No. 864-3Water Division No. 3 VERMILLION RIVER
(Blanks to be filled by the Engineer for the W. B. C.)STATE WATER RESOURCES COMM.
PIERRE SOUTH DAKOTA

APPLICATION FOR PERMIT

To Appropriate Water within the State of South Dakota

(NOTE—Draw a line through items not applicable.)

1. Name of applicant South Dakota Department of Game, Fish and Parks
Postoffice address PIERRE, County Hughes, State South Dakota

- I. If a corporation
- (a) Name of same
 - (b) Date and place of incorporation
 - (c) Amount of capital stock
 - (d) Amount paid in
 - (e) Names and addresses of directors

(NOTE—A certified copy of articles of incorporation must accompany the application.)

II. Method of accomplishing the work and financial resources of the applicant:

- (a) Method of accomplishing work: (Whether by contract, employment of others, or by direct labor)

- (b) Cash on hand, \$
(c) Treasury stock, \$
(d) Bonds to be issued, \$
(e) Other resources, \$

2. Name of diversion work WALL LAKE, Minnehaha County
As required to fill lake to outlet level - approximately 500
3. Amount of water claimed acres feet per year cubic feet per second
4. Source of water supply Local watershed
One point in the watershed located in the
5. Location of point of diversion NE 1/4 of Sec. 28, T 101, R 51
on bank County.
6. Annual period or periods during which water is to be used all year round
7. To be used for

- I. Irrigation or domestic use: Gravity, overhead sprinkling or combination system?

- (a) Number of acres to be irrigated acres.

- (b) Legal subdivisions to be irrigated

(NOTE—A list of lands to be irrigated, giving each subdivision and fraction with acreage thereof, should be written here, or may be appended as a part of this application. Same must also be shown on accompanying map.)

- (c) Statement as to domestic use (giving location, etc.) To the ordinary high water mark

of the inundated portions of Sec. 21 and 28, T 101, R 51

II. Stockwatering, mining, milling, power, fish culture, fire protection and public recreation:

- (a) Nature of use Public recreational purposes

Name any of the above uses claimed

- (b) Amount of power to be generated horse power.

Amount claimed for engine cooling

- (c) Location of plant

- (d) Method of developing power

- (e) Point where water will be returned to stream

8. Estimated cost of work:

(a) Head Gates, \$-----

(b) Pumping plant, \$-----

(c) Fluming, \$-----

(d) Canal-earth, \$-----

Rock, \$-----

(e) Other structures ----- \$-----

Total, \$-----

9. Description of diversion works:

I. Nature of works: (Reservoir, dam, ditch, flume, pumping plant, etc.)

II. Dimensions of works.

Information requested not applicable. Wall Lake is a meandered lake, Maximum depth is approximately 25 feet

(a) Dam: Height ----- feet; length at bottom ----- feet; length at top -----

----- feet; thickness at bottom ----- feet; thickness at top -----

feet; slope at front water face -----; slope at back face -----

material used in construction -----

(b) Reservoir: Capacity when filled ----- acre feet. Surface area at highwater mark 300 ----- acres.

DEPTH AT OUTLET-Feet	SURFACE AREA AT EACH DEPTH AT OUTLET--ACRES	FEET ACRE-Feet CAPACITY

(c)* Head gate: Width ----- feet; height ----- feet;

Material -----

(d) Canal: Total length ----- miles.

LOCATION BELOW HEADGATE	DEPTH	BOTTOM WIDTH	WIDTH AT WATER-LINE	GRADE PER MILE
At ----- Mile	----- feet	----- feet	----- feet	----- feet
At ----- Mile	----- feet	----- feet	----- feet	----- feet
At ----- Mile	----- feet	----- feet	----- feet	----- feet
At ----- Mile	----- feet	----- feet	----- feet	----- feet
At ----- Mile	----- feet	----- feet	----- feet	----- feet
At ----- Mile	----- feet	----- feet	----- feet	----- feet

(Give dimensions where reductions in size are made.)

10. Time required for completion of work ----- years. Not applicable - a meandered lake

11. Time required for complete application of water to the proposed beneficial use ----- years.

12. Choice of newspaper for publication of notice of intention to appropriate -----

STATE OF SOUTH DAKOTA

County of ----- } ss.

I, Valerie A. Ellmore, being first duly sworn on my oath depose and say: That my relation to the above described undertaking is that of owner, that I have read the above foregoing statement, examined the map accompanying the same, and that I know of my own personal knowledge that the matters therein stated and shown are true.

Signed

Subscribed and sworn to before me this 25 day of September 1964

Notary Public (or other qualified officer.)

Remarks by State Water Resources Commission:

"Vested right" claimed

STATE OF SOUTH DAKOTA
County of Hughes } ss.

Pierre, South Dakota, December 20, 1962

This is to certify that the foregoing application was received by the Commission at 9:00 o'clock
a.m. upon the 27th day of SEPTEMBER, 1961.

State Water Resources Commission

By:

Burton Z. Jones
for Chief Engineer, Executive Officer

Number of permit 864-3

Date of first receipt of application September 27, 1961

Date of return to applicant for correction, amendments or changes required as follows: —, 19—

Date of receipt of corrected application —, 19—

Date from which applicant may claim right 1889, 19—

Approved December 20, 1962, Recorded in Book 7 Page 294

This is to certify that we have examined the foregoing application for a permit to appropriate water of the State of South Dakota, and we hereby grant the same as stated herein, subject, however, to the following limitations and conditions:

1st. The equivalent of at least one-fifth of the work above specified is ~~to be~~ completed ~~on or before~~

10

2nd. The whole of said work is ~~to be~~ completed ~~on or before~~, 19—

3rd. The limit of time for proof of beneficial use of water appropriated in accordance herewith is

completed, 19—

4th. The water appropriated shall be used for the purpose of public recreation

5th. The prior right of all persons who, by compliance with the laws of the State of South Dakota, have acquired a right to the use of water must not be injuriously affected by this appropriation.

6th. The amount of the appropriation herein granted shall not exceed 900 acre feet annually
~~cubic feet per second~~; neither shall it exceed the capacity of the above described system of diversion works,
nor the least amount of water that experience may hereafter indicate as necessary for ~~the production of crops~~
~~in the exercise of the best husbandry~~; and further, said appropriation must be limited to not more than one
seventieth (1/70) of one cubic foot of water per second of time for each acre of land to which water is actually
used for public recreation was

and beneficially ~~applied for irrigation~~ on or before June 30, 1955; said water to be used
during the following described annual period:

Continuously

Witness my hand this 30th day of DECEMBER, 1962.

