

No. 6713-3
 Water Division No. 3 Big Sioux River District
 (Blanks to be filled by the Engineer for the W. R. C.)
Vastad Right

APPLICATION FOR PERMIT

STATE WATER RESOURCES COMM.
 PIERRE, SOUTH DAKOTA

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 Pierrre, 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 Pickereel Lake Fish Hatchery
 3. Amount of water claimed 376 166 cubic feet per second
 4. Source of water supply Pickereel Lake Hatchery
 5. Location of point of diversion SW corner NW1/4 Sec. 35, T 124 N, R. 53 W
Day County on East bank Day County.
 6. Annual period or periods during which water is to be used March through May
 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.)

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

(a) Nature of use Fish Propagation
 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 immediate area of diversion

8. Estimated cost of work:

(a) Head Gates, \$----- (b) Pumping plant, \$ 500.00
 (c) Fluming, \$----- (d) Canal-earth, \$----- Rock, \$-----
 (e) Other structures Fish hatching jars & tanks 1000.00 Total, \$-----

9. Description of diversion works:

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

Pumping Plant

II. Dimensions of works:

(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-----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 completed in 1925 improvements made periodically

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

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

STATE OF SOUTH DAKOTA }
 County of Hughes } 35.

I, HARRY R. WOODWARD, 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 Harry R. Woodward

Subscribed and sworn to before me this 10 day of November 1925

Edward B. Johnson
 Notary Public (or other qualified officer.)

*Each diversion must have a headgate or measuring device.

Remarks by State Water Resources Commission:

"Vested Right Claimed"

STATE OF SOUTH DAKOTA
County of Hughes } ss.

Pierre, South Dakota, November 13, 1959

This is to certify that the foregoing application was received by the Commission at 1:45 o'clock
P.m. upon the 10th day of November, 1959.

State Water Resources Commission

By:

W. J. Miller

Chief Engineer, Executive Officer

Number of permit 673-3

Date of first receipt of application November 10, 1959

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 1925, 19____

Approved November 13, 1959, Recorded in Book 5 Page 260

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 Completed, 19____
- 2nd. The whole of said work is to be completed on or before Completed, 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 fish culture
propagation
- 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 1667 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 and beneficially applied for irrigation on or before June 31, 1955; said water to be used during the following described annual period:

March to May, inclusive

Witness my hand this 13th day of November, 1959.

State Water Resources Commission

By:

W. J. Miller

Chief Engineer, Executive Officer

Certificate of Construction Issued November 13, 1959

Water License Issued November 13, 1959

Permit No. 673-3
Big Sioux
 Water Division No. 3 River Water District

Certificate of Completion of Works

TO ALL WHOM IT MAY CONCERN:

This is to Certify, That the South Dakota Department of Game, Fish & Parks
 of Pierre County of Hughes, and State of South Dakota,
 the holder of Vested Right Permit No. 673-3, issued upon Application
 No. 673-3, bearing date of priority of 1925, authorizing the diversion of
.166 cu. ft. per second of the waters of Pickarel Lake
 County of Day, State of South Dakota, at a point near the
SW corner NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 35, T 124 N R 53 W
 for fish propagation
 purposes, and 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
~~known~~ for diverting and conveying to the place of intended use .166 cu. ft.
 per second of water; and that ~~the water is to be used for~~ the use of said water is described as follows,
 to-wit: pumped through storage tank and batteries of
hatching jars and troughs for fish propagation, Water is
returned to lake (non-consumptive use)

Witness my hand this 13th day of November A. D. 1950

State Water Resources Commission

By:

J. W. GRIMES,

Chief Engineer, Executive Officer

STATE OF SOUTH DAKOTA

WATER LICENSE No. 673-3

WHEREAS, On the 10th day of November A. D. 1959 the South Dakota Department of Game, Fish and Parks

of Pierre County of Hughes and State of South Dakota duly made application (No. 673-3) to us for Vested Right .166 cubic feet per second of the waters of Pickarel Lake County of Day, State of South Dakota, for fish propagation purposes; and

WHEREAS, On the 13th day of November A. D. 1959 Vested Right 673-3 Permit No. 673-3 was issued to said applicant for the diversion of said water, and providing for the completion of the works of diversion therein described on or before the Completed and for the application to beneficial use of said water on or before the Completed and,

WHEREAS, On the 10th day of November A. D. 1959 Vested Right the holder of said permit duly made proof of the completion of adequate works for the diversion of .166 cubic feet per second of said waters, as evidenced by our Certificate No. 673-3 dated November 13, 1959 confirming the completion of works of sufficient capacity for diverting and conveying to the place of intended use .166 cubic feet per second of water, with date of priority of 1959 and,

