiated on or before | - manage 1 | i je | | | | | | | | |
| 5. Construction to be completed on or before | | | | | | | | | | |
| 6. Water shall be beneficially used on or before | December 31, 1970 | | | | | | | | | |
| WITNESS my hand and seal this 23rd | day of May | , 19 | | | | | | | | |
| | Milo W. Horswee State Engineer Secretary, State Water Conservation | | | | | | | | | |