State Water Resources Commission

By:

W. B. Jones

Chief Engineer, Executive Officer

Certificate of Construction Issued December 20, 1962

Water License Issued December 20, 1962

Permit No. 864-3Water Division No. 3 Vermillion River Water District

Certificate of Completion of Works

TO ALL WHOM IT MAY CONCERN:

This is to Certify, That the Department of Game, Fish and Parks

of Pierre, County of Hughes, and State of South Dakota
Vested Right, the holder of Permit No. 864-3, issued upon Application
 No. 864-3, bearing date of priority of 1889, authorizing the diversion of
900 acre feet annually of the waters of the local watershed
 County of Minnehaha, State of South Dakota, at a point in the
NE 1/4 NE 1/4 Section 28, T101N, R51W

for public recreation
 purposes, has ^B fully complied with the provisions of the laws of the State of South Dakota relating to proof of
 completion of the works of diversion set out and described in said Permit; that said works are recognized as satisfactory
~~known~~ for diverting and conveying to the place of intended use 900 acre feet annually
~~per second~~ of water; and that the lands proposed to be irrigated by the use of said water are described as follows,
 to-wit: to be used in place for public recreation.

Witness my hand this 20th day of December A. D. 1962

State Water Resources Commission

By: J. W. GRIMES
 Chief Engineer, Executive Officer

STATE OF SOUTH DAKOTA

WATER LICENSE No. 864-3

WHEREAS, On the 27th day of September A. D. 1961

the Department of Game, Fish and Parks

of Pierre County of Hughes and State of South Dakota Vested Right
 annually duly made application (No. 864-3) to us for a permit to use 900 acre feet
 of the waters of the local watershed

County of Minnehaha, State of South Dakota, for public recreation purposes; and

WHEREAS, On the 20th day of December A. D. 1962
 Vested Right /Permit No. 864-3 was issued to said applicant for the diversion of said water, recognizing
 the completion of the works of diversion therein described ~~on or before the~~ ~~XXXXXX~~
 A. D. 1962 and for the application to beneficial use of said
~~water on or before the~~ day of ~~XXXXXX~~
 and,

WHEREAS, On the 27th day of September A. D. 1961
 the holder of said permit duly made proof of the completion of adequate works for the diversion of 900 acre feet
 annually ~~XXXXXX~~ of said waters, as evidenced by our Certificate No. 864-3
 dated December 20, 1962 confirming the completion of works of sufficient capacity for
 diverting and conveying to the places of intended use 900 acre feet annually
 of water, with date of priority of 1889 and,

WHEREAS, On the 27th day of September A. D. 1961
 proof was duly made of the application to beneficial use of 900 acre feet annually
 to be used in place for public recreation.

NOW, THEREFORE, By the virtue of the authority vested in us by the laws of the State of South Dakota,
We hereby grant and confirm to the Department of Game, Fish and Parks
of Pierre Vested Right
the holder and owner of said permit No. 864-3
a water right, dating from 1889 to the use of 900 acre feet
annually
~~not to exceed~~ of the waters of the local watershed
In the County of Minnehaha and State of South Dakota, or so much thereof as may be
necessary for the purposes hereinbelow mentioned, to be diverted at a point in the NE¹ NE¹ Section 28,
T 101 N, R 51 W
and ~~not to be used for~~ stored in place

for the purpose of public recreation.

subject, however, to the laws of the State of South Dakota applicable to a license for the use of the waters of the State, and subject, also to the local or community customs, rules and regulations which have been or may be adopted from time to time by a majority of the users from a common source of supply, canal or lateral from which such water may be taken, when such rules and regulations have for their object the economical use of such water.

WITNESS, My hand and seal of our office at Pierre, South Dakota,
this 20th day of December A. D. Nineteen
Hundred and Sixty-Two.

State Water Resources Commission

By:

J. W. GRIMES
Chief Engineer, Executive Officer

STATE OF SOUTH DAKOTA

Water License No. _____

To _____

Source of Supply _____

County _____

Am't _____ c. f. s.

Point of Diversion _____

Place of Use _____

Purpose _____

Date of Priority _____

Recorded _____

in Book _____ of _____ Page _____

Location No.-----

Water Division No.-----Water District

Proof of Application of Water to Beneficial Use**PETITION OF HOLDER**

Ques. 1. State your name, residence, occupation and postoffice address.

Ans. South Dakota Department of Game, Fish and Parks, Pierre, South Dakota

Ques. 2. If acting in behalf of a corporation, state its name, principal place of business (If a foreign corporation, give name and postoffice of statutory agent,) your position with reference to same, and your authority for appearing in its behalf.

Ans. -----

Ques. 3. State date of posting and date of recording notice of appropriation.

Ans. -----

Ques. 4. State source of water supply and give exact location of point of diversion.

Ans. Local watershed - one point in the watershed located in the NE 1/4 of sec.28, T. 101, R. 51

Ques. 5. Describe your works of diversion giving length and height of each dam and state amount of water they are capable of conveying from point of diversion to place of use, and give name of canal or ditch or other works by which water is conducted to such place of use, and date of completion of same.

Ans. A meandered lake - depth 25 feet - 300 acres

Ques. 6. State for what purpose water is used and describe place of use. (If for irrigation, name each subdivision in which used, and number of acres in each subdivision that have ACTUALLY been irrigated with said water.)

Ans. Fish and wildlife propagation, conservation and recreation

Ques. 7. If for other than irrigation purpose, state how applied, amount of horse power generated, etc.

Ans. Used in place in lake or reservoir

Ques. 8. What is the minimum amount of water required for the use specified above?

Ans. As required to fill lake to outlet level - approximately 800 acre feet per year

Ques. 9. If you are not the person or representative of the corporation to whom above mentioned permit was originally issued, please state how ownership was acquired by present holder.

Ans. -----

Ques. 10. State when, how, in what amount and to what extent, the water diverted under above mentioned permit has been used.

Ans. A meandered lake used by the public for uses specified except for that
amount lost by evaporation and seepage

(Sign) [Signature]

I hereby certify that the foregoing testimony was read to the above subscriber before its signing, that I believe him to be the person he represents himself to be, and that said testimony was subscribed and sworn to before me, my office in Pierre, County of Hughes

State of South Dakota, on this 25 day of September A. D. 1961

Witnesses. [Signature]
2-6-65

I, the undersigned, do hereby certify that I am a duly qualified elector residing in the immediate vicinity of the diversion works designated in the foregoing testimony, that I have no interest in the works, water or land above described, that I have read the foregoing testimony and that I know of my own personal knowledge that the matters therein stated are true.

Location No. -----

**PROOF OF APPLICATION OF
WATER TO BENEFICIAL USE**

PETITION OF HOLDER

Amount of Water ----- c. f. s.