WHEREAS, On the 10th day of November A. D. 1959 proof was duly made of the application to beneficial use of .166 cubic feet per second of said water; to be pumped through hatching jars for fish propagation

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 South Dakota Department of Game, Fish and Parks ^{Vested Right}
 of Pierre the holder and owner of said/permit No. 673-3
 a water right, dating from 1925 to the use of .166
 cubic feet per second of the waters of Pickeral Lake
 in the County of Day and State of South Dakota, or so much thereof as may be
 necessary for the purposes hereinbelow mentioned, to be diverted at a point near the SW corner
of the NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 35, T 124 N, R 53 W
 and conducted ~~xxxxxxx~~ through the hatchery facilities

for the purpose of fish propagation

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 13th day of November A. D. Nineteen
 Hundred and fifty-nine

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. 6733Bay AreaWater Division No. 3 Ellettsburg 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 ParksPierre, 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. Pickeral Lake - SW Corner of NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 35 T 124 R 53

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. Pumping plant

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. Fishpropagation - to operate hatcheryWater is pumped to storage tank, then runs through batteries of hatchingJars and troughs then returns to lake

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

Ans. _____

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

Ans. 50 gpm during hatching operation

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. ~~This has been used every spring since hatchery was established in 1925~~

(Sign) Harry R. Roadward

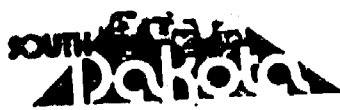
I hereby certify that the foregoing testimony was read to the above subscriber before its signing, that I believe him to be the person he represents himself to be, and that said testimony was subscribed and sworn to before me, at my office in Pierre, County of Hughes, State of South Dakota, on this 10 day of NOVEMBER, A. D. 1929

Witnesses. Edward G. Johnson

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 -----	

673-3



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.

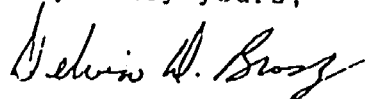


September 21, 1988
Richard Beringson, Secretary
Page 2

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,


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

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

672-3

ORDINARY HIGH WATER MARK
INVESTIGATION FOR

PICKEREL LAKE



DAY
COUNTY

REPRODUCTION: REDUCTION 26% ROLL NO. 10 DATE MICROFILMED 2-22-70 OPERATOR

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REPRODUCTION: REFUGION 25.1 POL NO 10
DATE MICROFILMED 4-22-76
FILMED BY 11-11-76
CHEN, OPENTON

PICKEREL LAKE

ABSTRACT

This report contains the results of an investigation performed to determine the Ordinary High Water Mark (OHWM) for Pickerel Lake Day County. The primary factors involved in calculating the OHWM are: shoreline tree base elevations, erosion mark elevations, outlet structure elevation, and water level elevations.

Based on the finding in this report the OHWM for Pickerel Lake has been determined to be 1845.6 feet mean sea level (msl).

ENTRUSTED: REDUCTION

DO 17

ROLL NO. 14

DATE MICROFILMED

OPERATION

INTRODUCTION

Authority and Administrator

The Water Management Board is mandated according to SDCL 43-17-21 to establish the Ordinary High Water Mark on public lakes in South Dakota. 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 Pickerel 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 banks and 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, soils and general characteristics of the lake (refer to Appendix A).

Date of Investigation

The principal field investigation for this report was conducted in June, 1982. The examination of the shoreline, banks, and vegetation of Pickerel Lake was performed. The shoreline areas selected for study were those least affected by individuals. Public access areas and/or gradually sloping beaches provide the best OHWM indicators.

INVESTIGATION

Location

Pickereel Lake is located in Day County within Sections 15, 16, 21, 22, 23, 26, 27, 34, and 35 of T124N, R53W.

Lake Characteristics

Pickereel Lake is of glacial origin, positioned in the upper reaches of the Waubay outwash deposit. Its glacial origin provided a watershed of 17,165 acres and a surface area of 955 acres. Appendix A provides a summary of Pickereel Lake's data.

Elevation Reference

Elevations in this report are referenced to a United States Coast and Geodetic Survey Bench Mark. This bench mark is located in the SW1/4 of Section 35, T124N, R53W. It is stamped "Pickereel No. 2 1952". Set at an elevation of 1955.995 feet mean sea level (msl).

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 along 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.

B. Tree Categories

The trees along the shoreline of Pickereel Lake are divided into three categories:

1. The first category of trees are those where their lakeside base elevation (the elevation where the soil meets the trunk on the lakeside of the tree) is below the OHWM (see Appendix B). This causes erosion of the soil and destruction and decay of the tree. The destruction and decay of the tree is caused by the zone of soil saturation smothering part of the root system. These trees survive because part of their root system is above the zone of saturation.

2. The second category of trees are those where their lakeside base elevation is from zero to one half of a foot above the OHWM (see Appendix C). These trees show signs of butt swell and erosion. Their root system is surfacely exposed and growing away from the lake.
3. The third category of trees are those with a lakeside base elevation approximately one foot above the OHWM (see Appendix D). These trees show lesser degrees of butt swell, little or no root erosion, and some surface roots.

C. Erosion Marks

The best indication of an erosion line is along the south shore, north of Pickerel Lake Lodge. The elevations ranged from 1845.6 feet to 1845.8 feet, refer to Appendix C, photo 6. This line illustrates the presence and action of water. As a result, it leaves a boundary below which little or no vegetation will grow. Since the OHWM is defined by the destruction of terrestrial vegetation; this line supports the OHWM elevation of 1845.6 feet.

Outlet Structure

The outlet structure is a concrete weir located on the southwest shore in the SW1/4 of Section 22. Constructed in 1929, this structure has an elevation of 1844.9 feet msl; See photo 10 and 11 in appendix E for more detail.

On an average, the OHWM is 0.5 feet above the outlet; however, it can range from 0.3 feet to 0.8 feet above. The OHWM for Pickerel Lake is 0.7 feet above the outlet structure.

Water Level Elevations

The water level elevation for Pickerel Lake was 1845.0 feet msl at the time of the investigation. The water level was 0.1 feet above the outlet structure. Appendix A, Table 2, shows a list of water level records.

Water Rights

There have been two Water Rights issued relating to the waters of Pickerel Lake. Both are Vested Water Rights claimed by the Department of Game, Fish and Parks. Vested Right No. 629-3 is for the annual recharge of 3000 acre feet or as required to fill to the outlet elevation. The priority date for this Vested Right is 1889. The second Vested Right No. 673-3 is for the non-consumptive use of .166 cubic feet per second (cfs), used by the fish hatchery for fish propagation. The priority date for this Vested Right is 1925.

CONCLUSIONS

Based on the lakeside base elevation of trees, erosion lines, and the outlet structure, the OHWM for Pickerel Lake has been determined to be at an elevation of 1845.6 feet msl.

REPRODUCTIONS. REDUCTION 25:1 ROLL NO. 10
 DATE MICROFILMED 2-28-70
 OPERATOR

RECOMMENDATIONS

Recommendations to the Water Management Board by the Division of Water Rights Staff.

1. That 1845.6 feet msl be established as the Ordinary High Water Mark for Pickerel Lake.
2. That Vested Water Right No. 629-3 be clarified to allow the water level at Pickerel Lake to be maintained at an elevation no higher than 1844.9 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 Pickerel Lake, contact Department of Water and Natural Resources, Water Rights Division, Pierre, South Dakota.

STATE OF SOUTH DAKOTA) ss
COUNTY OF HUGHES)

Swore to, before me, this 7th day of December, 1982.

Louis L. Ries
Notary Public

LOUIS L. RIES, Notary Public
My Commission Expires
February 3, 1983

APPENDICES

Appendix A.....	Pickerel Lake Data
	Table 1 Data Summary
	Table 2 Water Level Records
	County Map
	Watershed Map
	Bathymetric Map
Appendix B.....	Photos of Trees Below OHWM
Appendix C.....	Photos of Trees At OHWM
Appendix D.....	Photos of Trees Above OHWM
Appendix E.....	Photos of Erosion Marks

REPRODUCTION OF SECTION 25.1 ROLL NO. 10 DATE MICROFILMED 7-11-80 OPEN OPERATING

Appendix A

Pickereel Lake Data

Table 1 Data Summary

Surface Area.....	955 acres ¹
Watershed Area.....	17,165 acres ¹
Maximum Depth.....	43.3 feet ¹
Mean Depth.....	20.0 feet ¹
Volume.....	19,100 acre feet ¹
Total Dissolved Solids.....	300 mg/l ¹
Aquifer Connection.....	extensive ²
Outlet Elevation.....	1844.9 feet (msl)
OHWM Elevation.....	1845.6 feet (msl)
Water Rights.....	No. 630-3....3000 acre feet GF&P, Annual Recharge, Priority 1889No. 673-3.....166 cfs GF&P, Fish Hatchery, priority 1925