Source -----

County -----

Purpose -----

Place of Use -----

Date of recording -----

Received and filed -----

March 15, 1963

Mr. Walter J. Fillmore, Director
Department of Game, Fish and Parks
Pierre, South Dakota

Dear Walt:

Enclosed are your permit to appropriate water, certificate of completion of works, and water license for the following applications:

<u>No.</u>	<u>Lake</u>	<u>County</u>
857-3	Cell Rapids Dam	Minnehaha
858-3	Garretson Dam	Minnehaha
859-3	Baltic Dam	Minnehaha
860-3	Grass Lake	Minnehaha
861-3	Diamond Lake	Minnehaha
862-3	Clear Lake	Minnehaha
863-3	Lost Lake	Minnehaha
✓864-3	Wall Lake	Minnehaha
865-3	Beaver Lake	Minnehaha
866-3	Todd Lake	Clark

Sincerely,

J. W. GRIMES
Chief Engineer and
Executive Officer

JWG:mf

C O P Y

Water Rights Division - DWR

File No. 864-3

Conversation or File Documentation

NAME OF PERSON OR FILE: SD Dept. of Game, Fish & Parks - Wall Lake

ADDRESS: _____ COUNTY _____

DATE: _____ TELEPHONE _____

RE: Ordinary High Water Mark Determination

COMMENTS:

April 14 & 15, 1983 - Water Management Board Minutes

Mr. Rylance MOVED, SECONDED by Mr. Harms that the Ordinary High Water Mark for
Wall Lake be established at an elevation of 1559.5 feet msl and that Vested
Right No. 864-3 be clarified to require the outlet structure for Wall Lake to
be maintained at an elevation of 1559.0 msl. MOTION CARRIED.

For more information see OHWM file.

File in Permit or other file as necessary. Use to document conversations and what the other party was told; why action or decision was made.

NAME: _____

864-3

SOUTH DAKOTA

VESTED WATER RIGHT NO. 864-3

Date of Receipt of Claim September 27, 1961.

Date of Validation September 30, 1992.

The Water Management Board validated Vested Water Right Claim No. 864-3 for the South Dakota Department of Game, Fish and Parks, 523 E Capitol, Pierre SD 57501 with the following limitations, conditions and qualifications:

1. Vested Water Right No. 864-3 is for sufficient runoff water annually to fill Wall Lake to the outlet elevation of 1559.0 feet mean sea level (msl). The ordinary high water mark for Wall Lake is established at 1559.5 feet msl. The location of the outlet for Wall Lake is near the NE 1/4 NE 1/4 Section 28-T101N-R51W in Minnehaha County.

2. The appropriated water is used to fill Wall Lake and may not exceed the amount of water needed for beneficial use for public recreation purposes.

The water is to be used during the following annual period:
January 1 - December 31

3. The priority date of the Vested Water Right is November 2, 1889.
4. The water use system has been constructed and water has been applied to beneficial use.
5. Water Rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

WATER MANAGEMENT BOARD

By: [Signature]
Chief Engineer

MAR 26 1993

date

Division of Water Rights
Dept. of Environment and Natural Resources

864-3

STATE OF SOUTH DAKOTA

VESTED RIGHT WATER LICENSE NO. 864-3

(1) The South Dakota Department of Game, Fish & Parks of 523 E Capitol, Pierre, SD 57501, made Application No. 864-3, September 27, 1961 for validation of a vested right claim to appropriate 900 acre feet of water annually from the local watershed, Minnehaha, County, South Dakota, for recreational purposes. Vested Water Right No. 864-3 was validated September 30, 1992 with a priority date of November 2, 1889. Construction of the described water supply system and application of water to beneficial use has been completed and complies with applicable provisions of South Dakota State Law.

The original vested right claim recognized appropriation of 900 acre feet of water annually. On September 30, 1992, the Water Management Board validated the claim for sufficient runoff water annually to fill Wall Lake to the outlet elevation of 1559.0 feet mean sea level. The ordinary high water mark for Wall Lake is established at 1559.5 feet msl. The license is being reissued to delete the 900 acre feet limitation and allows for sufficient runoff water to fill the lake.

(2) Pursuant to Section 46-5-30.1 the South Dakota Department of Game, Fish & Parks of 523 E Capitol, Pierre, SD 57501 the holder(s) and/or owner(s) of Vested Water Right No. 864-3 is issued a license for sufficient runoff water to fill Wall Lake to an outlet elevation of 1559.0 feet mean sea level with a priority date of November 2, 1889. The location of the outlet for Wall Lake is near the NE 1/4 NE 1/4 Section 28, T101N, R51W. The water is to be used for the purpose of public recreation purposes. This license is subject to any limitations, conditions or qualifications listed in Vested Water Right No. 864-3 and subject to South Dakota State Law.


JOHN HATCH Chief Engineer
Water Rights Division
Department of Environment and Natural Resources

864-3



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

MAR 24 1993

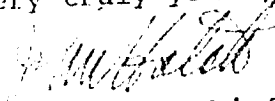
Tim Olson
Department of Game, Fish and Parks
523 E Capitol
Pierre SD 57501

Dear Mr. Olson:

The Water Management Board has validated the enclosed Vested Water Right No. 864-3. This validation gives legal status to the claim and is the final document for the vested right. Enclosed is the reissued water license which reflects the established ordinary high water mark elevation.

As long as you use the water beneficially, as stated in the validation, State Water Laws provide that you have a continuing right to use the water.

Very truly yours,


JOHN HATCH, Chief Engineer
Water Rights Division
605 773-3352

Enclosure

**Department of
Water & Natural Resources**

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

September 21, 1988

Richard Beringson, Secretary
Department of Game, Fish and Parks
Anderson Building
445 E Capitol
Pierre SD 57501

Dear Mr. Beringson:

I am writing to notify you that pursuant to the Notice of Intent to Validate Vested Water Right Claims dated June 20, 1988 that I intend to oppose validation of all Department of Game, Fish and Parks Vested Water Right Claims for lakes for the following reasons:

1. Until the outlet elevation for each lake is surveyed and the outlet elevation is set by the Water Management Board.
2. To allow the Vested Water Right Claim to be amended, if necessary, as follows:
 - a) Include the outlet elevation;
 - b) To correct the amount of water claimed;
 - c) To add the qualification that a vested claim is subject where necessary to installation of a concrete outlet structure to assure retention of the outlet as the established elevation; and
 - d) To add any amendments and qualifications necessary to clarify a Vested Right Claim.

Also, that I intend to oppose validation of all Department of Game, Fish and Parks Vested Water Right Claims for dams to allow the Vested Water Right Claim to be amended, if necessary, as follows:

1. To include the spillway elevation;
2. To correct the amount of water claimed; and
3. To add any amendments and qualifications necessary to clarify a Vested Right Claim.

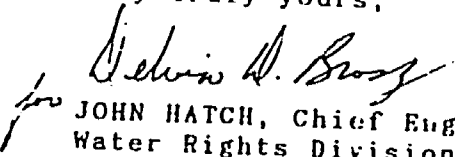


September 21, 1988
Richard Beringson, Secretary
Page 2

We will be working with your staff on these validations. We have already discussed setting outlet elevations before validating claims for lakes. Although the work necessary to complete the validation process will take several years to complete, the results should be of benefit to the public and to your Department. As the work is completed to validate each claim, the claim will be presented to the Water Management Board for validation.

Please advise if you have any questions.