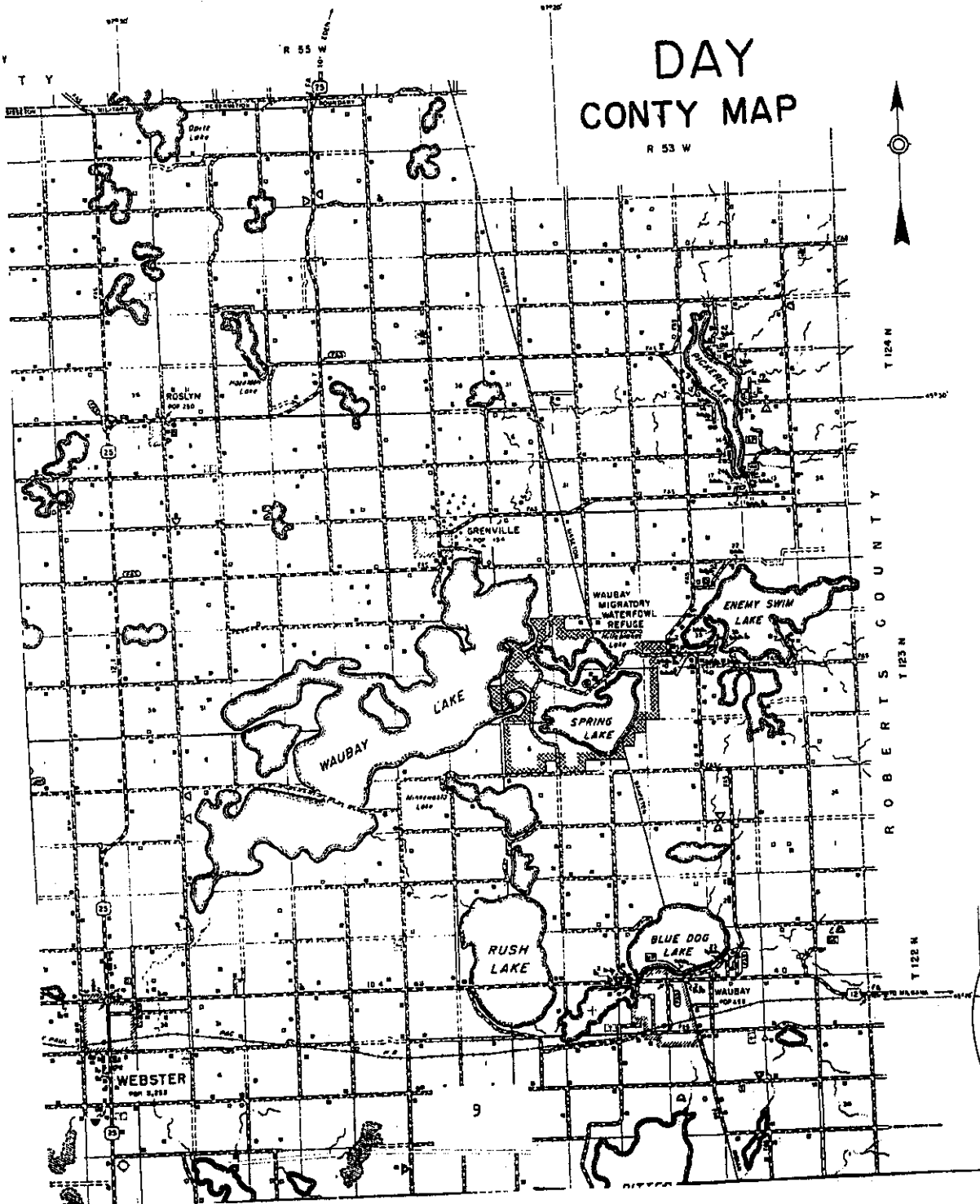
Table 2 Water Level Records²

<u>Year-Month</u>	<u>Water Level</u>	<u>Year-Month</u>	<u>Water Level</u>	<u>Year-Month</u>	<u>Water Level</u>
1928	1848.2	1943 June	1845.2	1956 Nov	1843.8
1932	1843.4	1943 Nov	1844.7	1957 Sep	1843.3
1933	1841.9	1944 Jul	1845.0	1959 Apr	1835.0
1934 June	1841.2	1944 Nov	1844.6	1960 Apr	1845.2
1934 Aug	1840.5	1945 Oct	1844.6	1961 June	1844.4
1935 May	1841.1	1946 May	1844.9	1961 Dec	1843.7
1935 Oct	1840.3	1946 Oct	1844.9	1962 June	1845.5
1936 Apr	1841.0	1947 May	1844.1	1962 Dec	1845.0
1936 Nov	1838.2	1948 May	1844.8	1963 May	1845.1
1937 May	1844.0	1949 May	1844.7	1964 May	1845.0
1937 Oct	1843.4	1949 Nov	1843.7	1964 Oct	1844.3
1938 June	1844.9	1950 May	1845.0	1966 May	1845.2
1938 Oct	1843.8	1951 Jan	1844.3	1966 Nov	1844.7
1939 May	1845.4	1951 May	1845.0	1967 May	1845.1
1939 Nov	1843.8	1952 Feb	Not measured	1969 May	1844.6
1940 May	1844.9	1952 May	1845.3	1968 Nov	1844.3
1940 Oct	1843.8	1953 Nov	1842.1	1969 May	1845.2
1941 June	1845.5	1954 Apr	1844.9	1969 Sep	1844.1
1941 Nov	1844.7	1954 Sep	1844.3	1970 May	1845.1
1942 May	1846.0	1955 May	1844.6	1970 Dec	1844.6
1942 Nov	1845.1	1956 May	1844.9	1976 Fall	1843.1
				1982 June	1845.0
				1982 Oct	1844.5