Very truly yours,

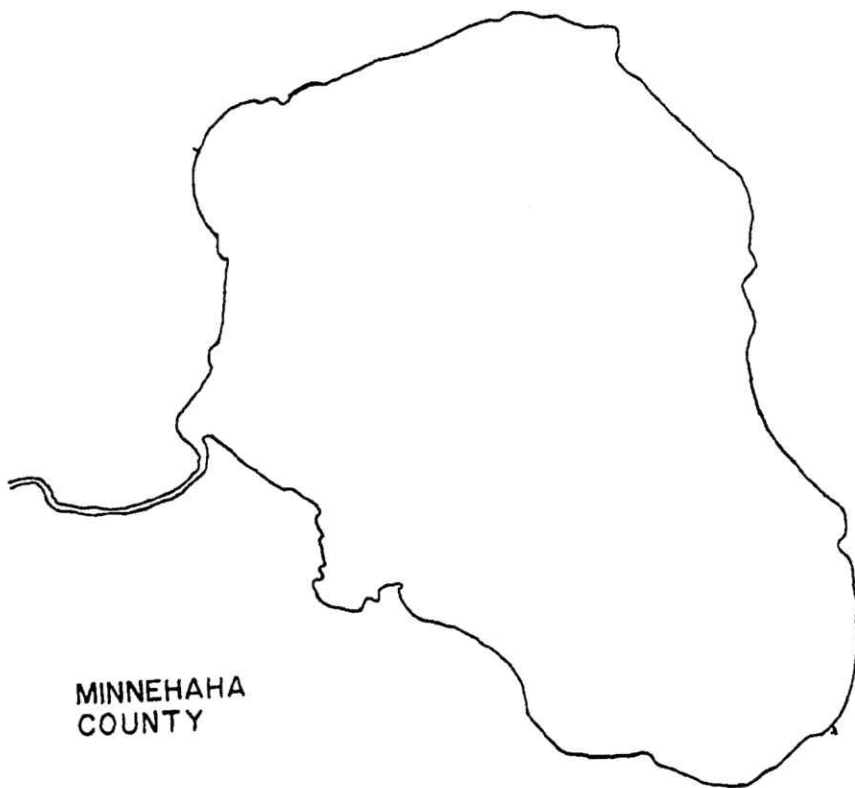

JOHN HATCH, Chief Engineer
Water Rights Division
605 773-3352

cc: Ron Koth, Department of Game, Fish and Parks

864-3

ORDINARY HIGH WATER MARK
INVESTIGATION FOR

WALL LAKE



MINNEHAHA
COUNTY



Department of
Water & Natural Resources

Joe Foss Building
Pierre, South Dakota 57501

March, 1983

REPRODUCTION: REDUCTION

28:1

ROLL NO. 10

DATE MICROFILMED

CAMERA OPERATOR

TABLE OF CONTENTS

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REVISION 1022-7

REL. N. 44

DATE MICROFILMED

OPEN 03-10

WALL LAKE

ABSTRACT

This report contains the results of an investigation performed to determine the Ordinary High Water Mark (OHWM) for Wall Lake in Minnehaha County. The primary factors involved in calculating the OHWM were: Wall Lake's hydrological characteristics and elevations of erosion lines and trees found at the upper limit of its lake bed.

Based on the findings in this report, the OHWM for Wall Lake has been determined to have been established at an elevation of 1559.5 feet mean sea level (msl).

REPORTING OFFICE

RELATION

601

ROLL NO. 10

DATE MICROFILMED

CHIEF OPERATOR

INTRODUCTION

Authority and Administrator

The Water Management Board is mandated by Law, SDCL 43-17-21, to establish the Ordinary High Water Mark on public lakes in South Dakota. The Board is to perform this in accordance with SDCL 43-17-1 thru 43-17-3; 43-17-20 thru 43-17-26, and Board Rules ARSD 74:02:03:11 and 74:02:03:12. This report contains the results of the investigation conducted by the Department of Water and Natural Resources, Water Rights Division to determine the elevation of the OHWM and outlet structure for Wall Lake.

Explanation of OHWM

The ordinary high water mark is coordinated with the upper limits of the bed of a lake. The determination of the OHWM is derived from the examination of the upper limits of the bed of the lake. This examination is conducted to ascertain where the continuous presence and action of the water has left a distinct mark; either by erosion, destruction of terrestrial vegetation, or some other easily recognized characteristic. In examining a lake for the determination of this level, it is necessary to consider the size, watershed, topography, soil and general characteristics of the lake (refer to Appendix A).

Date of Investigation

The principal field investigations for this report were conducted in August 1982 and March 1983. The examination of the shoreline, banks, and vegetation of Wall Lake was performed. The shoreline areas selected for study were those least affected by individuals.

INVESTIGATION

Location

Wall Lake is located in Minnehaha County within Sections 21 and 28 of T101N, R51W. (refer to county map of Appendix A)

Elevation References

Elevations in this report are referenced to National Geodetic bench mark at South Shore. The bench mark is located 7.0 miles south and 2.0 miles west of Hartford. It is 1/4 of a mile south of the intersection between sections 19, 20, 29, and 30 of T101N, R51W, 35 feet west of the center of the road, 3 feet north of a fence corner, a standard tablet stamped "54 DM 1958" set at an elevation of 1634.525 feet msl.

Lake Characteristics

Wall Lake is of glacial origin located in the Beaver Creek watershed. It receives recharge water from its 1,100 acre watershed and a moderate aquifer connection.

For further information on Wall Lake refer to Appendix A, lake data.

OHWM Indicators

A. Shoreline Trees

Trees, which are the largest and most permanent expression of upland growth, are used to determine a relationship between the growth characteristics of the trees at various elevations and the OHWM elevation. Records of ordinary high water levels are reflected in the well established trees growing along the upper limits of a lake's shoreline. Cottonwood, ash, and willow are the most predominant trees that grow along the shores of South Dakota's lakes. Experimentation and research have shown that most trees will not survive if water levels exceed one half to one tree diameter below the base elevation of the tree for more than 25% of the growing season. Consideration must be given to the characteristics of the soil, slope of the ground, and the effects of water and ice on the shoreline and bank.

The well established trees along Wall Lake's shoreline were found growing at an elevation of 1559.2 feet msl and up. The majority of the trees were found growing between 1559.4 and 1559.5 feet msl. These trees showed signs of being affected by the presence and action of water. Their roots were found growing away from the lake. Some trees showed partial decay from erosion and soil saturation causing damage.

See Appendix B for examples of shoreline tree found at Wall Lake.

B. Water Marks

Water marks were found on vertical structures and rocks at an elevation of 1559.5. (See Appendix C)

Outlet Structures

The outlet for Wall Lake is located in the southeast corner of the lake. The outlet consists of two oval shaped corrugated metal culverts 3.7 feet high and 5.7 feet wide. The bottom of these culverts are at an elevation of 1558.8 feet msl. There is a 100 foot channel from the Lake to these culverts. In this channel there is a two tenths of a foot drop to the culverts.