Measuring Point

Chiseled x on small cement culvert just SW of Fish Hatchery (124-54-35
bcac) elev. 1848.18 ft. msl.

REPRODUCTION: REDUCION 1:25000 ROLL NO. 10 DATE MICROFILMED 11-10-76 CHEM. OPERATOR



REPRODUCTIONS: REDUCTION 25:1 ROLL NO. 10 DATE MICROFILMED

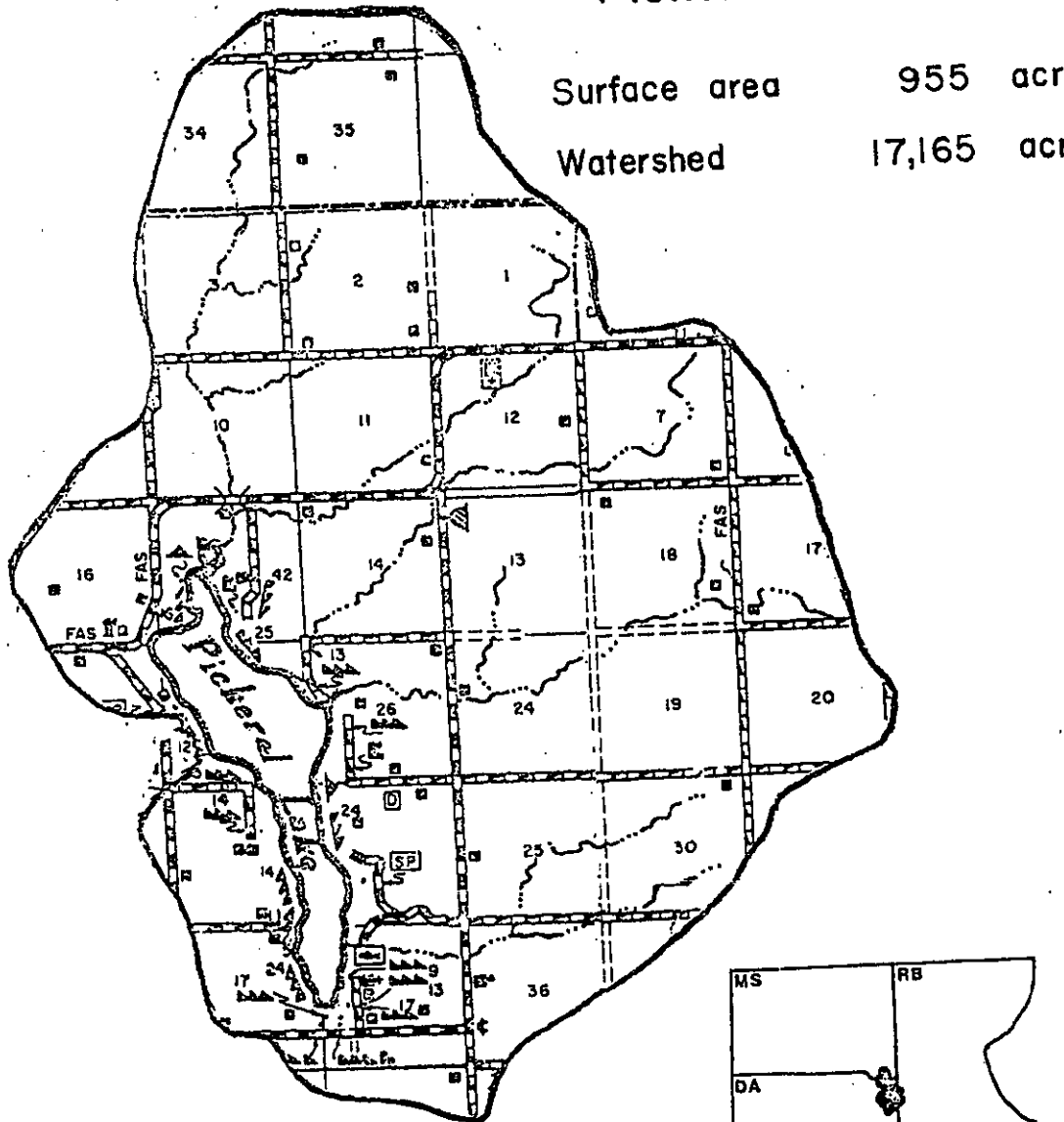
CAMERA OPERATOR

WATERSHED MAP

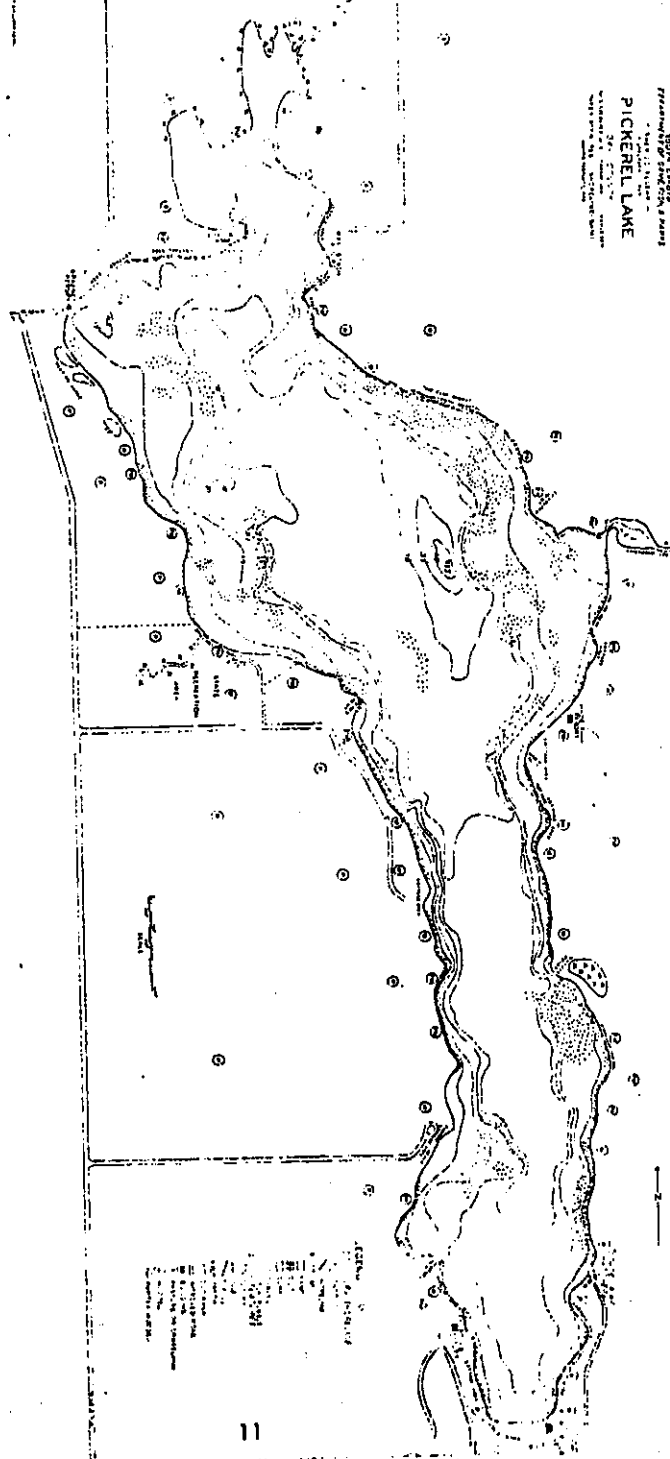
Pickere Lake

Surface area 955 acres

Watershed 17,165 acres



BATHYMETRIC MAP



RELATIONS: REDUCTION 25:1

ROLL NO. 10

DATE MICROFILMED

OVER OPERATOR

REPRODUCTIONS. REDUCTION 25:1 ROLL NO. 10

2-22-40
DATE MICROFILMED



CAMERA OPERATOR



PHOTO NO. 2 Description: Slippery Elm. Dia. 2.3 ft., Age 75 years
Base Elevations: Lakeside----1845.3
 Landside----1848.6



PHOTO NO. 3 Description: Cottonwood, Dia. 2.7 ft., Age 60 years
Base Elevations: Lakeside----1844.7
 Landside----1846.7

REPRODUCTIONS.

REDUCTION

25:1

ROLL NO

10

DATE MICROFILMED

CAMERA OPERATOR

The following photos are a sample of indicators which are at or close to the OHWM.