The overflow elevation for Wall Lake is 1559.0 feet msl. (See Appendix D)

Water Level Records

The water level at the time of the investigation in August, 1982 was 1557.1 1982 and 1560.2 in March, 1983.

Water level records were recorded between 1936 and 1970. These records can be found in Appendix A.

Water Rights

There has been a Vested Water Right issued relating to the waters of Wall Lake. This Vested Water Right No. 864-3 was issued to the Department of Game, Fish and Parks. It allows for the annual recharge of 900 acre-feet of water or as required to fill the lake to outlet level. The water right has a priority date of 1889.

CONCLUSIONS

Based on the study of Wall Lake's hydrological characteristics and elevations of erosion lines and trees found at the upper limits of its lake bed, the Ordinary High Water Mark has been determined to be at an elevation of 1559.5 feet msl.

The present OHWM indicates that the outlet elevation has been maintained at its present elevation of 1559.0 feet msl.

RECOMMENDATIONS

The Water Rights Division recommends to the Water Management Board:

1. That the Ordinary High Water Mark for Wall Lake be established at an elevation of 1559.5 feet msl.
2. That Vested Right No. 864-3 be clarified to allow the water level at Wall Lake to be maintained at an elevation no higher than 1559.0 feet msl.

Jerry E. Steffen

Jerry E. Steffen, Natural Resources Engineer
Water Rights Division
Department of Water and Natural Resources

For information regarding OHWM bench marks established at Wall Lake, contact the Department of Water and Natural Resources, Water Rights Division, Pierre, South Dakota 57501.

STATE OF SOUTH DAKOTA)
COUNTY OF HUGHES) ss

Sworn to, before me, this 11th day of April, 1983.

Carolyn Jorgensen
Notary Public

CAROLYN JORGENSEN
My Commission Expires
June 13, 1983

REPRODUCTION: REFLECTION 2617 ROL NO 6 2-22-70 DATE MICROFILMED 11-10-81 OPERATOR

APPENDICES

Appendix A.....	Wall Lake Data
	Table 1 Data Summary
	Table 2 Water Level Records
	County Map
	Topographic Map
	Watershed Map
	Bathymetric Map
Appendix B.....	Shoreline Trees
Appendix C.....	Water Marks
Appendix D.....	Outlet Structure

Appendix A

Table 1. Wall Lake Data

Surface Area.....	205 acres ¹
Watershed Area.....	1,118 acres ¹
Maximum Depth.....	12 feet ¹
Mean Depth.....	8.6 feet ¹
Volume.....	1,785 acre feet ¹
Total Dissolved Solids.....	1,100 mg/l ¹
Aquifer Connection.....	moderate ²
Outlet Elevation.....	1559.0 feet msl
OHWM Elevation.....	1559.5 feet msl
Water Right.....	No. 864-3 Held by Game, Fish and Parks Dept., for the annual recharge of 900 acre-feet, priority date of 1889

BIBLIOGRAPHY

- ¹Ronald M. Koth, South Dakota Lakes Classification and Inventory, South Dakota Department of Water and Natural Resources, Office of Water Quality, July 1, 1981, pp 345-351.
- ²State Lakes Preservation Committee, A Plan for the Classification, Preservation, and Restoration of Lakes in Northeast South Dakota, July 1977, p. 119.

C30103js.wr

REPRODUCTION. REDUCION 25.1 ROL NO 10 DATE MICROFILMED 11-10-76 OPERATOR

TABLE 2

Water Level RecordsMINNEHAHA COUNTYWall Lake

<u>Year-Month</u>	<u>Water Level</u>	<u>Year-Month</u>	<u>Water Level</u>	<u>Year-Month</u>	<u>Water Level</u>
1936 Nov	1548.1	1946 Sept	1557.5	1959 Apr	1554.5
1937 May	1549.2	1947 May	1559.0	1960 Apr	1558.0
1937 Oct	1547.3	1948 May	1561.4	1961 June	1557.1
1938 June	1549.1	1949 May	1561.7	1961 Dec	1556.0
1939 May	1548.6	1949 Nov	1559.3	1962 June	1557.4
1939 Nov	1548.2	1950 May	1556.2	1962 Dec	1556.4
1940 May	1548.8	1951 Jan	1555.6	1963 June	1556.6
1940 Oct	Dry	1951 May	1556.8	1964 May	1558.6
1941 June	1550.1	1952 Feb	1556.8	1964 Oct	1558.6
1941 Nov	Dry	1952 May	1554.9	1966 May	1559.8
1942 May	1552.9	1952 Oct	1554.9	1966 Nov	1558.7
1942 Nov	1550.1	1953 Nov	1555.2	1967 May	1558.8
1943 June	1552.1	1954 Apr	1556.4	1968 May	1558.3
1944 July	1555.7	1954 Sept	1555.9	1968 Nov	1558.7
1944 Nov	1556.7	1955 May	1555.4	1969 May	1561.1
1945 May	1558.6	1956 May	1553.7	1969 Sept	1560.7
1945 Oct	1557.9	1956 Nov	1551.8	1970 May	1561.1
1946 May	1558.2	1957 Oct	1554.7	1970 Dec	1559.8

REPRODUCTIONS

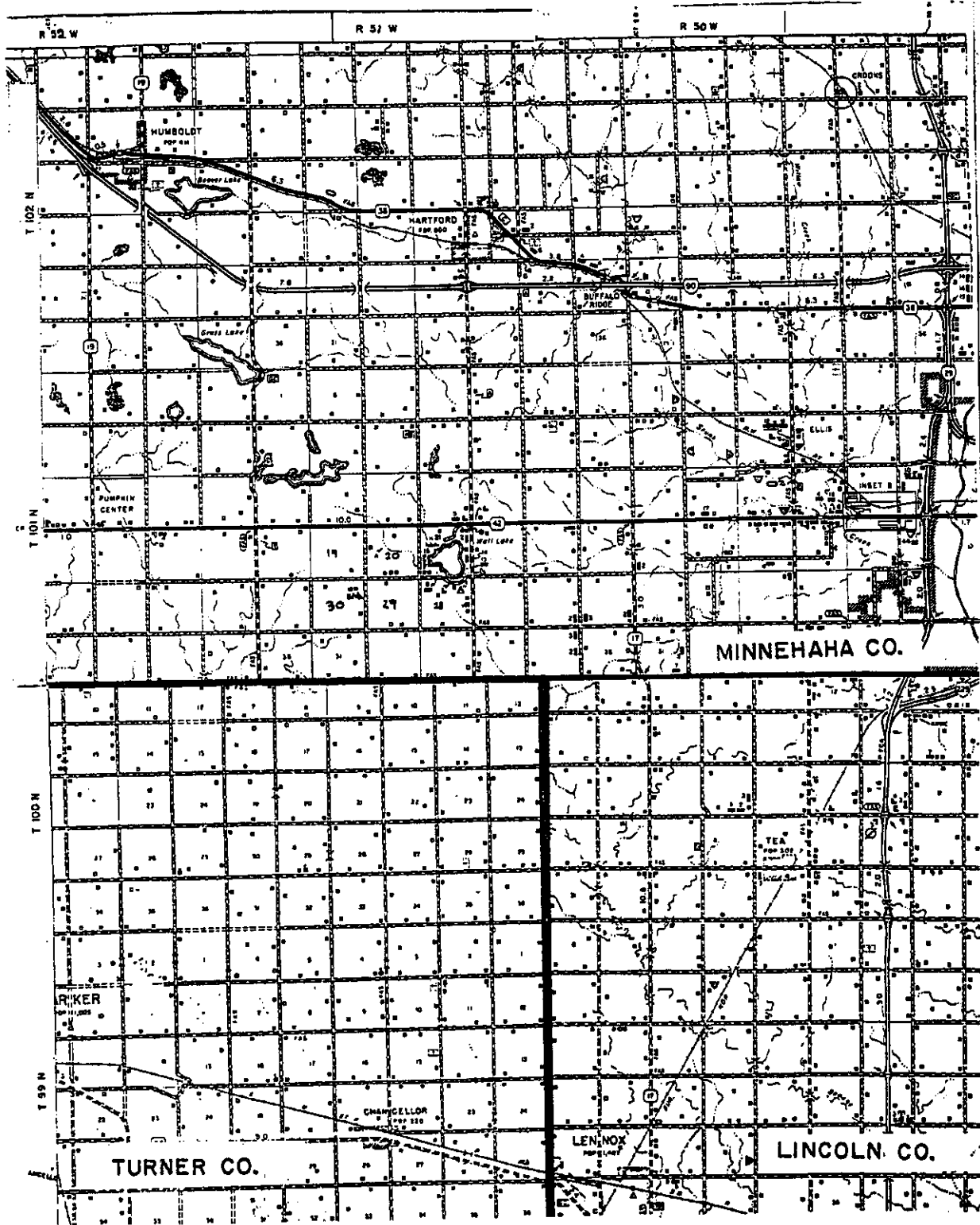
REDUCTION

26.1

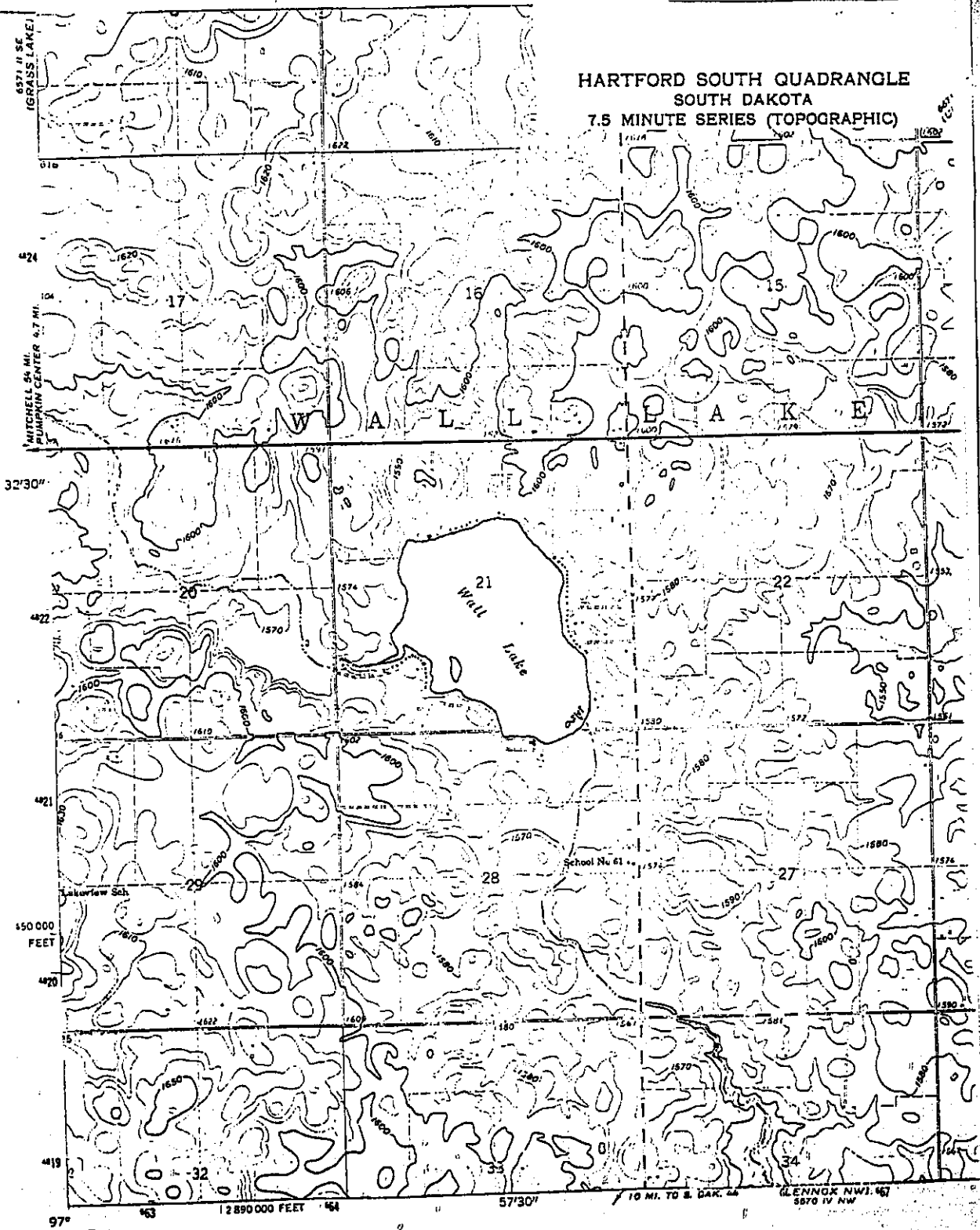
ROLL NO. 10

DATE MICROFILMED

CIVIL ENGINEER



REPRODUCTIONS: REDUCTION 30:1 ROLL NO. 10 DATE MICROFILMED 7-7-76 CAMERA OPERATOR

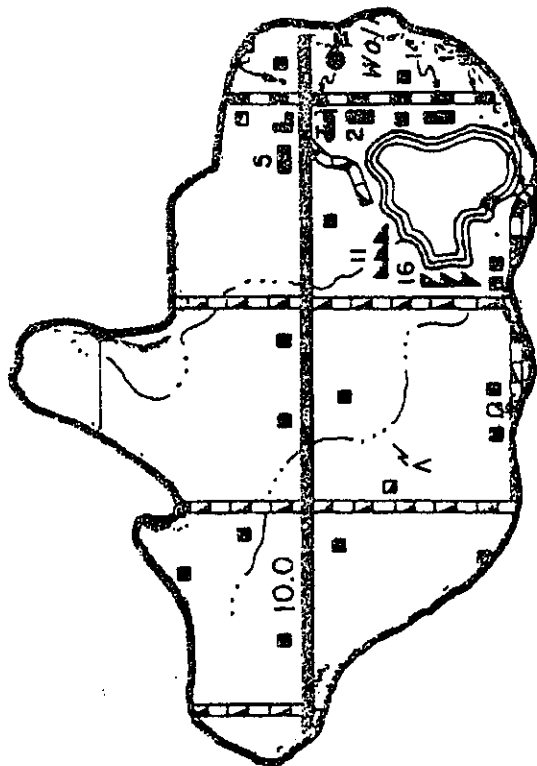


HARTFORD SOUTH QUADRANGLE
SOUTH DAKOTA
7.5 MINUTE SERIES (TOPOGRAPHIC)