PHOTO NO. 4 Descriptions:
 Left tree: Cottonwood Right trees: Cottonwood
 Dia. 0.7 ft., Age 45 years Dia. 0.9 ft. and 1.5 ft., Age 70 years
 Base Elevation: Base Elevation:
 Lakeside---1845.6 Lakeside--- 1844.1



PHOTO NO. 5 Description: Elm, Dia. 1.5 ft., Age 55 years
 Base Elevations: Lakeside---1846.3
 Landside---1846.7

REPRODUCTIONS: REDUCTION 330:7 ROLL NO. 22
 DATE MICROFILMED 4/2/74
 CAMERA OPERATOR



PHOTO NO. 6 is of the shoreline along the south edge of Pickerel Lake. The elevations ranged from 1845.6 feet to 1845.8 feet. The OHWM elevation of 1845.6 is consistent with this line.

REPRODUCTIONS.

REDUCTION

25:1

ROLL NO.

10

DATE MICROFILMED

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The remaining photo's are of trees which fall above the OHWM.



PHOTO NO. 7 Description: Cottonwood, Dia. 2.3 ft., Age 60 years
 Tree 1 Base Elevations: Lakeside----1847.0 Landside----1847.3
 Tree 2 Description: Elm, Dia. 1.3, 1.1, 1.0 ft., Age 50 years
 Base Elevations: Lakeside----1846.2 Landside----1846.8



PHOTO NO. 8
 Description: Cottonwood
 Dia. 2.0 ft, Age 60 years
 Base Elevations:
 Lakeside----1846.8
 Landside----1847.1

REPRODUCTIONS.

REDUCTION

35:1

ROLL NO

10

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PHOTO NO. 9 Description: Cottonwood, Dia. 1.9 ft., Age 60 years
 Base Elevations: Lakeside----1847.1
 Landside----1848.1



PHOTO NO. 10 Description: Cottonwood, Dia 1.2 ft., Age 40 years
 Base Elevations: Lakeside----1847.1
 Landside----1847.4

REPRODUCTIONS.

REDUCTION

35:1

ROLL NO.

10

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APPENDIX E
OUTLET STRUCTURE



PHOTO NO. 11
Elevation: 1844.9



PHOTO NO. 12

REPRODUCTIONS, REDUCTION

25:1

ROLL NO

10

DATE MICROFILMED

CAMERA OPERATOR

BIBLIOGRAPHY

- ¹ Ronald M. Koth, South Dakota Lakes Classification and Inventory, South Dakota Department of Water and Natural Resources, Office of Water Quality, July 1, 1981, pp 260-266.
- ² State Lakes Preservation Committee, A Plan for the Classification, Preservation, and Restoration of Lakes in Northeast South Dakota, July 1977, pp 111-112.

C80913JJ.wr

AGENDA

Water Management Board Meeting

December 9 & 10, 1982

PLACE: Dakota Room, Sheraton Inn, 1400 NW 8th Ave, Aberdeen, South Dakota

THURSDAY, December 9, 1982

- 8:30 am Call to Order
Approval of October 7 & 8, 1982 Minutes
Set April Meeting Time & Date April 14 & 15 in Sioux Falls suggested
Status & Review of Water Rights Litigation
- 9:00 am Administer Oath to Water Rights Staff
Cancellation Considerations (see attached list)
"Vested Right" Considerations
Requests for Extension of Time
- 9:45 am Break
- 10:00 am Introduction of Board, Legislative Oversight Committee and Water Rights Staff
Requirements before Water Permit Applications can be Advertised and at the Time of the Hearing
Water Permit Application Hearings (see attached list)
- 12:00 noon Lunch
- 1:00 pm Conclusions of Law, Findings of Fact & Final Decision
1767-2 Billy Joe & Vlasta Kirk
Water Right Application Hearings (continued)
- 1:30 pm Hearing on Order by Chief Engineer to Remove Rock Dam located south of Freeman in NW 1/4 Section 36, R56W, T98N
- 2:30 pm Break
- 2:45 pm Consideration of Motion for Order Compelling Discovery with regard to Proposed Cancellation of Bernard Bruch, Antonette Pelkey and Truman Quail Water Right Filings
- 3:00 pm Hearing on Proposed Amendments to General Rules 74:02:01
- 4:30 pm Whitewood Creek Discussion (Water Quality Division)
Recess for Day

FRIDAY, December 10, 1982

- 9:00 am Reconvene
Establishment of Ordinary High Water Marks & Clarify Department of Game, Fish & Parks and other Water Rights
- 917-3 Clear Lake - Marshall County
 - 946-3 Buffalo Lakes & Almos Lake - Marshall County
 - 915-3 Roy Lake - Marshall County
 - 930-3 Enemy Swim Lake & Campbell Slough - Day County
 - 926-3 Pickerel Lake - Day County
 - 639-3 Waubay Lakes (North & South) - Day County
 - 636-3 Spring Lake - Day County
 - 635-3 Hillebrands Lake & Swan Pond - Day County
- Other Business
Adjourn