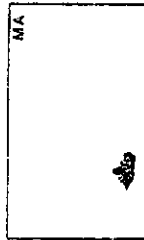
REPRODUCTION: REDUCTION 25% ROLL NO. 10 DATE MICROFILMED 11/1/70 CAMERA OPERATOR

Wall Lake Watershed

1,118 acres



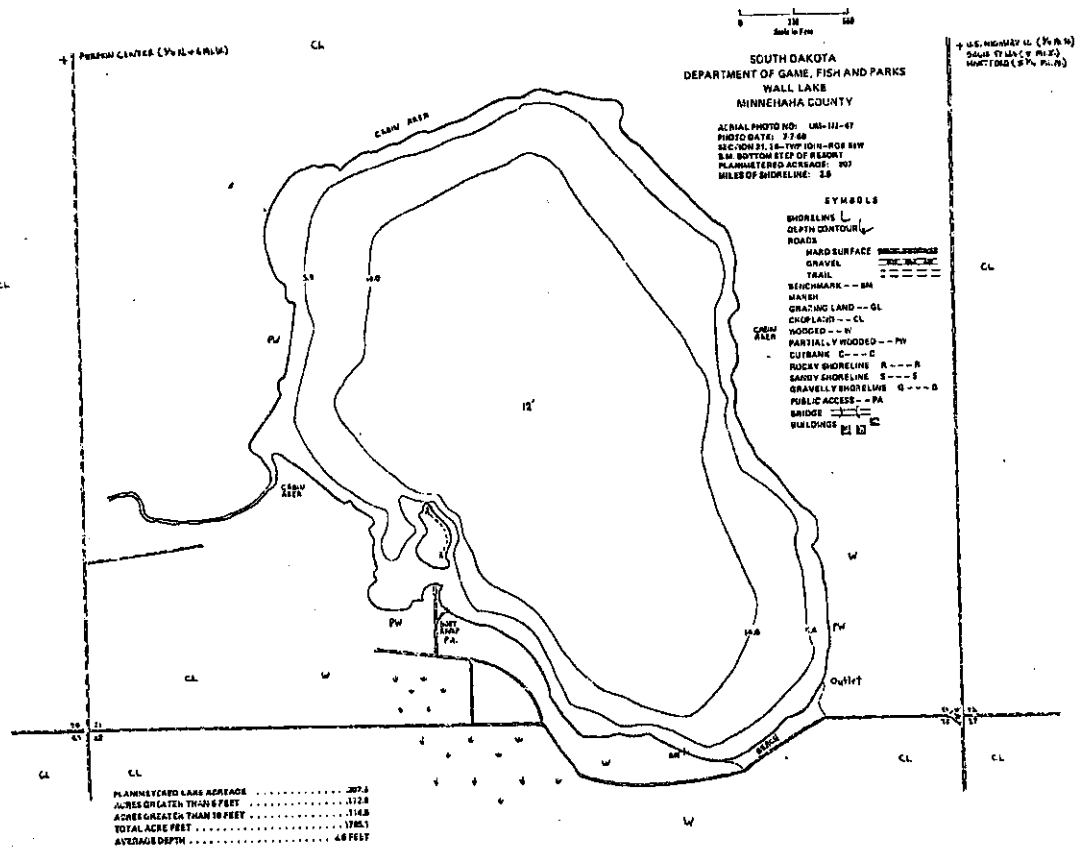
- 350 -



Scale



Miles



APPENDIX B
SHORELINE TREES



PHOTO NO. 1 Description: Cottonwood, Dia. 1.5 ft. Age 60 years
Base Elevations: Lakeside---1559.2



PHOTO NO. 2 Description: Ash trees
Base Elevations: Lakeside
tree farthest right, Dia 0.4 ft---1559.3
next tree in, Dia 0.5 ft---1559.5

REPRODUCTIONS.

REDUCTION

ROLL NO

DATE MICROFILMED

CAMERA OPERATOR



PHOTO NO. 3
Description: Chinese Elm, Dia. 0.8 ft.
Base Elevation: Lakeside---1559.4



PHOTO NO. 4
Description: Ash trees, Dia 0.4-0.6 ft
Base Elevation: Lakeside
(foreground to background)
1559.4
1559.5
1559.4
1559.4

REPRODUCTIONS.

REDUCTION

3/1/7

ROLL NO

10

DATE MICROFILMED

CAMERA OPERATOR



PHOTO NO. 5

Description: Ash, Dia 0.6, 0.7 ft.
Base Elevation: Lakeside----1559.8
Water level-1660.2



PHOTO NO. 6

Description: Ash trees
two main trunks, Dia. 0.6 and 0.7 ft.
Base Elevation: Lakeside----1559.8