RECORDS SECTION 2571 - VOL NO 102 - DATE MICROFILMED 11/10/82 - CHERRY CREEK

NEW APPLICATIONS DECEMBER 9 & 10, 1982

No.	Name	Location	County	CFS	Acreage	Source
1229-1A	City of Spearfish	2E, 1S Spearfish	Lawrence	1.35	municipal	863' deep Madison well
1265-1	Nell & Margaret Mutchler	3/4N Spearfish	Lawrence	0.39 add'l	comm & trailer	296' deep Minnelusa well
1830-2	City of Box Elder	1S Box Elder	Pennington	1.11	municipal	4200' deep Madison well
1831-2	Ray J Hillenbrand	1 1/2W Caputa	Pennington	no add'l	no add'l	Rapid Creek
4917-3	Dahe Gulde Asso., Inc.	20W, 9S Onida	Sully	0.11	commerical	64' deep well
4929-3	Corson Village Water Asso.	in city limits	Minnehaha	0.05	municipal	92' deep well
4930-3	WEB Water Develop. Asso.	12SE Mobridge	Walworth	15.00	RWS	Missouri River
4931-3	Benson Hereford Ranch	4N Clark	Clark	no add'l	no add'l	to add 55' deep well
4932-3	Hallett Construction Co.	8N, 1 1/2E Watertown	Codington	5.00	Industrial	11' deep dugout (gravel pit)
4933-3	Hallett Construction Co.	3/4E Watertown	Codington	11.00	Industrial	Willow Creek
4934-3	Richard Jongeling	3W, 5N Estelline	Hamlin	1.70	119.00	56' deep well
4935-3	Larry Nielson	2S, 1 1/2W Tulare	Spink	0.23	40.00	124' deep well
4936-3	Casa Del Rosa Water	5W, 1N Harrisburg	Lincoln	0.10	sub housing	196' deep well
4937-3	Vernon L Parks	1E, 1S Lily	Day	1.11 add'l	no add'l	2-187' deep wells
4938-3	James Adler & Granite View Farms	5E Milbank	Grant	2.10	160.00	120' deep well
<u>Vested Right Consideration</u>						
4928-3	Corson Village Water Asso.	in city limits	Minnehaha	0.01	municipal	92' deep well

the OHWM is established in high water years or low water years, the Board will come up with the same figure.

Mr. Miller questioned what will happen if this spring the lake hits the high level. Some areas will be short of shore line. Can this be rectified?

Mr. Rylance stated things are always subject to change. This history of the lake has been that this is where the OHWM has been. In the normal course of events nature has said this is where the OHWM is. The Engineers put a figure to that elevation.

Mr. Arend MOVED, SECONDED by Mr. Walter that 1854.4 feet msl be established as the Ordinary High Water Mark for Enemy Swim and Campbell Slough. That Vested Water Right No. 630-3 be clarified to require outlet for Enemy Swim and Campbell Slough to be at an elevation of 1853.6 feet msl. MOTION CARRIED.

PICKEREL LAKE

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

Mr. Opitz read a statement by the Department of Game, Fish and Parks Secretary into the records (copy on file). The statement concurred with the recommendation of the staff.

Mr. Walter MOVED, SECONDED by Mr. Arend that 1845.6 feet msl be established as the Ordinary High Water Mark for Pickerel Lake. That Vested Water Right No. 629-3 be clarified to require the outlet for Pickerel Lake to be at an elevation of 1844.9 feet msl. MOTION CARRIED.

Meeting recessed at 11:25 am.

Meeting reconvened at 11:35 am.

WAUBAY LAKE

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

Mr. Opitz read a statement by the Department of Game, Fish and Parks Secretary into the record (copy on file).

Mr. Harms questioned that because the water has been maintained in Waubay Lake with very little flushing of dissolved solids, they are at approximately 7500 milligram per liter now, what is the level when the fish can no longer survive?

Mr. Opitz stated he did not know. The fish do survive in Waubay Lake. Fishing has been relatively good over the past years. Since about 1976 there has not been much fishing in the area.

Mr. Harms questioned if sometime in the future there will have to be a larger outlet to flush the lake so there is enough water for the fish to survive?

RECOMMENDATION

62.1

ROLL NO. 16

DATE MICROFILMED

CAMERA OPERATOR



DENR
SOUTH DAKOTA

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
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Memo to File

Pickerel Lake in Day County

VWR No. 673-3

The OHWM was set by the Water Management Board on December 9 & 10, 1982.

OHWM elevation 1845.6 fmsl NGVD29

The outlet elevation was set by the Water Management Board on December 9 & 10, 1982.

Outlet elevation 1844.9 fmsl NGVD29