APPENDIX C
WATER MARKS



PHOTO NO. 9
Water Mark Elevation-----1559.5

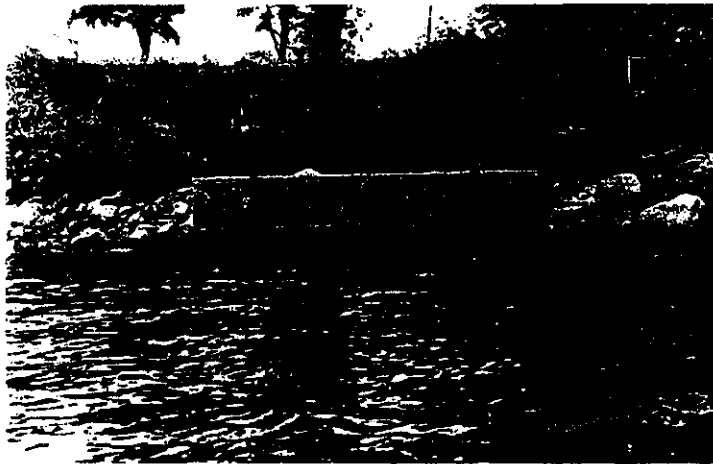


PHOTO NO. 10 Concrete Wall (north shore)
Water Mark Elevation-----1559.5

REPRODUCTIONS,

REDUCTION

2001

ROLL NO

60

DATE MICROFILMED

CAMERA OPERATOR

APPENDIX C
WATER MARKS



PHOTO NO. 9
Water Mark Elevation----1559.5

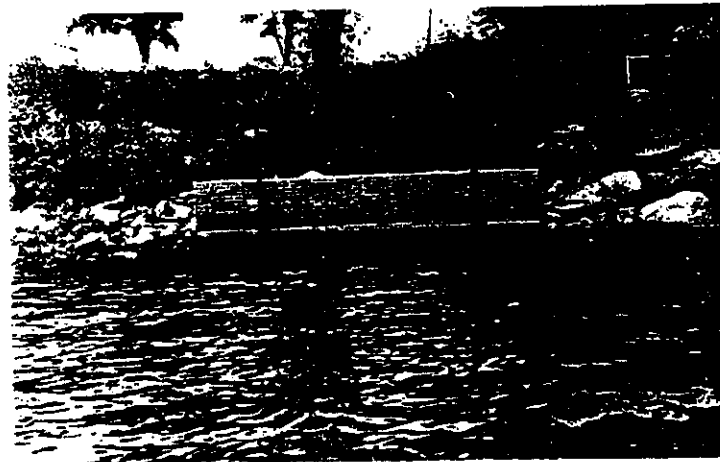


PHOTO NO. 10 Concrete Wall (north shore)
Water Mark Elevation----1559.5

REPRODUCTIONS.

REDUCTION

ROLL NO

DATE MICROFILMED

CAMERA OPERATOR

APPENDIX D
OUTLET CULVERTS AND CHANNEL



PHOTO NO. 11 Outlet structure elevation----1558.8
Channel 100 feet upstream from culverts
Overflow elevation for lake----1559.0

REPRODUCTIONS.

REDUCTION

25/1

ROLL NO

60

2-22-40
DATE MICROFILMED

11/10/80
CAMERA OPERATOR

AGENDA

Water Management Board Meeting
April 14 & 15, 1983

PLACE: Nebraska Room, Howard Johnsons, 3300 W Russell, Sioux Falls SD

THURSDAY, April 14, 1983

- 8:30 am Call to Order
Approval of February 22, 1983 Conference Call minutes
Approval of February 24 & 25, 1983 minutes
Set October meeting time & place (October 6 & 7 in Pierre suggested)
Discussion of request to change July meeting date
Status & review of Water Rights Litigation & Legislation
Discussion of City of Huron proposal
Discussion of Existing future use permits without seven year review clause
Discussion of proposed Rule changes
- 9:00 am Vested Right Considerations
Request for Extension of Time
- 9:45 am Break
- 10:00 am Establishment of Ordinary High Water Marks & Clarify Department of Game,
Fish & Parks and other Water Rights
647-3 Lake Campbell - Brookings Co.
648-3 Lake Campbell - Moody Co.
902-3 Oak Lake - Brookings Co.
882-3 Punished Woman Lake - Codington Co.
1473-3 Clear Lake - Deuel Co.
1464-3 Fish Lake - Deuel Co.
864-3 Wall Lake - Minnehaha Co.
Swan Lake (New Vested Right claim 4944-3) - Turner Co.
- 12:00 noon Lunch
- 1:00 pm Consideration of Petition for a Declaratory Ruling submitted by
Oliver M Romey against Tom Landers and A & T Cattle Co. Inc. and
proposed Findings of Fact, Conclusions of Law and Final Decision
- 2:00 pm Consideration of Mr. Arends notification of Intent to Rescind for
purpose of reconsideration actions taken by the Water Management
Board February 25, 1983 at the end of the hearing on proposed rule
changes requested by petition from Homestake Mining Co. to make
certain changes in stream classification for Whitewood Creek
- Other business
Recess for Day

FRIDAY, April 15, 1983

- 9:00 am Reconvene
Consideration of a Petition for Declaratory Ruling submitted by
the Friends of the Dakota Sandstone Aquifer against South Lincoln
Rural Water System
- Other business
Adjourn

RECORDS SECTION 267-1 ROLL NO. 10
DATE MICROFILMED 7-26-76
GREEN OPERATOR

WALL LAKE

Jerry Steffen presented the report on Wall Lake (copy on file). Mr. Steffen read the recommendations by the staff on Wall Lake.

Mr. Hatch read a letter of concurrence from Jack Merwin, Department of Game, Fish and Parks (copy on file).

Chairman Gunderson administered the oath to Dan Oberle.

Mr. Oberle stated the elevation is fine. The problem is the 100 foot channel to the culverts. It just does not let enough water through to drain the lake down soon enough. Right now, they have about 1560 something for lake level. It is causing a lot of erosion around the lake. They would like a permanent structure put in that would keep the lake at this level. They have problems with people throwing rocks in and people taking stuff out. It is in the mouth of the channel. When the lake is low it builds a sand dam ahead of it. By the time the water gets over it does damage to the banks.

Mr. Steffen stated the culverts were put in by the County when the road was put in. They are under the County road on the south side of Wall Lake and act as the outlet structure.

Mr. Rylance stated the reason he has been changing some of the recommendations that they be established at a certain level means that Game, Fish and Parks must maintain that level. If there gets to be too much debris then they must go and take it out and maintain it. If you put higher or lower than a figure, they have the leeway to let the water level fluctuate. If you set a certain point, then in Mr. Rylance's opinion they are the ones that must maintain it.

Mr. Walter stated they cannot maintain it, if there is not enough runoff water and no other source.

Mr. Rylance MOVED, SECONDED by Mr. Harms that the Ordinary High Water Mark for Wall Lake be established at an elevation of 1559.5 feet msl and that Vested Right No. 864-3 be clarified to require the outlet structure for Wall Lake to be maintained at an elevation of 1559.0 msl. MOTION CARRIED.

SWAN LAKE

Jerry Steffen presented the report on Swan Lake (copy on file). Mr. Steffen read the recommendations by the staff on Swan Lake. Mr. Steffen stated that Game, Fish and Parks have applied for a Vested Right for the annual recharge to the lake of 540 acre-feet. They are also applying for diversion from Turkey Ridge Creek to supply the needed water to fill the lake to the outlet level elevation. That diversion would have a priority date of 1954.

Chairman Gunderson administered the oath to Mark Brunick.

Mr. Brunick stated he was representing the Swan Lake Improvement Association. They are not in opposition to the OHWM as proposed. They are questioning how it will be controlled. At the outlet structure there are tubes running under a township road which are at the outlet elevation of 1252.4 feet.

RECOMMENDATIONS: REDUCTION 25:1 ROLL NO 10
DATE MICROFILMED 12-2-76
FILMED BY STATE OF MINNESOTA
OPEN OPERATION



DENR
SOUTH DAKOTA

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

Memo to File

Wall Lake in Minnehaha County

VWR No. 864-3

The OHWM was set by the Water Management Board on April 14 & 15, 1983.

OHWM elevation 1559.5 fmsl NGVD29

The outlet elevation was set by the Water Management Board on April 14 & 15, 1983.

OHWM elevation 1559.0 fmsl NGVD29

The Water Management Board validate Vested Water Right No. 864-3 on Sept 30, 1992.